

Historical Note

Adopted effective August 9, 1985 (Supp. 85-4). Former Section R9-3-922 renumbered without change as Section R18-2-922 (Supp. 87-3). Repealed effective February 26, 1988 (Supp. 88-1).

ARTICLE 10. MOTOR VEHICLES; INSPECTIONS AND MAINTENANCE

R18-2-1001. Definitions

In this Article, unless the context otherwise requires:

1. Abbreviations and symbols are as follows:
 - a. "A/F" means air/fuel.
 - b. "CID" means cubic inches displacement.
 - c. "CO" means carbon monoxide.
 - d. "CO₂" means carbon dioxide.
 - e. "EGR" means exhaust gas recirculation.
 - f. "GVWR" means gross vehicle weight rating.
 - g. "HC" means hydrocarbon.
 - h. "HP" means horsepower.
 - i. "LNG" means liquefied natural gas.
 - j. "LPG" means liquid petroleum gas.
 - k. "LVW" means loaded vehicle weight.
 - l. "MPH" means miles per hour.
 - m. "MVD" means the Motor Vehicle Division of the Arizona Department of Transportation.
 - n. "NDIR" means nondispersive infrared.
 - o. "NO_x" means the sum of nitrogen oxide and nitrogen dioxide.
 - p. "%" means percent.
 - q. "OEM" means original equipment manufacturer.
 - r. "PROM" means programmable read-only memory.
 - s. "PCV" means positive crankcase ventilation.
 - t. "PPM" means parts per million by volume.
 - u. "RPM" means revolutions per minute.
 - v. "VIN" means vehicle identification number.
 - w. "VIR" means vehicle inspection report.
2. "Annual test" means any vehicle emissions test that is not a biennial test.
3. "Apportioned vehicle" means a vehicle that is subject to the proportional registration provisions of A.R.S. § 28-2233.
4. "Area A" has the same meaning as in A.R.S. § 49-541.

