

Chapter Trans 131

MOTOR VEHICLE INSPECTION AND MAINTENANCE
PROGRAM (MVIP)

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Trans 131.01 Purpose and scope. (1) **STATUTORY AUTHORITY.** As authorized by ss. 110.06, 110.20 (9), 110.21, and 227.014, Stats., the purpose of this chapter is to establish the department's administrative interpretation of ss. 110.20 and 110.21, Stats., relating to a motor vehicle emissions inspection program.

(2) **APPLICABILITY.** This chapter applies to all nonexempt vehicles customarily kept in those counties certified by the department of natural resources under s. 110.20 (5) (a), Stats. It also applies to all nonexempt vehicles customarily kept in any county whose board of supervisors has adopted a resolution under s. 110.20 (5) (b), Stats., requesting the department establish an inspection and maintenance program, and applies to any nonexempt vehicle which a person presents for a voluntary inspection at an inspection station pursuant to s. 110.20 (7) and s. Trans 131.07. For purposes of determining where a vehicle is customarily kept, the county of domicile as indicated by the vehicle owner and contained in the department's title data base shall be used. In the absence of an indicated county of domicile, the owner or lessee's post office address shall be used to determine county of domicile.

(3) **EFFECTIVE DATE.** The emission testing provisions of this chapter will become effective with vehicles whose registration expires beginning April 1984.

Note: Forms used in this chapter are MVD 2470, vehicle inspection report; MVD 2471, vehicle inspection report supplement; MVD 2472, letter of temporary exemption from emission test requirements; MVD 2473, fleet station inspection permit; MVD 2474, quality control of emission inspection stations; and MVD 2475, public education brochure.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

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.

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(1) "Calibrating gas" or "primary gas" means a gas of known concentration which is used to establish the response curve of an analyzer.

(2) "Contractor" means a person, as defined in sub. (32), with whom the department has a contract that provides for the operation of one or more inspection stations.

(3) "Dealer" has the same meaning as in s. 340.01 (11), Stats.

(4) "Department" means the Wisconsin department of transportation.

(5) "Drive wheels" means the pair of wheels that propel a vehicle.

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

(7) "Emission standards", means the maximum vehicle emission concentrations in s. NR 154.17 (3), Wis. Adm. Code.

Note: Chapter NR 154 may be obtained from the Wisconsin Department of Natural Resources, Bureau of Air Management, P.O. Box 7921, Madison, WI 53707.

(8) "Emission test" means a combination of the loaded mode, or fast idle, and idle mode tests.

(9) "Exempt vehicles" means all vehicles other than nonexempt vehicles.

(10) "Exhaust emission" or "exhaust gas" means the combination of substances emitted into the atmosphere from the tailpipe or tailpipes of a motor vehicle.

(11) "Fast idle test" means an exhaust emission test conducted at an unmeasured 2500 RPM for the purposes of preconditioning the vehicle and providing diagnostic information to the vehicle driver.

(12) "Fleet inspection station" means an inspection station operated by a fleet owner.

(13) "Fleet owner" means any owner or lessee of at least 15 motor vehicles subject to the inspection who has been issued a fleet station permit under this chapter.

(14) "Fleet vehicle" means a nonexempt motor vehicle owned or leased by a fleet owner.

(15) "Four wheel drive vehicle" means any constant four-wheel drive vehicle which cannot be converted to two-wheel drive except by removing one of the vehicle's drive shafts.

(16) "Fuel" means any material that is burned within a vehicle that is the energy source for propelling the vehicle.

(17) "Gasohol" means a mixture of gasoline and not more than 20% alcohol.

(18) "Government vehicle" means a motor vehicle registered under s. 341.26 (2m), Stats., or a vehicle owned or leased by the United States.

(19) "Gross weight" or "gross vehicle weight" has the same meaning as in s. 340.01 (20), Stats.

(20) "Homemade vehicle" has the same meaning as in s. 341.268, Stats.

(21) "Idle mode test" means an exhaust emission test conducted with the vehicle engine operating at an idle condition.

(22) "Inspection" means the mandatory vehicle emissions inspection.

(23) "Inspection report" (see "vehicle inspection report").

