## **Clearinghouse Rule 95-115**



### **Wisconsin Department of Transportation**

Tommy G. Thompson Governor Charles H. Thompson Secretary OFFICE OF GENERAL COUNSEL P. O. Box 7910 Madison, WI 53707-7910

March 7, 1996

Mr. Gary Poulson Deputy Revisor of Statutes 131 West Wilson Street, Suite 800 Madison, Wisconsin 53703

#### RE: CLEARINGHOUSE RULE 95-115

In the Matter of the Adoption of **TRANS 131**, Wisconsin Administrative Code, relating to **motor vehicle inspection and maintenance program (MVIP).** 

Dear Mr. Poulson:

Enclosed for filing, pursuant to s. 227.20, Wis. Stats., is a certified copy of **CR 95-115**, an administrative rule relating to the above-mentioned matter. This rule is submitted by the Wisconsin Department of Transportation.

PLEASE REPLACE THE NOTE FOLLOWING TRANS 131.01(2) WITH THE FOLLOWING:

NOTE: Forms used in this chapter are: MVD 2016, substitute renewal notice; MVD 2470, vehicle inspection report; MVD 2472, application for letter of temporary exemption from vehicle emission inspection; MV 2505, temporary license plate application; MV 2588, exchanged engine certificate; MV 2594, quality assurance inspection report. Copies can be obtained from the Wisconsin Department of Transportation, Vehicle Emission Section, P. O. Box 8917, Madison, WI 53708-8917.

Sincerely,

Iúlie A. Johnsór Paralegal



cc: Ann Agnew/Dorothy Kapke/Jim McDonnell/Roger Cross/Hank Ellingson/TT Ed Hammer/Mike Friedlander/Jerry Medinger

#### CERTIFICATE

STATE OF WISCONSIN ) ) ss. DEPARTMENT OF TRANSPORTATION )

TO ALL WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, CHARLES H. THOMPSON, Secretary of the Wisconsin Department of Transportation and custodian of the official records, do hereby certify that the rule, relating to **motor vehicle inspection and maintenance program (MVIP)**, was duly approved and adopted by this Department on March b, 1996.

I further certify that this copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.



IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department of Transportation at 4802 Sheboygan Avenue, in the City of Madison, Wisconsin, this \_\_\_\_\_ day of **March**, 1996.

CHARLES H. THOMPSON Secretary



5-1-96

### STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



### Analysis Prepared by the Wisconsin Department of Transportation

STATUTORY AUTHORITY: ss. 110.06, 110.20(9) and 227.11(2)(a), Stats. STATUTE INTERPRETED: s. 110.20, Stats.

<u>General Summary of Rule</u>. 1993 Wisconsin Act 288 requires amendments to s. 110.20, 341.04, 341.05, 341.09, 341.10, 341.63, Stats., and substantial revision to ch. Trans 131, Wis. Admin. Code. The necessity for both statutory and administrative code change was established by the 1990 Clean Air Act Amendments which included several inspection and maintenance program enhancements. These amendments apply federal

standards referenced in the USEPA publication "High-Tech I/M Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications-Revised Technical Guidance," dated April 1994. The Attorney General and the Revisor of Statutes have consented to the incorporation by reference of these federal standards.

The Wisconsin Administrative Code sections below were drafted to implement the above changes. Other revisions which include numerous additions, corrections and deletions were also made to this chapter in the interests of both grammatical accuracy and proper format.

Trans 131.02 describes new words and phrases detailed in 40 CFR, Part 51, Subpart S Inspection/Maintenance Program Requirements; Final Rule dated November 5, 1992.

Trans 131.03(2) eliminates fleet inspection testing, establishes biennial testing frequency and requirements for remote sensing failure.

Trans 131.03(4) adds oxides of nitrogen as pollutant to be measured.

Trans 131.03(6)(a)4 specifies fuel type testing for dual fueled vehicles.

Trans 131.03(6)(b)(1) describes transient emission test procedures, criteria for second chance test, conditions for test rejection, requirements for alternate two speed idle test, and procedures for under-powered vehicles.

Arrans 131.03(7) amends conditions under which emission equipment inspection is performed. It also adds components and modifies emission equipment inspection oriteria.

Trans 131.03(8) defines evaporative emission integrity (pressure) testing and applicability to nonexempt fleet.

Trans 131.03(9) defines evaporative emission purge testing and applicability to nonexempt fleet.

Trans 131.03(10) reserves testing procedure for On-Board Diagnostics (OBD).

Trans 131.03(11) revises criteria for reinspection.

Trans 131.03(12) revises and adds new criteria for inspection refusal.

Trans 131.03(13) modifies testing criteria for Reconstructed and Homemade vehicles by requiring completed MV2588 engine exchange certificate instead of signed statement.

Trans 131.03(14) expands model years covered and modifies testing criteria for vehicles with exchanged engines by requiring completed MV2588 engine exchange certificate instead of signed statement.

Trans 131.03(15) replaces GVW with GVWR as means to determine inspection standards for trucks and vans.

Trans 131.03(16) revises information included on Vehicle Inspection Report (VIR). It also adds supplemental diagnostic data and listing of area emission repair facilities for failing vehicles.

Trans 131.04(1) revises eligibility standards for receiving a waiver of compliance. For FY 1981 and newer vehicles presented for waiver consideration, only repairs performed at a facility employing a recognized automotive technician shall be applied toward the waiver cost limit.

Trans 131.04(2) revises waiver of compliance duration from one year to time of next required inspection.

Trans 131.05(1) revises waiver emission equipment inspection criteria to include proper connection of equipment rather than only presence of equipment. Inspection expanded to include two additional equipment items.

Trans 131.08(1) revises eligibility for temporary exemption from emission inspection requirements.

Trans 131.09 is recreated to include process, conditions and limitations for issuing temporary operating permits.

Trans 131.10 is recreated to include process, conditions and exceptions to emission inspection reciprocity.

Trans 131.11 is recreated to include expanded auditing requirements and penalties for noncompliance with performance standard.

Trans 131.12 is recreated to include expanded equipment specifications and EPA approved quality control measures. Reserves On-Board Diagnostics Test Equipment requirements. Reserves Remote Sensing Test Equipment Requirements.

Trans 131.13 is recreated to include training and licensing requirements of vendor employes performing inspection functions. Also details auditing, penalties and due process associated with observed inspector performance.

Trans 131.13(6) is recreated to include process and conditions of the challenge mechanism, which enables a motorist to contest results of an emission inspection.

Trans 131.14 is recreated to define the requirements, scope, emission standards, notification process and equipment specification related to remote sensing.

Trans 131.15 is recreated to include the data collection and reporting requirements of repair facility performance monitoring.

Trans 131.16 is recreated to define criteria of automotive emission repair technician training, standards for program and technician recognition, and quality assurance provisions.

**Fiscal Effect**. The Department anticipates that this rulemaking will have no direct fiscal impact. Nonexempt vehicles owned by the state, counties, cities, villages and towns within the nonattainment area will continue to require inspections. The frequency of testing will change from annual to biennial. Vocational, technical and adult education school districts could see an increase in the demand for automotive emission repair training courses.

**Final Regulatory Flexibility Analysis**. These changes will not have a significant effect on any small businesses located within the seven county I/M area.

Certain entities such as automobile repair facilities, automobile and truck dealerships, and automotive tool manufacturers are indirectly affected by I/M program requirements. There are no special compliance or reporting requirements placed on these small businesses and the effect, in most part, should be positive rather than negative. A report, <u>Employment Effects of Shifting to Enhanced Inspection and Maintenance Programs in Selected Areas</u>, prepared by Booz, Allen & Hamilton for the Coalition for Safer Cleaner Vehicles in June, 1992, estimates that implementing enhanced I/M programs in 74 areas of the country will result in an increase of 8,420 jobs, \$666 million in repair sales, and more employment in the I/M industries in every state.

Some small businesses, fleet operations with testable vehicles between 8,000 and 14,000 pounds gross vehicle weight, for example, that previously have not been affected by I/M will be required to have vehicles inspected under enhanced I/M. Every effort has been made to draft this rule according to s. 227.114(3), Stats., to reduce the impact on small business and still meet statutory objectives.

<u>Preparation and Copies of Rule</u>. Preparation of this rule was done by Edwin J. Hammer, Acting Chief, Motor Vehicle Inspection Program, Department of Transportation, Bureau of Field Services, phone (608) 266-2653. Copies of the rule may be obtained upon request, without cost, by writing to Kathy Degenhardt, Program Assistant, Motor Vehicle Inspection Program, Department of Transportation, Bureau of Field Services, 4802 Sheboygan Avenue, Room 266, P. O. Box 8917, Madison, WI 53707-8917, or by calling (608) 266-4129. Alternate formats of the rule will be provided to individuals at their request.

#### TEXT OF RULE

Under the authority vested in the state of Wisconsin, department of transportation, by ss. 110.06, 110.20(9) and 227.11(2)(a), Stats., the department of transportation hereby adopts an order amending a rule interpreting s. 110.20, Stats., relating to the motor vehicle inspection and maintenance program (MVIP).

**SECTION 1**. Trans 131.02(intro.) is amended to read:

Trans 131.02 DEFINITIONS. Words and phrases defined in s. 110.20, Stats., have the same meaning in this chapter unless a different definition is specified. In addition, in this chapter:

**SECTION 2.** Trans 131.02(1) and (2) are renumbered 131.02(2) and (3), respectively.

SECTION 3. Trans 131.02(1) is created to read:

Trans 131.02(1) "Air pollution control equipment" or "emission equipment" means any equipment or feature which constitutes an operational element, device or mechanism which is part of the air pollution control system on a motor vehicle.