- "Area A vehicle" means a motor vehicle subject to emission inspection and that is:
- a.i Registered or to be registered within area A;i
 - b.i Owned by or leased to a person having a valid fleet permit and customarily kept in area A;i
 - c.i A governmental vehicle customarily kept in area A;i
 - d. Used to commute to the driver's principal place of employment located in area A; or
 - e.i Parked, will be parked, or is the subject of a parking permit application at an institution located in area A and subject to the requirements of A.R.S. § 15-1444(C) or 15-1627(G).
6. "Area B" has the same meaning as in A.R.S. § 49-541.
7. "Area B vehicle" means a motor vehicle subject to emission inspection and that is:
- a. Registered or to be registered within area B;i
 - ib. Owned by or leased to a person having a valid fleet permit and customarily kept in area B;
 - c. A governmental vehicle customarily kept in area B;i
 - d. Used to commute to the driver's principal place of employment located in area B; or
 - e.i Parked, will be parked, or is the subject of a parking permit application at an institution-located in area B and subject to the requirements of A.R.S. § 15-1444(C) or 15-1627(G).
8. "Biennial test" means the transient loaded emission test and evaporative system tests required under R18-2-1006(E)(2).
9. "Calibration gas" means a gas with assigned concentrations of CO, hexane, or CO(2) that is used by a state inspector to check the accuracy of emissions analyzers.
10. "Certificate of compliance" means a serially numbered document issued by a state station at the time of a vehicle inspection indicating that the vehicle has met the emissions standards.
11. "Certificate of exemption" means a serially numbered certificate issued by the Director exempting a vehicle that is not available within the state for an inspection during the 90 days before the emissions compliance expiration date.
12. "Certificate of inspection" means a serially numbered document issued by the Director indicating that a vehicle has been inspected under A.R.S. § 49-546 and has passed inspection.
13. "Certificate of waiver" means a serially numbered document issued by the Department or a fleet inspector other than an auto dealer licensed to sell used motor vehicles under Title 28 of the Arizona Revised Statutes indicating that the requirement of passing reinspection has been waived for a vehicle under A.R.S. § 49-542.
14. "Conditioning mode" means either a fast idle condition or a loaded condition as defined in this Section.
15. "Constant 4-wheel drive vehicle" means any 4-wheel drive vehicle with 4 wheels and that cannot be converted to 2-wheel drive except by disconnecting 1 of the vehicle's drive shafts.
16. "Constant volume sampler" means a system that dilutes engine exhaust to be sampled with ambient air so that the total combined flow rate of exhaust and dilution air mix is nearly constant for all engine operating conditions.
17. "Contractor" means a person, business firm, partnership, or corporation with whom the Director has a contract that provides for the operation of 1 or more official emissions inspection stations.
18. "Curb idle test" means an exhaust emissions test conducted with the engine of the vehicle running at the manufacturer's idle speed \pm 100 RPM but without pressure exerted on the accelerator.
- 19.i "Curb weight" means a vehicle's unloaded weight without fuel and oil plus 300 pounds.i
- 20.i "Dealer" means a person or organization licensed by the Arizona Department of Transportation as a new motor vehicle dealer, used motor vehicle dealer, or motorcycle dealer.i
21. "Department" means the Department of Environmental Quality.
22. "Director" means the Director of the Department of Environmental Quality.i
- 23.i "Director's certificate" means a serially numbered document issued by the Director in special circumstances that the Director deems inappropriate for the vehicle to show evidence of meeting the minimum standards for registration or reregistration under R18-2-1019 or R18-2-1022.
24. "Electrically-powered vehicle" means a vehicle that both uses electricity as the means of propulsion and does not require the combustion of fossil fuel within the confines of the vehicle in order to generate electricity.
25. "Emissions compliance expiration date" means:
- a.i Each registration expiration date for vehicles subject to annual tests; and
 - b. The registration expiration date in the 2nd year after the initial biennial test required under this Article or R18-2-1005(B) for vehicles subject to biennial tests.i
26. "Emissions inspection station permit" means a certificate issued by the Director authorizing the holder to perform vehicle inspections under this Article.
27. "Exhaust emissions" means products of combustion emitted into the atmosphere from any opening downstream of the exhaust ports of a motor vehicle engine.
28. "Exhaust pipe" means the pipe that attaches to the muffler and exits the vehicle.
29. "Fast idle condition" means to operate a vehicle by running the engine at 2,500 RPM, \pm 300 RPM, for up to 30 seconds, with the transmission in neutral, to prepare the vehicle for a subsequent curb idle test.
30. "Fast pass or fast fail algorithm" means a procedure in a vehicle emission testing system that logically determines whether a vehicle will pass or fail the biennial test before the test is over.
31. "Fleet emissions inspection station" or "fleet station" means any inspection facility operated under a permit issued under A.R.S. § 49-546.
32. "Fuel" means any material that is burned within the confines of a vehicle to propel the vehicle.
33. "Four-stroke vehicle" means a vehicle equipped with an engine that requires 2 revolutions of the crankshaft for each piston power stroke.
34. "Golf cart" means a motor vehicle that has not less than 3 wheels in contact with the ground, has an unladen weight less than 1,300 pounds, is designed to be and is operated at not more than 15 MPH, and is designed to carry golf equipment and persons.
35. "Government vehicle" means a registered motor vehicle exempt from the payment of a registration fee, or a federally owned or leased vehicle.
36. "Gross vehicle weight rating" (GVWR) means the maximum vehicle weight that the vehicle is designed for as established by the manufacturer.
37. "Inspection" means the mandatory vehicle emissions inspection including the tampering inspection.