(24) "Inspection station" means an inspection facility operated by a contractor under contract with the department for the purpose of conducting vehicle emission inspections required by s. 110.20, Stats.

(25) "Inspector" means the individual(s) who performs the vehicle emission inspection for the contractor.

(26) "Letter of temporary exemption" means a letter which grants a temporary waiver from inspection and which may be issued by the department upon the request of owners of nonexempt vehicles subject to the requirements of this chapter that will be unavailable for inspection within the 90 day period preceding registration renewal.

(27) "Loaded mode test" means an exhaust emission test conducted on a chassis dynamometer, simulating driving conditions at approximately 25-30 MPH, for the purposes of preconditioning the vehicle and providing diagnostic information to the vehicle driver.

(28) "Model year" means the date 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. Determination of model year shall be as indicated on the vehicle's registration documents.

(29) "New vehicle" means a motor vehicle to which the legal title has never been transferred to an ultimate 'retail purchaser' as defined in s. Trans 139.02.

(30) "Nonexempt vehicle" means any motor vehicle defined under s. 340.01 (35), Stats., which is required to be registered in this state or which is owned by the United States, and which has not been exempted by s. 144.42 (5), Stats., and NR 154.17 (3) (b), Wis. Adm. Code.

Note: Chapter NR 154 may be obtained from the Wisconsin Department of Natural Resources, Bureau of Air Management, P.O. Box 7921, Madison, WI 53707.

(31) "Nonfleet vehicle" means any nonexempt vehicle except a motor vehicle owned or leased by a fleet owner. (s. 110.20 (1) (c), Stats.)

(32) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government.

(33) "Reconstructed vehicle" has the same meaning as in s. 341.268, Stats.

(34) "Registered owner" means the person or persons whose name appears on a vehicle's title.

(35) "Registration" has the same meaning as in s. 344.01 (2) (e), Stats.

(36) "Span gas" means a gas of known concentration which is used to set the output level of an analyzer.

(37) "Surveillance gas" means a gas used by the department to verify the calibration of emissions analyzers used by inspection stations and by fleet inspection stations.

(38) "Tamper" has the same meaning as in s. 144.42 (6), Stats.

(39) "Truck" has the same meaning as "motor truck" as in s. 340.01 (34), Stats.

(40) "Van" means a motor vehicle constructed on a truck chassis, with a completely enclosed driver and cargo compartment that may be used as a cargo carrying vehicle or as a passenger vehicle depending upon how it is equipped.

(41) "Vehicle" has the same meaning as in s. 340.01 (35), Stats.

(42) "Vehicle inspection report" means a serially numbered document issued at an inspection station at the time of vehicle inspection, indicating that that vehicle has been inspected in accordance with the provisions of this chapter.

(43) "Voluntary inspection" means the voluntary presentation for an emissions inspection of a nonexempt vehicle customarily kept in a county not identified under s. 110.20 (5), Stats.

(44) "Waiver of inspection" means the act of waiving the requirement that a vehicle pass specified emissions limitations when such vehicle has failed the required inspection, but has met other statutory requirements.

(45) "Waiver surveillance investigator" means the department employe who approves or disapproves applications for waivers and performs an emission control system tampering check.

(46) Abbreviations and symbols used in this chapter are:

(a) "CO" means carbon monoxide.

(b) "CO₂" means carbon dioxide.

(c) "GVW" means gross vehicle weight.

(d) "HC" means hydrocarbon.

(e) "HP" means horsepower.

(f) "I/M" means inspection and maintenance.

(g) "LNG" means liquified natural gas.

(h) "LPG" means liquid petroleum gas.

(i) "MPH" means miles per hour.

(j) "N₂" means a molecule consisting of two atoms of nitrogen.

- (k) "NDIR" means non-dispersive infra-red.
- (l) "NO" means nitric oxide.
- (m) "O₂" means a molecule consisting of two atoms of oxygen.
- (n) "%" means percent.
- (o) "PCV" means positive crankcase ventilation.
- (p) "PPM" means parts per million by volume.
- (q) "RPM" means revolutions per minute.
- (r) "VIN" means vehicle identification number.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.03 Emission inspection and reinspection procedure. (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.