SECTION 4. Trans 131.02(3) is renumbered 131.02(6) and amended to read:

Trans 131.02(6) "Contractor" means a person with whom the department has a contract that provides for the operation of one or more inspection stations <u>or for the performance of a service related to the Wisconsin vehicle emission inspection program.</u>

SECTION 5. Trans 131.02(3m) is created to read:

Trans 131.02(3m) "Collector vehicle" means a nonexempt vehicle with a collector special interest vehicle registration under s. 341.266, Stats.

**SECTION 6**. Trans 131.02(4) is renumbered 131.02(7).

**SECTION 7**. Trans 131.02(4) is created to read:

Trans 131.02(4) "Constant volume sampler" means a system that dilutes the engine exhaust sample with ambient air so that the total combined flow rate of exhaust and dilution air mix is nearly constant for all engine operating conditions.

SECTION 8. Trans 131.02(5) is repealed.

SECTION 9. Trans 131.02(6) is renumbered 131.02(8) and amended to read:

Trans 131.02(8) "Emission equipment inspection" means an inspection for the presence and proper connection of selected emission <u>air pollution control</u> equipment.

**SECTION 10**. Trans 131.02(7) is renumbered 131.02(9) and amended to read: Trans 131.02(9) "Emission standards <u>limitations</u>" means the maximum vehicle emission concentrations in s. NR 485.04.

**SECTION 11**. Trans 131.02(8) and (9) are renumbered 131.02(10) and (12), respectively, and amended to read:

Trans 131.02(10) "Emission test" means an idle mode test or a combination of the loaded mode, or high idle, and idle mode tests the transient emission test or 2-speed idle test described in the federal rule, used to determine compliance with applicable vehicle exhaust emission limitations for carbon monoxide, hydrocarbons, and oxides of nitrogen.

(12) "Exempt vehicles" means all vehicles other than nonexempt vehicles which are identified in s. 144.42(5), Stats., and s. NR 485.04(10).

**SECTION 12**. Trans 131.02(10) is renumbered 131.02(13).

**SECTION 13**. Trans 131.02(11) is repealed and recreated to read:

Trans 131.02(11) "Evaporative emission test" means the combination of an evaporative emission integrity (pressure) test and an evaporative system purge test of a vehicle's evaporative emission control system.

SECTION 14. Trans 131.02(12) and (13) are repealed.

SECTION 15. Trans 131.02(14) is renumbered 131.02(16).

**SECTION 16**. Trans 131.02(14) is created to read:

Trans 131.02(14) "Fast pass/fail algorithm" means a decision making process that is programmable into a testing system which can logically determine whether or not a vehicle will pass or fail the emission test before completion of the entire inspection.

SECTION 17. Trans 131.02(15) is renumbered 131.02(19) and amended to read:

Trans 131.02(19) "Government vehicle" means a motor vehicle both owned by this

state or by any county, municipality, or federally-recognized Indian tribe or band and registered under s. 341.26(2m), Stats., or a vehicle owned or leased by the United States.

**SECTION 18**. Trans 131.02(15) is created to read:

Trans 131.02(15) "Federal rule" means 40 CFR part 51, subpart S, inspection/maintenance program requirements; final rule.

NOTE: All references made to the Federal Rule in this document are to 40 CFR Part 51, Subpart S Inspection/Maintenance Program Requirements; Final Rule dated November 5, 1992, as amended on November 9, 1993 and June 23, 1994.

SECTION 19. Trans 131.02(16) is renumbered 131.02(20).

**SECTION 20**. Trans 131.02(17) is repealed and recreated to read:

Trans 131.02(17) "GPM" means grams per mile.

SECTION 21. Trans 131.02(18) is renumbered 131.02(21).

SECTION 22. Trans 131.02(18) is created to read:

Trans 131.02(18) "GVWR" means gross vehicle weight rating and has the same meaning as provided in s. 340.01(19r), Stats.

**SECTION 23**. Trans 131.02(19) and (20) are renumbered 131.02(22) and (23), respectively, and amended to read:

Trans 131.02(22) "Inspection" means the mandatory vehicle emission test and emission equipment inspection required by s. 110.20, Stats.

(23) "Inspection report" has the same meaning as provided in sub. (34) (54).

**SECTION 24**. Trans 131.02(20m) is created to read:

Trans 131.02(20m) "Hobbyist vehicle" means a nonexempt vehicle with a hobbyist registration under s. 341.68, Stats.

SECTION 25. Trans 131.02(21) is renumbered 131.02(24).

SECTION 26. Trans 131.02(22) is renumbered 131.02(25) and amended to read:

sion test and emission equipment inspection for the contractor.

SECTION 27. Trans 131.02(23) is repealed.

SECTION 28. Trans 131.02(24) is renumbered 131.02(29) and amended to read:

Trans 131.02(29) "Model year" means the date of manufacture of the original vehicle within the annual production period of the vehicle as designated by the manufacture, or if a reconstructed or homemade vehicle, the first year of titling. If the manufacture does not designate a production period, the term "model year" means the calendar year of manufacture. Determination of model year shall be as indicated <u>in the VIN or</u> on the vehicle's registration documents.

SECTION 29. Trans 131.02(25) is repealed.

SECTION 30. Trans 131.02(26) and (27) are renumbered 131.02(30) and (31), respectively.

SECTION 31. Trans 131.02(27) is created to read:

Trans 131.02(27) "Mass emissions measurement" means measurement of the volume of vehicle exhaust sampled during a transient emissions test measured in mass units of grams per mile.

SECTION 32. Trans 131.02(28) is renumbered 131.02(32) and amended to read:

Trans 131.02(32) "NO" "NO," means nitric oxide oxides of nitrogen.

**SECTION 33**. Trans 131.02(28) is created to read:

Trans 131.02(28) "Master automotive technician" means a person possessing the highest level of any nationally recognized certification organization for automotive emission-related diagnosis and repair.

SECTION 34. Trans 131.02(29) and (30) are repealed.

SECTION 35. Trans 131.02(31) and (32) are renumbered 131.02(36) and (37), respectively.

**SECTION 36**. Trans 131.02(33) is repealed and recreated to read:

Trans 131.02(33) "OBD" means the on-board diagnostic system installed on vehicles by the manufacturer to monitor and adjust the performance of emission control equipment as well as store information related to that performance.

SECTION 37. Trans 131.02(34) is renumbered 131.02(41).

SECTION 38. Trans 131.02(34) is created to read:

Trans 131.02(34) "OBD II" means the on-board diagnostic system installed on 1994 and newer vehicles by the manufacturer that meets the regulations promulgated by the USEPA under 42 U.S.C. 7401-7671q.

SECTION 39. Trans 131.02(35) and (36) are renumbered 131.02(43) and (44) and amended to read:

Trans 131.02(43) "Surveillance gas" means a gas used by the department to verify the calibration of emission analyzers used by inspection stations and by fleet in-

(44) "Tamper" or "tampering" has the same meaning as in s. 144.42(6)(a)3, Stats.

SECTION 40. Trans 131.02(35) is created to read:

Trans 131.02(35) "Performance monitoring" means the system of evaluating automotive repair facilities' performance by collecting and reporting the repair data as recorded on the vehicle inspection report.

SECTION 41. Trans 131.02(37) is renumbered 131.02(48).

**SECTION 42**. Trans 131.02(38) and (39) are renumbered 131.02(51) and (52), respectively, and amended to read:

Trans 131.02(51) "Van" means a motor vehicle constructed on a truck chassis, or indicated as a truck on the manufacturer's statement of origin, with a completely enclosed driver and cargo compartment that may be used <u>useable</u> as a cargo carrying vehicle or as a passenger vehicle depending upon how it is equipped equipment.

(52) "Vehicle" <u>or "motor vehicle"</u> has the same meaning as provided in s. 340.01(35), Stats.

SECTION 43. Trans 131.02(38) and (39) are created to read:

Trans 131.02(38) "Recognized automotive emission repair technician" means a person who has received and has proof of formal training in both diagnosis and repair of automotive engines and related systems.

(39) "Recognized repair facility" means a franchised new car dealer or other business with a Wisconsin sales tax number that performs emission repairs as a regular part of its business activities and employs at least one recognized automotive emission repair technician.

SECTION 44. Trans 131.02(40) is renumbered 131.02(54) and amended to read

Trans 131.02(54) "Vehicle inspection report" means a serially numbered document issued at an inspection station <u>or technical assistance center</u> at the time of vehicle inspection, indicating that the vehicle has been inspected in accordance with the provisions of this chapter.

SECTION 45. Trans 131.02(40) is created to read:

Trans 131.02(40) "Reconstructed vehicle" has the same meaning as provided in s. 341.268(1)(d), Stats.

**SECTION 46**. Trans 131.02(41) and (42) are renumbered 131.02(56) and (58), respectively, and amended to read:

Trans 131.02(56) "Voluntary inspection" means the voluntary presentation <u>of a</u> <u>nonexempt vehicle</u> for an emission inspection <del>of a nonexempt vehicle</del>.

(58) "Waiver surveillance investigator" means the department employe or designated contractor representative, who approves or disapproves applications for waivers.

**SECTION 47**. Trans 131.02(42), (45), (47), (49), (50), (50m), (53), (55) and (57) are created to read:

Trans 131.02(42) "Remote sensing test" means the test conducted under s. Trans s. 131.14.

(45) "Technical assistance center" means either a separate contractor facility or a portion of an inspection station which, under the direction of a master automotive technician, is equipped to perform both emission inspections and complete diagnostic evaluations of nonexempt vehicles.

(47) "Transient emission test" means an emission test of a vehicle while it is driven through a computer-monitored driving cycle on a dynamometer with power absorption and inertia weight settings appropriate for the vehicle.

(49) "Two speed idle test" means a nontransient, steady-state emission test which measures exhaust emissions at idle using an infrared exhaust gas analyzer.

(50) "USEPA" means the United States Environmental Protection Agency.

(50m) "USEPA technical guidance" means the USEPA publication "High-Tech I/M Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications-Revised Technical Guidance", dated April, 1994, which is incorporated herein by reference. Any alternative test procedures or changes in procedural details shall be approved by the USEPA administrator prior to use.

NOTE: All references made to the USEPA Technical Guidance in this document are to High-Tech I/M Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications-Revised Technical Guidance dated April, 1994. Copies are on file with the Revisor of Statutes Bureau and the Attorney General's office. These procedures are available in published form from the Wisconsin Department of Transportation, Bureau of Field Services, P. O. Box 8917, Room 266, Madison, WI 53707-8917.

(53) "Vehicle inspection notice" means a document mailed to vehicle owners as a result of failing a remote sensing test indicating that the nonexempt vehicle has been

inspected in accordance with the provisions of s. Trans 131.14 and, if necessary, shall be presented at an inspection station for inspection under s. 110.20(6)(a)4, Stats.

(55) "VIN" means a unique vehicle identification number as defined in s. 340.01(23r).

(57) "Waiver emission equipment inspection" means a visual inspection conducted to determine the presence and proper connection of selected emission equipment on vehicles presented for waiver determination under s. Trans 131.04.

SECTION 48. Trans 131.03(title), (1)(a), (2)(intro.), (a) and (b) are amended to read:

# Trans 131.03 (title) EMISSION TEST, EMISSION EQUIPMENT INSPECTION, EVAPORATIVE EMISSION TEST, ON-BOARD DIAGNOSTIC CHECKS, AND REINSPECTION. (1) GENERAL. (a) All nonexempt vehicles that are customarily kept in counties certified under s. 110.20(5)(a), Stats., or in a county whose county board adopts a resolution under s. 110.20(5)(b), Stats., shall be inspected at an inspection station or a fleet inspection station. Penalty for failure to comply with this section is consists of either denial of registration renewal or suspension of vehicle registration as set forth in s. 341.63(1)(e), Stats. To reinstate vehicle registration, a fee prescribed by s. 341.36(1), Stats., is required.

(2) WHEN INSPECTION REQUIRED. (intro.) Nonexempt vehicles subject to an inspection shall have the inspection completed at an inspection station or fleet inspection station station or fleet inspection station when any of the following apply:

(a) No more than 90 days prior to renewal of annual registration<del>, except for vehicles one, 3 or 5 model years old.</del> in the 2nd year after the nonexempt vehicle's model year and every 2 years thereafter.

(b) Within 45 days of an ownership change registration issuance for vehicles  $\frac{6}{1000}$  more than 5 model years old or older at the time of ownership change, unless the vehicle passed inspection within 90 days prior to such ownership change registration,  $\frac{6}{1000}$ 

## NOTE: For example, a 1996 model year vehicle shall be considered as being more than 5 model years old commencing January 1, 2001.

**SECTION 49**. Trans 131.03(2)(c) is repealed and recreated to read:

Trans 131.03(2)(c) Within 45 days of notification of failing a remote sensing test, as required by s. 110.20(9)(g).

SECTION 50. Trans 131.03(2)(d) is created to read:

Trans 131.03(2)(d) Within 45 days of collector or hobbyist registration issuance.

SECTION 51. Trans 131.03(3)(intro.) is amended to read:

Trans 131.03(3) DOCUMENT REQUIREMENTS. (intro.) Each vehicle to be inspected presented for inspection at an inspection station shall be accompanied by <u>at</u> <u>least</u> one of the following documents which identifies the vehicle by make, model year, <u>vehicle identification number</u> <u>VIN</u>, and license <u>plate</u> number:

SECTION 52. Trans 131.03(3)(f) is repealed.

**SECTION 53**. Trans 131.03(3)(g) to (i) are renumbered 131.03(3)(f) to (h) and amended to read:

Trans 131.03(3)(f) A properly completed substitute renewal notice, form MVD 2016.

(g) A letter issued by the department notifying the vehicle owner that the vehicle must be inspected requires inspection within 45 days of an ownership change registration.

(h) A properly completed voluntary test inspection request form, obtainable from the manager at each of the emission testing inspection stations.

SECTION 54. Trans 131.03(4)(title) and (6)(a)1 are amended to read:

Trans 131.03(4)(title) SCOPE AND NATURE OF TEST. The vehicle emission test shall consist of sampling the exhaust emissions from the tailpipe or tailpipes, and measuring the concentrations of hydrocarbons, carbon monoxide, and carbon dioxide and oxides of nitrogen.

(6)(a)1. Vehicles shall be tested in an as-received condition. The Prior to testing, the engine shall be operating at the manufacturer's recommended engine idle speed without excessive smoke, at normal operating temperature, not overheating, as indicated by gauge, warning light or boiling radiator, and with all accessories off.

SECTION 55. Trans 131.03(6)(a)4 is created to read: addapted to read: addapted to the second to the

Trans 131.03(6)(a)4. Vehicles that are designed to operate with more than one type of fuel shall be tested on the fuel in use at the time of inspection.

SECTION 56. Trans 131.03(6)(b) and (c) are repealed and recreated to read:

Trans 131.03(6)(b) <u>Transient emission test procedures</u>. 1. The transient emission test shall consist of 240 seconds of mass emission measurement using a constant volume sampler while the vehicle, driven by an inspector, completes a computer-monitored driving cycle on a dynamometer with power absorption and inertia weight settings appropriate for the weight of the vehicle. The driving cycle shall include acceleration, deceleration, and idle operating modes as specified in table 2. The 240 second sequence may be ended earlier using fast pass/fail algorithms approved either by the Wisconsin department of natural resources or USEPA. Multiple fast pass/fail algorithms may be used during the test cycle to eliminate false failures. Drive gear shall

be used for automatic transmissions and first gear shall be used for manual transmissions to begin the test. Overdrive shall not be used for manual transmissions. Exhaust emissions concentrations in grams per mile shall be recorded continuously for each second of the test. The contractor shall employ appropriate measures to ensure that exhaust sample dilution does not exceed USEPA recommendations. The emission testing shall follow procedures set forth in the USEPA technical guidance.

2. The set of exhaust mass emission values achieved by the vehicle during the transient test shall determine compliance with the HC, CO, and  $NO_x$  emission limitations of s. NR 485.04.

3. Vehicles queued in the inspection lane for more than 20 minutes which fail the transient emission test cycle at or below 1.5 times the emission limitations shall receive a second chance emission test.

4. Vehicles which "stall" during the emission test shall receive both a void test and another emission test. More than 3 "stalls" shall result in a rejection from testing.

5. Vehicles for which the operator refuses to yield the driver's seat to the inspector shall be rejected from testing.

6. Vehicles registered under s. 341.14(1m), Stats., that are equipped with customized controls for the accelerator, brake or clutch, or both, which are presented for inspection, but are unable to be inspected due to the inspector's inability to use the customized controls, shall be inspected according to the 2-speed idle test procedure specified by the USEPA in the federal rule and shall receive an evaporative emission integrity (pressure) test according to sub. (8) and an emission equipment inspection according to sub. (7). Vehicles that do not meet the 2-speed idle emission standards, or the evaporative emission integrity (pressure) standards under ch. NR 485 or fail the

emission equipment inspection under sub. (7) shall fail the inspection. The inspector shall provide the operator of any vehicle failing the 2-speed idle test with any diagnostic information obtained during the inspection.

7. Vehicles unable to attain the speeds prescribed in the USEPA technical guidance during accelerations may complete the transient emission test provided the vehicle operates at maximum available power during such accelerations until the vehicle speed falls within the excursion limits.

8. During the first 24 months of transient emission testing conducted under this section, the department may, on a temporary basis, modify the transient emission test procedure in order to maintain an acceptable level of motorist convenience. The inspection procedure may be modified by using the USEPA approved fast pass/fail algorithms, or suspending inspection for  $NO_x$ .

(c) <u>Two-speed idle test procedures</u>. The 2-speed idle test shall be performed according to the procedures specified in paragraph (II) of appendix B to subpart S of the federal rule.

SECTION 57. Trans 131.03(7)(a) to (c) are amended to read:

Trans 131.03(7) EMISSION EQUIPMENT INSPECTION. (a) Nonexempt vehicles model year 1975 or newer subject to annual inspection, beginning in the 6th year after the model year and every 3rd year thereafter, or subject to change of ownership inspection, undergo an <u>An emission equipment inspection shall be performed on</u> <u>nonexempt vehicles customarily kept in a county identified in s. 110.20(5), Stats.,</u> whenever a nontransient emissions inspection is performed. This emission equipment inspection is designed to detect either tampering or disrepair on the vehicle. This

emission equipment inspection, conducted by the contractor, to shall determine the presence, if originally equipped, of all of the following:

1. A proper fuel filler restrictor; restricter.

2. A proper catalytic converter;

4. An <u>A proper</u> evaporative emission control canister;

5. A proper positive crankcase ventilation system;

6. An <u>A proper</u> exhaust gas recirculation system; and.

7. An <u>Approper</u> air injection system. In the second second

8. A proper thermostatic air cleaner.

nder <mark>9. A proper oxygen sensor.</mark> In appendie sensor and a set of the second second second based

(b) Vehicles shall be inspected for the emission equipment under par. (a) using the model year of the vehicle as indicated on the vehicles' vehicle's registration documents, except as allowed by subs. (10) (12) and (11) (13). Vehicles which meet the <u>emission</u> equipment requirements of this subsection, as applicable, shall pass the emission equipment portion of the inspection. Vehicles which fail to meet the <u>emission</u> equipment requirements of this subsection, as applicable, shall fail the emission equipment requirements of this subsection, as applicable, shall fail the emission equipment requirements of this subsection.