Note: The 6 counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington and Waukesha were certified by the department of natural resources in a letter to the department dated August 21, 1981.

(b) Nothing in this chapter waives an expired registration because of failure to pass inspection requirements by the registration deadline.

(c) Vehicles fueled with gasohol, LNG or LPG are not exempt from the emission testing unless exempted for other reasons.

(d) Following initial registration of a new vehicle by a retail purchaser, a minimum of 90 days shall elapse prior to the vehicle becoming subject to the requirements of this chapter.

(e) For purposes of calculating the number of model years of vehicle age under ss. 110.20 (13) and 144.42 (5), Stats., a model year shall be considered synonymous with a calendar year. Not satisfying the emission inspection requirements of this chapter prior to the date of registration expiration shall not extend vehicle age.

Note: For example, 1970 model year vehicle shall be considered as being more than 15 model years old commencing January 1, 1985. Also, a vehicle which is required to be inspected in 1985 shall be considered as a model year of more than 10 years prior to the year of inspection if it is a 1974 model year vehicle or older.

(2) WHEN INSPECTION REQUIRED. Nonexempt vehicles subject to an annual inspection shall:

(a) Have the inspection completed at an inspection station or fleet inspection station, as a prerequisite to annual registration renewal, no more than 90 days prior to renewal of annual registration, or

(b) For government owned vehicles, have the inspection completed annually.

(3) POLLUTANTS TO BE TESTED. Vehicle emissions inspection shall consist of sampling the exhaust emissions from the tailpipe or tailpipes, and measuring the concentrations of hydrocarbons (HC), carbon monoxide (CO), and carbon dioxide (CO₂).

(4) **EMISSION STANDARDS.** Vehicles that do not meet the exhaust emission standards under s. NR 154.17, Wis. Adm. Code, shall fail the inspection.

(5) **DOCUMENT REQUIREMENTS.** Each vehicle to be inspected at an inspection station shall be accompanied by one of the following documents which identifies the vehicle by make, model year, vehicle identification number, and license number:

(a) A current Wisconsin vehicle license renewal notice.

(b) A current Wisconsin certificate of registration.

(c) A vehicle inspection report if a reinspection.

(d) A letter of temporary exemption issued by the department.

(e) A letter issued by the department at the time registration renewal is denied notifying the vehicle owner that the department has not received proof of emissions compliance.

(f) A properly completed MVD 2016 form.

(6) **EMISSION TESTING PROCEDURE.** (a) *General requirements.* 1. Vehicles shall be tested in an as-received condition. The engine shall be at normal operating temperature, not overheating, as indicated by gauge, warning light or boiling radiator, and with all accessories off.

2. The vehicle shall be nearly level when tested in order to prevent abnormal fuel distribution.

3. Vehicles with multiple exhaust pipes may be tested by simultaneous sampling of all tailpipes, or by sampling each tailpipe separately and numerically averaging the emissions measurements.

(b) *Inspection procedures.* 1. For all vehicles other than four-wheel drive vehicles, and for which the driver's seat is yielded to the inspector, a loaded mode test shall be performed.

2. For automatic transmission equipped vehicles, the loaded mode test shall be performed in drive. For manual transmission equipped vehicles, the loaded mode test shall be performed in second or higher gear.

3. For constant or automatic locking four-wheel drive equipped vehicles, and for which the driver's seat is yielded to the inspector, a fast idle test will be performed in lieu of the loaded mode test. This test shall be performed by increasing idle engine speed to an unmeasured 2500 RPM.

4. Exhaust emission concentrations shall be recorded after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. Engine speed shall be returned to idle.

5. The vehicle shall be idled in neutral. Exhaust emission concentrations shall be recorded after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first.

6. The exhaust emission concentration values for the idle test shall be used to determine compliance with the HC and CO emission concentrations of s. NR 154.17, Wis. Adm. Code.

(c) *Fast idle test.* The fast idle test may be performed in lieu of the loaded mode test on a vehicle if:

1. 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 any other condition in the opinion of the contractor, that precludes loaded mode testing for reasons of health or safety or both, to personnel, facilities, equipment or vehicle.

2. The person presenting the vehicle for inspection refuses the loaded mode inspection, or does not yield the driver's seat to the inspector.