(c) Failing the emission equipment inspection is considered to be the same as failing the inspection. Vehicles failing the emission equipment inspection shall not be reregistered within the state of Wisconsin until such failing items have been repaired or replaced as <u>if</u> necessary as required by s. 144.42(6), Stats.

SECTION 58. Trans 131.03(7)(d) is repealed.

**SECTION 59**. Trans 131.03(8) is renumbered 131.03(10) and, as renumbered, is repealed and recreated to read:

Trans 131.03(10) REINSPECTIONS. (a) Vehicles failing initial inspection may receive a reinspection at no additional charge under the following conditions:

1. The reinspection shall take place within 30 days of the initial inspection or the owner or lessee shall present satisfactory evidence that the repairs and adjustments which were performed on the vehicle could not have been made within 30 days of the initial inspection. Additionally, the vehicle shall have been repaired or adjusted according to s. 110.20, Stats., and this chapter.

2. The vehicle shall be accompanied by its previous vehicle inspection reports. Repair information, as completed by the person performing the repairs, shall be indicated in the space provided on the reports. The completed repair section on the vehicle inspection report shall indicate all of the following:

a. The repairs performed as well as any recognized automotive emission repair technician recommended repairs not performed per owner's request.

b. The name, address and telephone number of the repair facility.

c. The name of the individual who performed the repairs.

d. If available, the appropriate identification number of the recognized repair facility and technician.

3. The vehicle is not prohibited from testing pursuant to sub. (11).

(b) A vehicle shall be reinspected after repair for any portion of the inspection that it failed on the previous test. To the extent that repair to correct a previous failure could lead to failure of another portion of the test, that portion shall also be reinspected.

## NOTE: For example, evaporative system purge repair triggers the performing of both a transient emission test and evaporative emission purge test for reinspection.

(c) If the vehicle passes the reinspection, the contractor shall retain all previouslyissued vehicle inspection reports and issue a vehicle inspection report indicating compliance. If the vehicle does not pass the reinspection, the contractor shall issue a vehicle inspection report indicating non-compliance. If the owner or lessee requests a waiver of compliance from emission limitations, the waiver investigator shall review the request and shall either approve or deny the request in accord with s. Trans 131.04. If approved, the waiver investigator shall retain all previously-issued vehicle inspection reports, except the latest on which the waiver is indicated as granted.

(d) The following limitations on the total number of inspections performed at no additional charge shall apply for each vehicle requiring compliance with this chapter:

1. A vehicle may receive no more than 2 reinspections. The reinspections shall occur within 30 days of initial inspection.

2. If the vehicle does not meet applicable emission limitations, the owner or lessee may apply for a waiver of compliance from emission test standards in accord with s. Trans 131.04.

(e) Nonexempt vehicles may be reinspected at any time according to the voluntary inspection procedure of s. Trans 131.07.

SECTION 60. Trans 131.03(8) is created to read:

Trans 131.03(8) EVAPORATIVE EMISSION INTEGRITY (PRESSURE) TESTING. (a) Nonexempt vehicles, model years 1971 and newer, are subject to evaporative emission system integrity (pressure) testing as part of the emission inspection. The

evaporative emission integrity (pressure) test shall include either the procedure specified in sub. (b) or (c), or both

(b) The evaporative emission system integrity (pressure) test sequence shall consist of the following steps:

1. The test equipment is connected to the fuel tank canister hose at the canister end. The gas gap is checked to ensure that it is properly, but not excessively, tightened.

2. The system is pressurized to  $14 \pm 0.5$  inches of water without exceeding 26 inches of water system pressure.

3. The pressure source is closed off, the evaporative system sealed and the pressure decay monitored for up to 2 minutes.

4. The gas cap is loosened after a maximum of 2 minutes and monitored for a sudden pressure drop, indicating that the fuel tank was pressurized.

5. The inspector shall ensure that all items that are disconnected in the conduct of the test procedure are properly re-connected at the conclusion of the test procedure.

(c) The evaporative emission system gas cap integrity test sequence shall consist of the following steps:

1. The gas gap is removed from the vehicle and is attached to the gas cap tester rig.

2. The gas cap is pressurized to  $28 \pm 1.0$  inches of water.

3. The pressure source is closed off, and the pressure decay is monitored during a 10 second period.

4. The inspector shall ensure that the gas cap is properly re-connected at the conclusion of the test procedure.

(d) Evaporative systems which cannot maintain a system pressure meeting the gas cap integrity standard or the evaporative emission system integrity (pressure) standard of ch. NR 485 or those which show no pressure drop when the gas cap is loosened shall fail the evaporative emission system integrity (pressure) test. Additionally, vehicles shall fail the evaporative emission system integrity (pressure) test if the evaporative emissions canister is missing or obviously damaged, if hoses are missing or obviously disconnected, or if the gas cap is missing, except as allowed by subs. (13) and (14).

(e) Vehicles that fail the evaporative emission system integrity (pressure) test shall fail the inspection.

(f) Alternative evaporative emission system integrity (pressure) test procedures and standards, or fast pass/fail algorithms may be used if approved by the USEPA.

(g) During the first 24 months of emission testing conducted under this section, the department may either phase in or temporarily omit the evaporative emission system integrity (pressure) test.

**SECTION 61**. Trans 131.03(9) is renumbered 131.03(11) and, as renumbered, is repealed and recreated to read:

Trans 131.03(11) TESTING PROHIBITED. The inspector shall refuse to perform any inspection required by this section for any vehicle if any of the following apply:

(a) The vehicle does not attain the gas measurement standard for exhaust sample validity, or where a leaking exhaust system is evidenced through audial assessment. When the vehicle does not produce a valid exhaust gas sample, a vehicle rejection report indicating an invalid test shall be printed. The motorist shall receive written information indicating the possible causes for the invalid test condition.

(b) The vehicle is carrying explosives or other hazardous material which is recognized as a safety hazard by the contractor.

(c) The vehicle is towing a trailer or another vehicle which is considered a safety hazard by the contractor.

(d) Gasoline, oil or other fluid leaks are considered a safety hazard by the contractor.

(e) The vehicle exhibits excessive idle speed, in the judgment of the contractor.

(f) The vehicle is emitting smoke in amounts greater than the limitations specified in s. NR 485.05.

(g) The vehicle has a tire on a driving wheel with less than 2/32 inch of tread, with metal protuberances, or with obviously low tire pressure, as determined by visual inspection, or has obvious cuts, snags or knots.

(h) One or more of the vehicle's tires on the drive axle are unmatched, as measured by diameter, are marked "off highway use only" or "for racing only" or are of emergency spare tire size.

(i) The vehicle exhibits load engine knocking, indicating a potential engine prob-

(j) The vehicle is subject to a manufacturer's recall for emission problems and the recall repair has not been performed. Vehicles for which emission-related recall notices have been issued shall have the recall repairs completed prior to submitting the vehicle for inspection. The owners or lessees of these vehicles shall present proof of compliance with the recall notice at time of inspection, unless the emission-related recall notice has been issued within 45 days prior to submitting the vehicle for inspection. This

paragraph applies to vehicles for which emission-related recall notices have been issued after January 1, 1995.

(k) The vehicle operator refuses to disclose the odometer reading to the inspector.

(I) The vehicle operator refuses to yield the driver's seat.

(m) Upon a reinspection, the vehicle operator fails to provide a properly completed repair form to the inspector.

(n) The vehicle exhibits any condition which is recognized as a safety hazard by the contractor.

**SECTION 62**. Trans 131.03(9) is created to read:

Trans 131.03(9) EVAPORATIVE EMISSION PURGE TESTING. (a) Nonexempt vehicles, model years 1971 and newer, are subject to evaporative emission system purge testing as part of the emission inspection.

(b) The evaporative system purge test procedure shall consist of connecting the purge flow measurement system to the purge portion of the evaporative system in series between the canister and the engine. The total purge flow occurring in the vehicle's evaporative system during the transient dynamometer emission test specified in s. Trans 131.03(6)(b) shall be measured in liters.

(c) Vehicles shall fail the purge test when the total volume of flow occurring in the vehicle's evaporative system during the transient dynamometer emission test does not meet the evaporative emission purge test standards of ch. NR 485. Additionally, vehicles shall fail the evaporative system purge test if the evaporative emissions canister is missing or obviously damaged, if hoses are missing or obviously disconnected, or if the gas cap is missing, except as allowed by subs. (13) and (14). The inspector shall

ensure that all items that are disconnected in the conduct of the test procedure are properly re-connected at the conclusion of the test procedure.

(d) Vehicles that fail the evaporative emission system purge test shall fail the inspection.

(e) Vehicles that exhibit significant purge activity during the driving cycle but do not accumulate 1 liter of purge shall receive a second chance purge test. The second chance test may consist of either the complete transient driving cycle or modified sequences of shorter duration designed to rapidly produce purge activity.

(f) Alternative evaporative emission purge test procedures and standards, or fast pass/fail algorithms may be used if approved by the USEPA.

(g) During the first 24 months of transient emission testing conducted under this section, the department may either phase in or temporarily omit the evaporative emission purge test.

SECTION 63. Trans 131.03(10) is renumbered 131.03(12) and amended to read: Trans 131.03(12) RECONSTRUCTED AND HOMEMADE VEHICLES. All Any nonexempt vehicle registered as reconstructed and or homemade vehicles under s. 341.268, Stats., shall be inspected for compliance with both the exhaust emission standards and emission equipment requirements applicable to the model year of the vehicle as indicated on the vehicles' vehicle's registration documents, unless the owner both requests that the vehicle be inspected by engine year and the owner provides a signed statement completed MV2588, exchanged engine certification form, to the waiver surveillance investigator certifying engine number, year and make. In addition, the vehicle owner shall locate the engine number on the engine for purposes of number engine year verification by the waiver investigator.

**SECTION 64**. Trans 131.03(11) is renumbered 131.03(13) and, as renumbered, 131.03(13)(b) and (c) are amended to read:

Trans 131.03(13)(b) The owner of a vehicle of model year <del>1975</del> <u>1968</u> through model year 1980 may request that the vehicle be inspected for compliance with the underhood emission equipment requirements applicable to the engine year if the owner provides a signed statement to the waiver surveillance investigator certifying engine number, year and make <u>completed MV2588</u>, exchanged engine certification form, to the waiver investigator. In addition, the vehicle owner shall locate the engine number on the engine for purposes of <del>number</del> <u>engine year</u> verification by the waiver investigator.

(c) The owner of a vehicle of model year 1981 through model year 1992 may request that the vehicle be inspected for compliance with the underhood emission equipment requirements applicable to the engine year if an engine exchange certificate is on file for that vehicle has been filed with the department no later than prior to December 31, 1992, and if the owner provides a signed statement to the waiver surveillance investigator certifying engine number, year and make completed MV2588, exchanged engine certification form, to the waiver investigator. In addition, the vehicle owner shall locate the engine number on the engine for purposes of number engine year verification by the waiver investigator.

SECTION 65. Trans 131.03(12) is renumbered 131.03(14) and amended to read: Trans 131.03(14) TRUCKS AND VANS. (a) All trucks <u>and vans</u> shall be tested inspected in accord with the exhaust emission standards, and emission equipment <u>and</u> <u>evaporative emission</u> standards for light duty trucks as applicable to the manufacturer's GVW rating <u>GVWR</u> as indicated <u>either in the vehicle's identification number or</u> on the vehicle's doorpost. If there is no manufacturer's <del>GVW rating <u>GVWR</u> available, then the</del>

vehicle shall be tested inspected according to the registered GVWR as indicated on the vehicle's entry document described in sub. (5), or as indicated on the vehicle's license plate (3).

(b) All vans shall be tested in accord with the exhaust emission standards and emission equipment requirements applicable to light duty trucks.

(c) For the purposes of this subsection, "GVW" means gross vehicle weight.

**SECTION 66**. Trans 131.03(13) is renumbered 131.03(15) and, as renumbered, is repealed and recreated to read:

Trans 131.03(15) VEHICLE INSPECTION REPORT. (a) The operator of each vehicle inspected shall receive a vehicle inspection report, MVD2470, at the conclusion of the inspection. The inspection report shall indicate:

1. Test serial number, charge and charge and

. 2. Date of the test.even a set of the second s

3. VIN.

4. Year, make and type of the vehicle.

5. Number of cylinders or engine displacement. A manufacture of the second seco

6. Transmission type.

7. Fuel type, regression of the second se

8. Present odometer reading in thousands of miles.

9. Carbon monoxide, hydrocarbon, carbon dioxide and nitrogen oxides emission scores and applicable emission limitations for the vehicle.

10. Evaporative emission integrity (pressure) test results expressed as a pass or fail.

11. Evaporative emission purge test results expressed as a pass or fail.

12. The results of any OBD or OBD II test.

13. The final result.

14. Instructions indicating that the inspection report, together with the vehicle, shall be returned to any inspection station for reinspection to occur.

15. Space to indicate who repaired the vehicle, such as owner, repair facility or other private party.

16. Space to indicate the name, address and telephone number of the facility where repairs occurred.

17. Space to indicate the appropriate identification number of the recognized repair facility and technician, if available.

18. Space to indicate the cost of parts and labor for emission-related repair.

19. Space to indicate the emission-related repairs performed.

20. Space to indicate the emission-related repairs recommended, but not performed per owner's request.

21. Advisory diagnostic information for failing vehicles.

22. Vehicle license number, if available. A second address of the endowed of the second secon

23. Inspection station and inspector numbers.

24. Emission test start time and the time of final emissions result determination.

25. GVWR.

26. Inspection number, such as initial, first reinspection, or subsequent reinspection number.

27. Result of any applicable emission equipment inspection.

28. A statement indicating the availability of emission warranty coverage as provided in section 207 of the Clean Air Act.

29. A statement certifying that the test is performed in accordance with applicable federal regulations.

30. The cause for any aborted or rejected inspection.

31. Other information as the department may reasonably require to enable it to determine compliance with this chapter, state laws, federal laws and regulations.

(b) Each operator of a vehicle failing any portion of the inspection shall receive an inspection report supplement containing repair, reinspection and waiver application instructions, as well as information on the possible causes of failure found during the inspection.

(c) Each operator of a vehicle failing any portion of the initial inspection shall receive a list of registered automotive emission repair facilities by emission inspection station area which includes information required under s. Trans 131.15. This listing may include other consumer information useful in obtaining vehicle emission repair service.

SECTION 67. Trans 131.04(1)(intro.), (a) and (b) are amended to read:

<u>Trans 131.04 WAIVER OF COMPLIANCE</u>. (1) ELIGIBILITY. (intro.) A vehicle, including a fleet vehicle, which fails to pass the designated emission test inspection standards upon an initial inspection, and which after repair or adjustment, or both, again fails to pass the emission test inspection, shall be eligible for a waiver of compliance for a period of up to one year valid until the next required inspection of the vehicle as determined by the waiver surveillance investigator provided the following conditions are met:

(a) For all 1981 and newer model year vehicles which were less than 5 years of age and were driven not more than 50,000 miles which have not exceeded the terms of the manufacturer's emission performance or defect warranty coverage at the time of the

annual <u>scheduled</u> emission inspection, the operator <u>must shall</u> either present a written statement from a vehicle dealership or other <u>manufacturer's</u> designated agent declaring that the vehicle is not eligible for emission control system warranty work, or present a dated invoice indicating that <u>the vehicle has received</u> eligible emission control system warranty work <u>has been performed</u>.

(b) The <u>emission related</u> repairs and adjustments made to the vehicle's emission control system, including costs for parts and labor, have been performed on the vehicle within 90 days prior to renewal of annual registration or within 90 days of vehicle owner-ship change registration and such repairs and adjustments are indicated in the space provided on the vehicle inspection report by the person performing the repairs. If the labor for vehicle repair is performed without charge or cost, only the cost of replacement parts shall be indicated. <u>and an An</u> itemized receipt indicating the parts <u>purchased</u>, <u>labor</u> cost, and date of purchase shall be provided to the waiver investigator.

**SECTION 68**. Trans 131.04(1)(c) is repealed and recreated to read:

Trans 131.04(1)(c)1. For all 1981 and newer model year vehicles which have exceeded the terms of the manufacturer's emission performance or defect warranty coverage at the time of the scheduled emission inspection, the owner shall have emission related repairs performed on the vehicle at a recognized repair facility as defined in s. Trans 131.02(39) or by a recognized automotive emission repair technician as defined in s. Trans 131.02(38). The operator shall present a vehicle inspection report with the repair information section completed according to s. Trans 131.03(13). The statement shall contain the actual cost of emission related repairs performed on the vehicle including itemized costs for parts and labor. If the labor for vehicle repair is performed without charge or cost, only the cost of replacement parts shall be indicated.

An itemized receipt indicating the parts, labor cost and date of repair shall be provided to the waiver investigator.

2. Through the period ending November 30, 1997, proof of recognized automotive emission repair technician training shall consist of either National Institute for Automotive Excellence (ASE) certification in level 6, 8, L1, or valid documentation indicating successful completion of a Wisconsin emission technician training (WISETECH) course under s. Trans 131.16, or an equivalent program as determined by the department. After November 30, 1997, proof of this training shall consist of either ASE certification in level L1, or valid documentation indicating successful completion of a WISETECH course under s. Trans 131.16 or an equivalent program as determined by the department.

SECTION 69. Trans 131.04(1)(d) is created to read:

Trans 131.04(1)(d) The vehicle shall pass a waiver emission equipment inspection as described in s. Trans 131.05.

SECTION 70. Trans 131.04(2)(intro.), (a) and (b) are amended to read:

Trans 131.04(2) CRITERIA. (intro.) A vehicle which meets the eligibility requirements of sub. (1) shall be granted may receive a waiver of compliance for a period of up to one year from emission test standards valid until the next required inspection of the vehicle if it meets any one of the following conditions are met:

(a) The <u>owner presents satisfactory evidence to the department that the</u> actual cost of <u>emission related</u> repairs performed on the vehicle as reported in accord with sub.
(1)(b) <u>or (c)</u> exceeds the repair cost limit as provided in s. 110.20(13), Stats. Costs covered by any warranty and costs incurred to repair or replace any missing or tampered

emission control device that caused the vehicle to fail an emission equipment inspection are to be excluded do not count toward the waiver repair cost limit.