3. The contractor experiences a mechanical or electrical malfunction in the operation of the dynamometer. Under such circumstances the use of the fast idle test shall not extend beyond the end of the working day.

4. A fleet inspection station chooses not to conduct a loaded mode test.

(7) **REINSPECTIONS.** (a) Vehicles exceeding the allowable exhaust emission standards during the vehicle's initial inspection, may be reinspected at any inspection station after the vehicle has been repaired or adjusted according to s. 110.20, Stats., and this chapter.

(b) The vehicle shall be accompanied by its previous vehicle inspection report(s), and repair information as completed by the person performing the repairs shall be indicated in the space provided on the report(s).

(c) If the vehicle successfully passes the retest, the contractor shall issue a vehicle inspection report indicating compliance. If the vehicle cannot successfully pass the retest, the contractor shall issue a vehicle inspection report indicating non-compliance. If the owner desires to request a waiver of compliance, the department's waiver surveillance investigator shall review the request and shall approve or deny the request in accord with s. Trans 131.04.

(d) The following limitations on the total number of emission tests shall apply for each vehicle requiring compliance with this chapter:

1. Not more than 2 reinspections per vehicle.

2. If the vehicle is still unable to satisfactorily meet applicable emission limitations, the owner or driver may apply for a waiver of compliance in accord with s. Trans 131.04.

(8) **TESTING PROHIBITED.** The inspector shall refuse to perform the emissions inspection required by this section for any vehicle if:

(a) Leakage within the exhaust system significantly dilutes the exhaust gas being sampled, or there are any other conditions that could materially affect the validity of the exhaust gas concentrations. Exhaust gas dilution shall be considered significant whenever the concentration of CO₂ is measured to be less than 4% by volume. When the measured CO₂ concentration is less than 4% by volume, the driver shall be verbally notified of the invalid test and no vehicle inspection report shall be printed.

(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.

(9) **RECONSTRUCTED AND HOMEMADE VEHICLES.** All reconstructed and homemade vehicles shall be inspected for emissions compliance using the exhaust emission standards applicable to the model year of the vehicle as indicated on the vehicles' registration documents, unless the owner requests the vehicle be tested by engine year and the owner provides a signed statement to the department's 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.

(10) **VEHICLES WITH EXCHANGED ENGINES.** A motor vehicle with an exchanged engine shall be inspected for emission compliance by the model year of the vehicle unless the owner requests the vehicle be tested by engine year and 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.

(11) **TRUCKS AND VANS.** (a) All trucks shall be tested in accord with the exhaust emission standards for light duty trucks as applicable to the manufacturer's GVW rating as indicated on the vehicles doorpost. If there is no manufacturer's GVW rating available, then the vehicle shall be tested according to the registered GVW as indicated on the vehicle's entry document described in sub. (5), or as indicated on the vehicle's license plate.

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

(12) **VEHICLE INSPECTION REPORT.** (a) The operator of each vehicle inspected shall be provided with a vehicle inspection report at the time an inspection is completed. The inspection report shall indicate:

1. The test serial number.
2. The date of the test.
3. The vehicle identification number (VIN).
4. The year and make of the vehicle.
5. Odometer reading to nearest 1,000 miles.
6. Emission test results and standards for the vehicle.
7. The pass/fail result.
8. Instructions indicating that the report is to be returned to any emissions test station upon reinspection.
9. Space to indicate repair by owner, garage, or repair facility and the name and address of the repairer.
10. Space to indicate cost of parts and labor for emission-related repair(s).
11. Space to indicate the emission-related repair(s) performed.

12. Space to indicate estimated cost for emission-related repairs.
13. Advisory diagnostic information.
14. Vehicle license number.
15. Other information as the department may reasonably require to enable it to determine compliance with this chapter.

Note: MVD form 2470, Vehicle Inspection Report.

(b) Each driver of a vehicle failing inspection shall receive an inspection report supplement containing the following:

1. Instructions indicating that the vehicle should be repaired and returned to an inspection station for a retest,
2. Explanation of repair cost limit for emission related repairs,
3. Low-emissions adjustment definition, and
4. Instructions for waiver applications.