(b) Technical difficulties in the manufacturer's design or construction of the vehicle <u>or restrictions imposed by the department on the operation of vehicles registered under</u> <u>s. 341.14(1m), Stats.</u>, prevent emission testing of the vehicle.

**SECTION 71**. Trans 131.04(2)(c) is created to read:

Trans 131.04(2)(c) After repairs are performed by a recognized automotive emission technician, a complete, documented, physical and functional diagnosis and inspection performed at one of the technical assistance centers by the master automotive technician shows that no additional emission related repairs could produce a passing result.

**SECTION 72**. Trans 131.05(1) is amended to read:

Trans 131.05 WAIVER EMISSION EQUIPMENT INSPECTION. (1) PURPOSE. When a vehicle owner or lessee requests a waiver of compliance from emission test standards is requested, the emission equipment shall be inspected on each vehicle by the waiver surveillance investigator. This waiver emission equipment compliance inspection is designed to detect either tampering or disrepair on the vehicle. The waiver emission equipment compliance inspection does not include removal or disassembly of parts except for removal of the fuel cap. The waiver surveillance investigator shall look for determine both the presence and proper connection, if originally equipped, of the following:

(a) Presence of a <u>A</u> properly sized fuel filler restrictor.

(b) Presence of a <u>A</u> properly connected catalytic converter on vehicles originally equipped.

(c) Presence of a <u>A</u> proper fuel cap.

(d) Presence of a <u>A</u> proper evaporative emission control canister system.

(e) Presence of a <u>A</u> properly connected positive crankcase ventilation system.

(f) Presence of a <u>A</u> proper exhaust gas recirculation system.

(g) Presence of a <u>A</u> proper air pump <u>injection</u> system.

(h) Presence of a <u>A</u> properly installed thermostatic air cleaner system.

**SECTION 73**. Trans 131.05(1)(i) and (j) are created to read:

Trans 131.05(1)(i) A properly connected oxygen sensor.

(j) An operational and non-active "check engine" or other emission service indicator light.

SECTION 74. Trans 131.05(2) and (3) are amended to read:

Trans 131.05(2) EXCEPTION. The owner of a vehicle of model year 1968 through model year 1974 with an exchanged engine may request that the vehicle be inspected for compliance with the emission equipment requirements applicable to the engine year, if the owner provides a signed statement to the waiver surveillance investigator certifying engine number, year and make. In addition, the vehicle owner shall locate the engine number on the engine for purposes of number verification by the waiver investigator the vehicle meets conditions in s. Trans 131.03(12) or (13).

(3) CONSEQUENCES. Vehicles failing the waiver emission equipment compliance inspection shall not be granted receive a waiver of compliance or acceptance for voluntary testing under s. Trans 131.07 until the failing emission equipment items are either repaired or replaced, except as allowed by s. Trans 131.03(12) or (13).

**SECTION 75**. Trans 131.06(1)(intro.) is amended to read:

<u>**Trans 131.06 INSPECTION COMPLIANCE.</u>** (1)(intro.) REGISTRATION ELIGIBILITY. To be eligible for license plate renewal <del>or</del>, ownership change registration, <u>collector registration</u>, or <u>hobbyist registration</u>, a vehicle <del>must</del> <u>shall comply with one of the following</u>:</u>

SECTION 76. Trans 131.06(1)(a) is repealed.

**SECTION 77**. Trans 131.06(1)(b) is renumbered 131.06(1)(a) and amended to read:

Trans 131.06(1)(a) Either pass the emission test <u>inspection</u> or receive a waiver of compliance from emission test standards <u>limitations</u>.

**SECTION 78**. Trans 131.06(1)(b) is created to read:

Trans 131.06(1)(b) Receive a temporary exemption according to s. Trans 131.08.

SECTION 79. Trans 131.06(2) is amended to read:

Trans 131.06(2) EVIDENCE. Evidence of inspection compliance shall consist of <u>one of the following</u>:

(a) A vehicle inspection report indicating either "passed" or on which the waiver surveillance investigator has indicated "waived"; or "waived."

(b) An entry on the department's data records indicating the vehicle license number, vehicle identification number <u>VIN</u>, test serial number, and the notation "passed" or "waived."

SECTION 80. Trans 131.07 and 131.08(title) and (1) to (3) are amended to read

Trans 131.07 VOLUNTARY INSPECTIONS. (1) CRITERIA. The contractor shall inspect any nonexempt vehicle which is presented for inspection at an inspection station provided:
(a) The vehicle is accompanied by <u>operator provides</u> a properly completed request for voluntary emission inspection form, obtainable from the manager at each of the emission testing inspection stations.

(b) The vehicle is not prohibited from testing <del>pursuant to</del> <u>under</u> s. Trans <del>131.03(9)</del> <u>131.03(11)</u>.

(c) The driver operator presents payment to the contractor of a monetary fee as determined by contract.

(2) EFFECT. The voluntary presentation of a vehicle for inspection in accordance with sub. (1) shall not impose any mandatory requirement upon a vehicle owner to comply with requirements of this chapter with the exception of except for the repair or replacement of any failing emission equipment inspection items as required under s. Trans 131.03(7)(c).

Trans 131.08(title) LETTER OF TEMPORARY EXEMPTION FROM EMISSION INSPECTION REQUIREMENTS. (1) ELIGIBILITY. When a vehicle subject to the emission inspection requirements of this chapter will not be available is unavailable for an inspection due to either the vehicle's absence or inoperative condition, or the owner's or lessee's absence or incapacity, during the 90 day period prior to the license expiration date, or within 45 days of an ownership change registration or registration as a collector or hobbyist vehicle, and inspection is not available under s. Trans 131.10, the owner or lessee may request of the department a letter of temporary exemption from the requirements of this chapter.

(2) APPLICATION. The department shall provide an application form, MVD2472, on which the vehicle owner or lessee shall <u>state their name, permanent address</u>, <u>temporary address</u>, <u>if used</u>, <u>and day-time telephone number</u>. The vehicle owner or

<u>lessee shall</u> identify the vehicle involved, provide the reason for requesting a letter of temporary exemption, certify that the vehicle will not be available is unavailable for emission inspection during the 90 day period prior to the license expiration date, and state the date when the vehicle will again be operated within a Wisconsin county subject to the emission inspection requirements of this chapter.

(3) ISSUANCE. Upon approval of the application by the department, a letter of temporary exemption shall be issued to the vehicle owner or lessee. Such approval <u>letter</u> shall allow the owner or lessee to proceed with vehicle registration renewal. As a condition of granting the letter of temporary exemption, the department may <u>shall</u> require that the vehicle be inspected within 30 days of <del>when</del> <u>the date</u> the applicant indicates that the vehicle will again be operated within a Wisconsin county subject to the emission inspection requirements of this chapter.

**SECTION 81**. Trans 131.09 and 131.10 are renumbered 131.11 and 131.12 and, as renumbered, are repealed and recreated to read:

<u>**Trans 131.11 AUDITS OF INSPECTION FACILITIES</u>** (1) GENERAL. Representatives of the department or its designated agent shall conduct audits of testing equipment, procedures, personnel and records as follows:</u>

(a) All contractor inspection functions, including those occurring at the inspection stations, technical assistance centers and vehicles used to conduct remote sensing, shall be audited on an unscheduled basis, at a minimum, according to the frequency established in the federal rule.

(b) Scheduled audits may be performed at any time.

(c) Either the department or its agent may conduct covert audits in order to satisfy the requirements of the federal rule.

(d) Audits shall be performed according to written procedures either established or approved by the department.

(2) EQUIPMENT AUDITS. (a) Equipment used to perform transient emission inspections tests shall be audited to determine the proper:

1. Constant volume sampler critical flow and calibration.

2. Optimization of the flame ionization detector fuel or air ratio using methane.

3. Dynamometer coast down, roll distance and inertia weight.

4. Ability to detect background pollutant concentrations.

5. Accuracy, response time and overall operation of the evaporative purge and integrity (pressure) analysis systems.

(b) Equipment used to perform 2-speed idle tests shall be audited to determine conformance with the quality control requirements of paragraph (I) of appendix A of the federal rule.

(c) Equipment used to perform remote sensing tests shall be audited according to written procedures either established or approved by the department.

(d) If equipment fails to operate within contractually specified tolerance during an overt or covert audit, the department's quality assurance auditor shall immediately re-audit the failing equipment. If the equipment fails again, the department's quality assurance auditor shall require the station manager to close the affected lane or emission test operation until such time as the equipment is properly repaired and documentation of corrective actions is available for review by the department.

(3) PENALTIES. (a) Equipment failure shall result in the imposition of a penalty. Penalties are established in the penalty schedule section of the contract and may require

that the contractor either incur liquidated damages or suspend or revoke inspector licenses, or both.

(b) Contractor employes, removed from inspection duties through either suspension or revocation of their inspection license as a result of a department audit, may appeal the contractor's suspension or revocation to the department's hearing officer. In the case of immediate suspension due to a department audit, a hearing shall occur within 14 calendar days of receipt of a written request by the employe. Failure to hold a hearing within 14 days when requested shall cause the suspension or revocation to lapse.

## <u>Trans 131.12 EQUIPMENT SPECIFICATIONS AND QUALITY CONTROL</u>. (1) GENERAL. All equipment utilized for emission inspections shall be calibrated and maintained according to the standards established in the federal rule.

(2) SPECIFICATIONS. (a) The equipment used for transient vehicle emission testing shall meet the requirements of the USEPA technical guidance § 85.2226.

(b) The equipment used for 2-speed idle testing shall meet the requirements of appendix D to subpart S of the federal rule.

(c) The equipment used for vehicle evaporative emission testing shall meet the requirements of the USEPA technical guidance § 85.2227.

(3) QUALITY CONTROL. All equipment used in the emission testing process shall be calibrated and maintained according to the procedures specified in the federal rule and USEPA technical guidance §§ 85.2234 and 85.2235.

SECTION 82. Trans 131.09 and 131.10 are created to read:

**Trans 131.09 TEMPORARY OPERATING PERMITS.** (1) GENERAL. The department or its designated representative may issue a temporary operating permit,

valid for not more than 30 days, to allow time for inspection and necessary repairs and adjustments of any vehicle subject to inspection under s. 110.20(6), Stats. No temporary operating permit shall be issued for a vehicle with registration expired for more than 90 days.

(2) APPLICATION. The department shall provide an application form, MV2505, on which the vehicle owner or lessee shall state their name, permanent address, and day-time telephone number. The vehicle owner or lessee shall identify the vehicle involved, and provide the reason for requesting a temporary operating permit.

(3) ISSUANCE. Upon receipt of the fee under s. 341.36(1), Stats., and approval of the application, the department shall issue a temporary license plate to the vehicle owner or lessee. Such plate shall contain the date of expiration. The owner or lessee shall affix the temporary license plate to the vehicle in accord with the requirements of s. 341.04(5), Stats.

(4) TERM. A temporary operating permit shall be valid for 30 days after issuance. The department may approve the application for a second or third temporary operating permit provided that application is made within 90 days of the vehicle's registration expiration date.

<u>Trans 131.10 RECIPROCITY</u>. (1) COMPLIANCE. When a vehicle subject to the emission inspection requirements of this chapter is unavailable for an inspection due to the vehicle's absence from the Wisconsin inspection area during the 90 day period prior to the license expiration date, or within 45 days of an ownership change registration or registration as a collector or hobbyist vehicle, but is operating in another nonattainment area requiring vehicle emission inspections, the owner or lessee shall submit an official

vehicle inspection report, or the equivalent document, from that area indicating that the vehicle has passed the emission inspection in that area.

(2) REGISTRATION ELIGIBILITY. The submission of satisfactory evidence of emission inspection compliance from another nonattainment area shall allow the owner or lessee to proceed with vehicle registration renewal or to satisfy ownership change, collector, or hobbyist vehicle registration inspection requirements.

(3) EXCEPTION. When a vehicle operates in a nonattainment area which does not allow the inspection of vehicles from other nonattainment areas, the owner or lessee may apply for a temporary exemption under s. Trans 131.08.

SECTION 83. Trans 131.11 and 131.12 are repealed.

SECTION 84. Trans 131.13 and 131.14 are repealed and recreated to read:

<u>Trans 131.13 LICENSING OF INSPECTORS</u>. (1) TRAINING. (a) All contractor employes who perform any official inspection functions shall have a license issued by the contractor. No person may either receive a license or have a license renewed as an inspector unless the person demonstrates to the department, by training and examination, proficiency in all of the following:

1. Air pollution causes and effects.

2. Purpose, function and goals of the inspection program.

3. State inspection regulations.

4. Test procedures and rationale for their design.

5. Emission control devices, configuration and inspection.

6. Test equipment operation, calibration and maintenance.

7. Quality control procedures.

8. Public relations.

9. Safety and health issues related to the inspection process.

(b) Trainees shall both pass, by a minimum of 80% correct responses, a written test and demonstrate the ability, without the assistance of another person, to conduct a proper inspection as a condition of successfully completing a licensing examination administered by a party other than the contractor.

(c) An applicant for a vehicle emissions inspection license who fails an examination for inspector shall successfully complete the applicable vehicle emissions inspector training program prior to reexamination for license.

(2) LICENSING. Upon completion of training and all other licensing requirements, the contractor shall issue a photo identification badge containing the inspector's photograph, name, unique, non-transferable inspector number and the expiration date of the inspector's license. Training and licensing records for each employe so licensed shall be maintained both at the contractor's headquarters and at the employe's primary inspection station.

(3) RENEWAL. Licenses issued to vehicle emissions inspectors shall be valid for2 years. Inspectors shall complete both refresher training and testing prior to licenserenewal.

(4) AUDITING. Representatives of the department or its designated agent shall conduct both overt and covert, scheduled and unscheduled audits.

(5) PENALTIES. (a) Failure of either the contractor or any of its employes to pass any portion of an overt or covert audit shall result in the imposition of a penalty. These penalties, established in the penalty schedule section of the contract, may require that the contractor either suspend or revoke inspector licenses or incur liquidated damages, or both.

(b) Contractor employes who are removed from inspection duties through either suspension or revocation of their inspection license as a result of a department audit may appeal the contractor's suspension or revocation to the department's hearing officer. In the case of immediate suspension due to a department audit, a hearing shall occur within 14 calendar days of the department's receipt of a written request by the employe. Failure of the department to hold a hearing within 14 days when requested shall cause the suspension to lapse.

(6) CHALLENGE MECHANISM. (a) A motorist who alleges that either an incorrect inspection occurred or that fraud or abuse influenced the results of the inspection may contest the results of that inspection by notifying the department immediately after the inspection, or as soon as possible after discovering the problem.

(b) The department's quality assurance representative shall investigate the complaint. If the results of that investigation indicate that the inspection may have occurred incorrectly or that fraud or abuse may have influenced the results of the inspection, the department's quality assurance representative shall arrange for a reinspection at the technical assistance center at a time convenient to all parties.

(c) Results of the technical assistance center inspection shall supersede the results of the contested station lane inspection.

<u>Trans 131.14 REMOTE SENSING</u>. (1) GENERAL. The contractor shall use remote sensing to measure the in-use vehicle emissions in any county identified under s. 110.20(5), Stats. Any nonexempt vehicle that has passed its last emission reinspection under s. Trans 131.03(11), and fails the remote sensing test by exceeding the remote emission standards under sub. (4), shall have an enhanced emission inspection under s. 110.20(9)(g), Stats. Penalty for failure to comply with this section

consists of suspension of vehicle registration as set forth in s. 341.63(1)(e), Stats. To reinstate vehicle registration, a fee prescribed by s. 341.36(1), Stats., is required.

(2) WHEN INSPECTION REQUIRED. (a) The owner or lessee of a nonexempt vehicle that fails the remote sensing test shall have an enhanced emission inspection within 45 days of notification of a remote sensing test failure.

(b) Vehicles that fail the remote sensing test, but are scheduled to receive an emission inspection required under s. 110.20(6), Stats., within 90 days of remote sensing test failure, or for which temporary exemptions will expire within 30 days of remote sensing test failure, shall receive notification of the remote sensing test failure but are exempt from the inspection requirements of s. 110.20 (9)(g), Stats.

(c) Vehicles that have a valid emission inspection waiver at the time of remote sensing test failure are exempt from the inspection requirements of s. 110.20(9)(g), Stats.

(3) SCOPE AND NATURE OF TEST. The test shall consist of using an open-path infrared sensor to measure the concentration of one or more of the following pollutants present in the vehicle's exhaust:

(a) Hydrocarbons.

(b) Carbon monoxide.

(c) Carbon dioxide.

(d) Oxides of nitrogen.

(4) EMISSION STANDARDS. Vehicles that exceed the standards shown in table 1 shall fail the remote sensing test:

		REMOTE SENSING STANDARD									
MODEL YEAR	GVWR	HC(ppm)	CO(%)	NO <sub>x</sub> (%)							
1992 and newer	All	400	2.0	Reserved							
1988 - 1991	All	450	3.0	Reserved							
1981 - 1987	Ali	650	5.0	Reserved							
1975 - 1980	All	1300	7.0	Reserved							
1968 - 1974	All	1700	8.0	Reserved							

TABLE 1

NOTE: Changes to these standards may occur either if the USEPA establishes remote sensing standards or if the department's program evaluation indicates that modifications should occur to identify more accurately gross polluting vehicles.

(5) VEHICLE INSPECTION NOTICE. The contractor shall mail a vehicle inspection notice to the owner or lessee of vehicles that fail a remote sensing test conducted under this section. The vehicle inspection notice shall be mailed to the owner's or lessee's address indicated on the department's registration database. The vehicle inspection notice shall include all of the following:

(a) Test serial number.

(b) Date, location and time of the test.

(c) License plate number.

(d) VIN.

(e) Emission test results and standards for the vehicle.

(f) Instructions indicating that the report, together with the vehicle, shall be brought to any inspection station to receive an inspection as required under s. Trans 131.14(2), if required.

(g) Information describing the remote sensing test.

(h) Explanation of both the legal requirements and registration penalties for failure to comply with an inspection notice.

(i) Other information that the department may decide to include to improve understanding of the remote sensing test.

(6) REMOTE SENSING EQUIPMENT SPECIFICATIONS AND MAINTENANCE.(a) All equipment utilized for remote sensing emission measurement shall be calibrated and maintained according to the manufacturer's specifications or as superseded by contract.

(b) Remote sensing equipment, personnel and procedures shall be subject to periodic audits by the department under s. Trans 131.11.