(c) The probable causes of noncompliance if a loaded mode or a fast idle test was performed shall be contained on either the vehicle inspection report or the inspection report supplement.

Note: MVD Form 2471, Inspection report supplement.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.04 Waiver of compliance procedure. (1) **ELIGIBILITY.** A vehicle, including a fleet vehicle, which fails to pass the designated emission standards upon an initial inspection, and which after repair and/or adjustment again fails to pass the emission inspection, shall be eligible for a waiver of compliance determination by the department's waiver surveillance investigator provided the following conditions are complied with:

(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 at the time of the annual emissions inspection, the operator must present either a written statement from a vehicle dealership or other designated agent declaring that the vehicle is not eligible for emission control system warranty work, or present a dated invoice indicating that eligible emission control system warranty work has been performed.

(b) The repairs and adjustments made to the vehicle's emissions control system, including costs for parts and labor, have been performed on the vehicle within 90 days prior to renewal of annual 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 and an itemized receipt indicating the parts purchased, cost, and date of purchase shall be provided.

(c) The vehicle shall be able to pass a tampering inspection as described in s. Trans 131.05.

(2) **CRITERIA.** A vehicle which meets the eligibility requirements of sub. (1) shall be granted a waiver of compliance if any one of the following conditions are met:

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(a) The actual cost of repairs performed on the vehicle as reported in accordance with sub. (1) (b) 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 emission control device that has been tampered with are to be excluded. (s. 110.20 (13) (c), Stats.)

(b) The estimated cost of repairs and adjustments necessary to bring a vehicle into compliance with all applicable emission limitations exceeds the repair cost limit as provided in s. 110.20 (13) (b), Stats., and a low emissions adjustment as prescribed by s. 110.20 (13) (d), Stats., has been performed on the vehicle within 90 days prior to renewal of annual registration. Evidence of the performance of a low emissions adjustment shall be provided in accordance with sub. (1) (b), and an estimate of cost shall also be given in the space provided on the vehicle inspection report.

(c) The model year of the vehicle is more than 10 years prior to the year of inspection and a low emissions adjustment as prescribed by s. 110.20 (13) (d), Stats., has been performed on the vehicle within 90 days prior to renewal of annual registration. Evidence of the performance of a low emissions adjustment shall be provided in accordance with sub. (1) (b).

(d) Technical difficulties in the manufacturer's design or construction of the vehicle prevent emission testing of the vehicle.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.05 Tampering inspection procedure. (1) When a waiver of compliance is requested, each vehicle may be checked for obvious tampering of the emission control system by the department's waiver surveillance investigator. This check is designed to allow the detection of visual or obvious tampering and does not allow removal or disassembly of parts. The waiver surveillance investigator shall look for the following:

(a) Presence of a properly connected catalytic converter; for example, has the converter been removed, by-passed, or physically altered to be ineffective?

(b) Presence of a fuel tank filler tube restrictor, which has not been enlarged to allow the use of leaded fuel nozzles.

(c) Presence of properly installed thermostatic air cleaner assembly with hot air duct from the exhaust manifold in place.

(d) Presence of an operational air pump and its properly connected components; for example, is the belt on and does air pump pulley rotate when engine is started?

(e) Presence of a properly connected positive crankcase ventilation system.

(2) Failing the tampering inspection shall be considered the same as failing the emission test. Vehicles failing the tampering inspection shall not be granted a waiver of compliance until the tampered items are repaired or replaced.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

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Trans 131.06 Evidence of inspection compliance. (1) Evidence of inspection compliance shall consist of:

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

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

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.07 Voluntary inspections. (1) The contractor shall inspect any nonexempt vehicle that is kept in a county not subject to the requirements of this chapter and which is presented for inspection at an inspection station provided:

(a) Each vehicle presented is accompanied by a current Wisconsin vehicle license renewal notice, and

(b) The vehicle is not prohibited from testing pursuant to s. Trans 131.03 (8).

(2) The voluntary presentation of a vehicle for inspection in accord with sub. (1) shall not impose any mandatory requirement upon a vehicle owner to comply with requirements of this chapter.

(3) A vehicle owner shall not be entitled to a voluntary inspection more frequently than once during any 12 month period.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.08 Letter of temporary exemption from test requirements. (1) When a vehicle subject to the emission inspection requirements of this chapter will not be available for an inspection due to the vehicle's absence or inoperativeness, or the owner's or lessee's absence or incapacity, during the 90 day period prior to the license expiration date, the owner or lessee may request of the department a letter of temporary exemption from the requirements of this chapter.

(2) The department shall provide an application form on which the vehicle owner or lessee shall identify the vehicle involved, provide the reason for requesting a letter of temporary exemption, certify that the vehicle will not be available for emissions 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) Upon approval of the application by the department, a letter of temporary exemption shall be issued to the vehicle owner or lessee. Such issuance 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 require that the vehicle be inspected within 30 days of when the applicant indicates that the vehicle will again be operated within a Wisconsin county subject to the emission inspection requirements of this chapter.

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(4) A letter of temporary exemption shall not be valid longer than the period of registration renewal.

Note: MVD form 2472, Letter of Temporary Exemption from Emission Test Requirements.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.09 Audits of inspection facilities. (1) Representatives of the department shall conduct audits of testing equipment, procedures and records as follows:

(a) Contractor operated facilities shall be audited on an unscheduled basis, normally not less than monthly.

(b) Fleet station facilities shall be audited on an unscheduled basis, normally not less than quarterly.

(2) Scheduled audits of both types of facilities may be performed at any time.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.10 Equipment calibration procedures, exhaust gas analyzer specifications. (1) All equipment utilized for emission inspections shall be calibrated and maintained according to the manufacturer's specifications or as superceded by contract between the department and the contractor.

(2) The contractor's NDIR exhaust gas analyzers shall comply with the following specifications. Concentrations shall be measured by volume.

(a) Analyzers shall have accuracy according to the following:

1. HC: ± 12 ppm from 0 to 400 ppm, ± 30 ppm from 401 to 1000 ppm, and ± 60 ppm from 1001 to 2000 ppm (measured as hexane).

2. CO: $\pm 0.06\%$ from 0 to 2%, $\pm 0.15\%$ from 2.01 to 5%, and $\pm 0.3\%$ from 5.01 to 10%.

3. CO₂: $\pm 0.9\%$ from 4 to 10%, and $\pm 0.5\%$ from 10.1 to 14%.

(b) Response time of the analyzers shall be not more than 15 seconds to 95% of the final reading.

(c) Analyzer drift (up-scale and down-scale zero and span wander):

1. The zero drift shall not exceed $\pm 0.1\%$ CO and ± 15 ppm HC (measured using hexane gas) during a one-hour period.

2. The span drift shall not exceed $\pm 0.1\%$ CO and ± 15 ppm HC (measured using hexane gas) during a one-hour period when sampling approximately 2% CO and 400 ppm HC (measured using hexane gas).

(d) Calibration: The analyzer shall have the capability of being calibrated electronically and/or by gas.

(e) Flow restriction indicator: The analyzer shall be operated within manufacturer's specifications for sample flow. The sampling system shall be equipped with a visual and/or audible warning that sample flow is not within operating requirements.

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(f) Interference effects: Sampling the following concentrations of non-interest gases shall not cause the HC reading to change by more than ± 10 ppm: 15% CO₂ in N₂, 10% CO in N₂, 3000 ppm NO in N₂, 10% O₂ in N₂, and 3% H₂O vapor in air.

Sampling the following concentrations of noninterest gases shall not cause the CO reading to change by more than +0.05%: 15% CO₂ in N₂, 1600 ppm HC in N₂, 3000 ppm NO in N₂, 10% O₂ in N₂, and 3% H₂O vapor in air.

(g) Repeatability: The repeatability of the exhaust EMS used shall be within +10 ppm HC and $\pm .05\%$ CO during 5 successive measurements of the same sample when sampling 320 ppm HC (measured using hexane gas) and 1.6% CO.

(h) Sensitivity: The analyzer sensitivity shall be 10 ppm HC and .05% CO in the range up to 2% CO and 400 ppm HC (measured using hexane gas).

(i) Temperature and humidity operating range: The EMS shall be capable of meeting all specifications from 10 to 90% relative humidity and 5°C to 27°C temperature.