SECTION 85. Trans 131.15 is renumbered 131.17 and amended to read:

<u>Trans 131.17 NOTIFICATION OF INSPECTION REQUIREMENTS</u>. As part of the notification process for vehicle registration renewal under s. 341.08(4m), Stats., or for inspection required due to ownership change registration under s. 110.20(6)(a)2, Stats., <u>or for inspection required due to registration as a collector or hobbyist vehicle</u>, the department shall include notification to vehicle owners whose vehicles <u>either</u> are or may be subject to the inspection requirements of this chapter.

SECTION 86. Trans 131.15 and 131.16 are created to read: Advantage statement

<u>**Trans 131.15 PERFORMANCE MONITORING OF REPAIR FACILITIES</u></u>. (1) GENERAL. The department, through its emission testing contractor, shall both collect emission repair data and inform the public and automotive repair industry regarding repair efficacy.</u>** 

(2) DATA COLLECTION. Whenever a nonexempt vehicle receives a reinspection, the contractor shall collect the following emission repair information from the vehicle inspection report as required by s. Trans 131.03(11):

(a) The repairs performed.

(b) Any technician recommended repairs not performed, per owner's request.

(c) The name and address of the facility that performed the repairs.

(d) The name of the person who performed the repairs.

(e) The identification number, if available, of the recognized repair facility or recognized automotive emission repair technician, or both.

(3) REPORTING. (a) The contractor shall compile a report which includes the emission repair facility name, address, telephone number, number of vehicles submitted for reinspection, and percentages indicating the number of vehicles that have passed, failed, and received waivers after repair.

(b) Beginning in the third month of the vehicle emission inspection program, the contractor shall produce a summary report of the performance of local repair facilities that have repaired vehicles for reinspection. The report shall be provided to the motorist at the time of initial vehicle emission inspection failure. The report shall be updated on a quarterly basis.

(c) Repair facilities shall receive summary reports at least quarterly. Reports to the repair facility shall include all information made available to the public and may include reports on individual technicians if so requested by the employing repair facility.

(d) The department may include additional statistics that convey information on the relative ability of repair facilities in providing effective emission repair.

## Trans 131.16 AUTOMOTIVE EMISSION REPAIR TECHNICIAN TRAINING.

(1) GENERAL. The department, in cooperation with community and technical colleges located in counties certified under s. 110.20(5)(a), Stats., shall establish guidelines for assessing programs for automotive emission repair technician education and training available at both public and private facilities. The department shall designate programs that meet these guidelines as Wisconsin emission technician training, or WISETECH, programs. Any public or private facility offering automotive emission repair technician training attraining may request WISETECH designation from the department.

(2) CRITERIA. To meet WISETECH standards, training courses shall, at a minimum, include instruction in:

(a) Diagnosis and repair of malfunctions in computer controlled close-loop vehicles.

(b) Application of emission control theory and diagnostic data to the diagnosis and repair of vehicles failing the transient emission test and the evaporative system functional checks.

(c) Utilization of diagnostic information on systematic or repeated failures observed in both the transient emission test and the evaporative system functional checks.

(d) General training on the various subsystems related to engine emission control.

(3) EQUIPMENT. Both private and public facilities offering WISETECH designated automotive emission repair training courses shall have available, and maintain in good working condition, tools and equipment necessary for the proper diagnosis, adjustment and repair of all nonexempt vehicles. All equipment utilized in the training courses shall be calibrated and maintained according to the manufacturer's specifications.

(4) PROGRAM RECOGNITION. Programs shall be designated as meeting WISETECH standards if in compliance with one of the following:

(a) The department approves the course curricula, equipment and facility.

(b) The training facility presents documentation that the course meets National Automotive Technician Education Foundation, Inc., standards.

(5) TECHNICIAN RECOGNITION. (a) A person successfully completing all phases of a WISETECH training program shall achieve the designation of "recognized automotive emission repair technician" as defined in s. Trans 131.02(38).

(b) A person who satisfactorily completes a WISETECH approved automotive emission training course shall receive from the organization providing the training, an identification card which states the technician's name, the name and location of the course, the date of completion and a WISETECH identification number.

(6) REPORTING. Both private and public facilities offering WISETECH automotive emission repair training courses shall supply the department with the names of the persons registered in their course, the percentage successfully passing the course and the names and WISETECH identification numbers of those passing.

(7) SUPPLEMENTAL TRAINING. The department may authorize periodic supplemental training as a requirement for a person to maintain the status of WISETECH automotive emission repair technician.

(8) QUALITY ASSURANCE. (a) WISETECH training programs are subject to periodic monitoring by the department or its representative to assure that courses continue to meet WISETECH standards.

(b) The department may use performance monitoring as described in s. Trans 131.15 to evaluate both the emission repair success of the technicians and the effectiveness of WISETECH designated courses.

## (END OF RULE TEXT)

<u>Effective Date</u>. This rule shall take effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22(2), Stats.

Signed at Madison, Wisconsin, this <u>6</u> day of March, 1996.

CHAR

CHARLES H. THOMPSON Secretary Wisconsin Department of Transportation

TABLE 2												
Lime sec.	Speed	lime sec	Speed	lime	Speed	Lime sec.	Speed	lime sec.	Spee mph			
0*	0	48	25 7	96	0	144	24 6	192	54.6			
1	Ö	49	26.1	97	õ	145	24 6	193	54.8			
2	0 -	50	26.7	98	3.3	146	25.1	194	55.1			
3	0	51	27.5	99	6.6	147	25 6	195	55 5			
3 4 5 6 7 8 9 10 11 12 14 16 7 8 9 10 11 12 14 16 7 8 9 0 11 22 22 24 5 6 7 8 9 0 11 22 22 24 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 10 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 34 5 6 7 8 9 0 11 12 22 34 5 6 7 7 8 9 0 30 1 32 33 4 5 6 6 7 8 9 0 11 22 22 24 5 6 7 7 8 9 0 30 1 32 33 4 5 6 6 7 8 9 9 0 1 22 3 34 5 6 6 7 8 9 0 1 22 3 34 5 6 6 7 8 9 0 1 22 3 34 5 6 6 7 8 9 0 1 22 3 34 5 6 6 7 7 8 9 0 1 22 3 34 5 6 6 7 7 8 9 0 1 2 2 3 3 4 5 6 6 7 7 8 9 0 1 2 2 3 3 4 5 6 6 7 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 4 5 6 6 7 8 9 0 1 2 3 3 3 4 5 6 7 8 9 9 0 1 4 5 7 8 9 0 1 2 3 3 4 5 6 7 8 9 0 1 4 5 7 8 9 0 1 2 3 3 3 3 5 7 8 9 0 1 4 5 7 8 9 9 0 1 4 5 7 8 9 0 1 2 3 3 3 5 7 8 9 9 0 1 4 5 7 8 9 1 3 7 8 9 9 4 5 7 8 9 9 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 3 5 9 114.3 9 17 3 18 7 21 7 22 5 21 5 20 9 21 9 22 5 20 9 20 8 17 14 9 21 7 22 5 20 9 20 8 17 14 9 21 7 22 5 20 9 20 8 17 14 9 21 7 22 5 21 5 20 9 20 8 17 14 9 21 7 22 5 20 9 20 8 17 14 9 21 7 22 5 20 9 20 8 17 15 5 20 9 20 8 17 15 5 20 9 20 8 17 15 5 20 9 20 9 20 9 20 9 20 9 20 9 20 9 20 9	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 67 71 72 73 74 75 76 77 78 80 81 82 83 84 85 86 88 89 91 92 93 94 95	27.5 289.3 299.8 300.4 300.7 300.5 4 300.7 300.5 4 300.4 300.7 300.5 4 300.4 300.7 300.5 300.4 300.7 9.8 300.7 9.8 300.7 299.8 300.7 299.8 300.7 300.4 300.7 300.5 4 300.4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 9 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 4 300.7 300.5 300.7 300.5 300.7 300.5 300.7 300.5 300.7 300.5 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 300.7 30000000000	39   100   101   102   103   104   105   106   107   108   109   110   111   112   113   114   115   116   117   118   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142	9.9 9.9 16.5 19.8 22.2 24.3 26.4 25.7 24.7 25.4 26.5 24.7 25.4 27.2 26.4 27.2 26.4 27.2 26.4 27.2 26.4 27.2 26.4 27.2 26.4 27.2 26.4 27.2 26.5 24.7 17.7 17.7 17.7 17.7 21.5 20.4 21.5 20.4 21.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5 22	147 148 150 150 152 153 155 155 155 155 155 160 161 163 165 166 166 168 167 177 177 177 177 177 178 181 182 184 185 188 188 188 188 189 191	$\begin{array}{c} 25 \ 7 \\ 25 \ 4 \\ 24 \ 9 \\ 25 \ 4 \\ 26 \\ 25 \ 7 \\ 26 \\ 27 \ 3 \\ 26 \\ 27 \ 3 \\ 30 \ 5 \\ 26 \\ 7 \\ 30 \ 5 \\ 27 \\ 30 \ 5 \\ 26 \\ 7 \\ 30 \ 5 \\ 26 \\ 7 \\ 30 \ 5 \\ 26 \\ 7 \\ 30 \ 5 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ $	196 197 109 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 228 229 220 221 222 223 224 225 226 227 228 229 230 231 232 234 235 236 237 239	5357 55636 55677 556556 556556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255566 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255556 55255566 55255556 55255566 55255556 55255556 55255566 55255566 55255556 55255566 55255566 552555566 552555566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 5525566 5525566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 55255566 5525566 55255566 5525566 5525566 5525566 5525566 5525566 5525566 55255666 55255666 55255666 552556666 55255666666666666666666666666666666666			