(j) Range of Measurement: The analyzer shall have a range of 0-2000 ppm HC (measured using hexane gas), 0 to 10% CO, and 0 to 15% CO₂.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.11 Fleet inspection station permits. (1) GENERAL REQUIREMENTS. Any owner or lessee of at least 15 vehicles subject to the emissions inspection requirements of this chapter and who maintains and repairs these vehicles on a regular basis may apply to the department for a permit to establish a fleet inspection station. The department shall not issue a fleet inspection station permit unless an inspection by the department indicates that the applicant maintains and operates an established facility which meets the following requirements:

(a) The applicant shall provide a building or a portion thereof devoted principally to maintaining or repairing the fleet's motor vehicles on a regular basis. Such a facility shall be of sufficient space to conduct maintenance or repair of at least one fleet motor vehicle.

(b) The applicant shall have an NDIR HC and CO emission analyzer that meets the analyzer accuracy specifications of s. Trans 131.10 (2) (a). NDIR emission analyzer calibration equipment and routine maintenance items shall also be available.

(c) The applicant shall have available, and maintain in good working condition, the tools and equipment necessary for the adjustment, repair, and tuneup of vehicles within the applicant's fleet.

Note: MVD form 2473, Fleet Station Inspection Permit.

(2) PERMIT REQUIREMENTS. Each permit issued by the department shall be subject to the provisions of sub. (1) and the following:

(a) A fleet inspection station shall inspect and certify compliance for only those vehicles leased or owned by the fleet owner.

(b) Permits shall expire 2 years from date of issuance and are non-transferable.

(c) A permit shall only be applicable to the fleet's inspection facility located at the address shown on the fleet inspection station permit.

(d) Changes in name or address of permittee shall be promptly reported to the department.

(e) A fleet owner whose station permit has expired or has been revoked shall cease the activity requiring a permit and return all unused vehicle inspection report forms to the department.

(f) A mechanic who meets the educational or proficiency requirements of s. Trans 131.12 (3) shall be employed to conduct all required inspections.

(g) The department may require the applicant's mechanic or mechanics to demonstrate proficiency in the use, calibration and maintenance of the NDIR 2 gas analyzer.

(h) Inspection of fleet vehicles shall meet the requirements of s. Trans 131.12.

(i) The department's representative may designate the reinspection of a fleet vehicle at a time convenient to the fleet owner and state inspector.

(j) The fleet owner shall withhold application for registration renewal on each inspected vehicle for at least 5 working days after the fleet owner has forwarded the original vehicle inspection report for that vehicle to the department under s. Trans 131.12 (5) (d).

History: Cr. Register, April, 1984, No. 340, eff. 6-1-84.

Trans 131.12 Inspection of fleet vehicles. (1) EQUIPMENT AND RECORDS. All testing equipment and instrumentation shall be maintained in good working order. Periodic calibration and maintenance of testing equipment shall be performed as required by s. Trans 131.14.

(a) A record of all calibrations and leak checks performed on each instrument shall be maintained by the fleet owner indicating the date and signature of the mechanic performing the calibration. These records shall be retained for a period of 2 years and shall be made available for review by the department.

(b) The fleet inspection station equipment, calibration gases, records, and premises may be subject to both scheduled and unscheduled checks for quality control and quality assurance by a department representative.

(2) **INSPECTION FREQUENCY.** All fleet vehicles for which a fleet inspection station permit has been issued shall be inspected within 90 days prior to renewal of annual registration or, for government vehicles, once each calendar year while the vehicles are part of the fleet.

(3) **FLEET INSPECTION STATION INSPECTOR PROFICIENCY.** Persons employed as mechanics by the holder of a fleet inspection station permit, and that are to conduct the compliance testing for HC and CO, shall be required to provide documentation to the department that they:

(a) Have completed a one year vocational degree program in automotive servicing, or a 2 year vocational or associate degree program in automotive mechanics, or equivalent, from an accredited vocational, technical and adult education institution, or

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(b) Have completed course work in vehicle emissions control principles for automotive mechanics as offered by a vocational, technical and adult education school, or

(c) Are mechanics certified by the national institute for automotive service excellence, or

(d) Have received appropriate training in the utilization of the emission measuring equipment that the fleet station is equipped with, or

(e) Meet other equivalency requirements acceptable to the department.

(4) EMISSION INSPECTION PROCEDURE. (a) The exhaust emission inspection shall be conducted according to s. Trans 131.03 (6), except that the idle speed of each tested vehicle shall be adjusted to manufacturer's specifications if it deviates from the specified value by more than plus or minus 100 RPM.

(b) Pre-conditioning of the fleet vehicles with either the loaded mode or fast idle test is permissible, but not required.

(c) A visual check of the vehicle's exhaust system shall be made to insure that it is free from leakage or any other condition which could materially affect the validity of exhaust gas concentrations.

(5) VEHICLE INSPECTION REPORTS. Vehicle inspection reports (VIR), as supplied by the department, shall be issued and processed as follows by the fleet station:

(a) A vehicle inspection report shall be completed for each vehicle after it has passed the emission inspection. Vehicle identification data, the fleet station identification number, and the date of test shall be indicated on the report along with idle emission readings for HC and CO and such further information as the department may reasonably require to enable it to determine compliance with this chapter.

(b) Voided or unusable inspection reports shall be returned to the department for replacement.

(c) Only the fleet inspection station mechanic(s) may sign a vehicle inspection report, except that in the case of a fleet inspection station permit holder who secures the services of the contractor to perform the emissions testing, the contractor's employe's name or code may be mechanically imprinted on the inspection reports.

(d) A legible copy of each completed inspection report shall be retained at the fleet inspection station where the inspection is conducted for a minimum of 24 months after inspection. The original completed report shall be forwarded to the department.

(e) The fleet owner is responsible for the security and accountability of the vehicle inspection report forms.

(6) INSPECTION OF NDIR ANALYZERS. (a) A fleet inspection station emission analyzer shall not be used for an official emissions inspection if it cannot identify the department's surveillance gases within the tolerances specified in s. Trans 131.10 (2), or if there is a leak in the sampling systems or the calibration port, or if the sample handling system is restricted.

(b) A fleet station may lease or borrow an emission analyzer for temporary use while the station's approved analyzer is being repaired provided that a department representative has approved its use.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.13 Termination of fleet inspection station permits. (1) The department may terminate a fleet inspection station permit issued under s. 110.20 (14), Stats., and this chapter if the permittee:

- (a) Violates any provision of this chapter.
- (b) Has misrepresented a material fact in obtaining a permit.
- (c) Fails to make and keep proper records showing vehicles tested, fails to submit the records to the department, or to make such records available to the department.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.14 Maintenance and calibration of fleet inspection equipment. (1) All equipment utilized for the emission inspections shall be calibrated and maintained according to the manufacturer's specifications and recommendations in the absence of appropriate calibration and maintenance procedures in this section.

(2) Emission analyzer equipment utilized by a fleet emission inspection station shall use the following calibration and maintenance procedures, unless the instrument manufacturer's procedures are more restrictive.

(a) Exhaust analyzers shall be warmed up for at least 30 minutes prior to performing any test or equipment calibration, span or zero checks.

(b) If, during a test, the sampling flow restriction indicator becomes activated, the test shall be stopped and restarted after the necessary repairs or adjustments to the analyzer have been completed.

(c) The exhaust gas analyzers shall have been spanned and adjusted, if necessary, using gas traceable to National Bureau of Standards $\pm 2\%$ within one week of the emission test. These span gases shall have concentrations within -50% to $+100\%$ of 1.2% CO and 220 ppm HC.

(d) The exhaust gas analyzers shall be zeroed and spanned prior to each test. An electrical span check is acceptable.

(e) The exhaust analyzer shall not be used to test vehicles unless a multipoint calibration has been performed within 30 days prior to testing.

(4) A multipoint calibration shall be performed before the analyzer is used for certification testing following replacement of optical or electrical components that could cause a variation in the analyzer reading.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.

Trans 131.15 Notification of inspection requirements. As part of the notification process for vehicle registration renewal under s. 341.08 (4m), Stats., the department will include notification to vehicle owners whose Register, April, 1984, No. 340

vehicles are or may be subject to the emission test requirements of this chapter.

History: Cr. Register, April, 1984, No. 340, eff. 5-1-84.