38. "Inspection sticker" means a self-adhesive, serially numbered rectangular sticker indicating a government vehicle has met Arizona emissions inspection requirements.i
39. "Loaded condition" means to condition a vehicle by running the vehicle on a chassis dynamometer at a specified speed and load for no more than 30 seconds to prepare the vehicle for a subsequent curb idle test.i
40. "Loaded cruise test" means an exhaust emissions test conducted on a chassis dynamometer under R18-2-1(C)(6)(E)(1)(a) and (F)(2)(a).
41. "Mass emission measurement" means measurement of a vehicle's exhaust in mass units such as grams.
42. "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 vehicle, the 1st year of titling.
43. "MOL percent" means the percent, by volume, that a particular gas occupies in a mixture of gases at a uniform temperature.
- 44.i "Motorcycle" means a motor vehicle, other than a tractor, having a seat or saddle for use of the rider and designed to travel on not more than 3 wheels in contact with the ground. i
- 45.i "Motorhome" means a vehicle built on a truck or bus chassis and equipped as a self-contained traveling home.i
- 46.i "New aftermarket catalytic converter" or "new aftermarket converter" means a catalytic converter, except for an OEM, that meets the standards under 40 CFR 86.i
- 47.i "Official emissions inspection station" means an inspection facility, other than a fleet emissions inspection station, whether placed in a permanent structure or in a mobile unit for conveyance to various locations within the state, for the purpose of conducting inspections under A.R.S. § 49-542.i
- 48.i "Opacity" means the degree of absorption of transmitted light.i
- 49.i "Operational air pump" means an air injection system (AIS) to supply additional oxygen (air) into the exhaust system to promote further oxidation of HC and CO gases and to assist in catalytic reaction.i
- 50.i "Person" means the federal government, state, or any federal or state agency or institution, any municipality, political subdivision, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, or public or private corporation.i
51. "Reconditioned OEM catalytic converter" or "reconditioned OEM converter" means a used OEM reconditioned equivalent or an OEM converter that has had the pellets replaced with new or used OEM equivalent pellets and that also meets the standards under 40 CFR 86.
52. "Recognized repair facility" means a business with an Arizona transaction privilege (sales) tax license whose primary purpose is vehicle repair, and having at least 11 employee with a nationally recognized certification for emissions-related diagnosis and repair.i
53. "Reconstructed vehicle" means:
 - a.i A reconstructed special as identified by the code letters "SP" on the section of the vehicle's Arizona registration card or Arizona certificate of title reserved for identification of the vehicle's style; or
 - b. A vehicle in which the vehicle style is not shown on the Arizona registration card or certificate of title, and the original manufacturer of the complete vehicle cannot be identified from the body. i
- i 54. "Standard gases" means gases maintained as a primary standard for determining the composition of working gases, calibration gases, or the accuracy of emissions analyzers.i
55. "State inspector" means an employee of the Department designated to perform quality assurance or waiver functions under this Article.i
56. "State station" means an official emissions inspection station operated by a contractor.i
- 57.i "Tampering" means removing, defeating, or altering an emissions control device installed at the time the vehicle was manufactured. For the purposes of this Article, defeating includes failure to repair any malfunctioning emission control system or device.i
- 58.i "Two-stroke vehicle" means a vehicle equipped with an engine that requires 1 revolution of the crankshaft for each power stroke.i
- i 59. "Unloaded fast idle test" means an exhaust emissions test conducted with the engine of the vehicle running at 2,500 RPM. i
- 60.i "Vehicle" means any automobile, truck, truck tractor, motor bus, or self-propelled or motor-driven vehicle registered or to be registered in this state and used upon the public highways of this state for the purpose of transporting persons or property, except implements of husbandry, roadrollers, or road machinery temporarily operated upon the highway.i
- 61.i "Vehicle emissions inspector" means an individual who is licensed by the Director to perform vehicle emissions inspections under this Article.i
- 62.i "Working gases" means gases maintained to perform periodic calibration of emissions analyzers.i

R18-2-1003. Vehicles to be Inspected by the Mandatory Vehicle Emissions Inspection Program

- A. The following vehicles shall be inspected according to this Article at a state station or a fleet station unless exempted by subsection (B):
1. A vehicle to be registered or reregistered within area A or area B for highway use. For the purposes of this Article, registration or reregistration within area A or area B shall be determined by the vehicle owner's permanent and actual residence. The permanent address in the MVD database shall be presumed to be the owner's permanent and actual residence. A post office box address listed on a title or registration document under A.R.S. § 28-2051(C) is not evidence of the owner's permanent and actual residence;
 2. Each vehicle delivered to retail purchasers by a dealer licensed to sell used motor vehicles for highway use under A.R.S. Title 28 and whose place of business is located in area A or area B;
 3. Each vehicle registered outside area A and area B but used to commute to the driver's principal place of employment located within area A or area B;
 4. Each vehicle owned by a person who is subject to A.R.S. §§ 15-1444(C) or 15-1627(G); and
 5. An area A or area B vehicle located out-of-state for more than 90 days before vehicle registration expiration shall be emissions tested at an official emissions inspection testing center in the area where it is located. If no official emissions testing program is available in the area for that vehicle, the vehicle shall meet the testing requirements under this Article within 15 calendar days of returning to Arizona.
- B. The following vehicles are exempt from the inspection requirements of this Article:
1. A vehicle manufactured in or before the 1966 model year;
 2. A vehicle leased to a person residing outside area A and area B by a leasing company whose place of business is in area A or area B, except as provided in subsection (A)(3);
 3. A vehicle sold between motor vehicle dealers;
 4. An electrically-powered vehicle;
 5. An apportioned vehicle;
 6. A golf cart;
 7. A vehicle with an engine displacement of less than 90 cubic centimeters;
 8. A vehicle registered at the time of change of name of ownership except when:
 - a. The change in registration is accompanied by required fees for the year following expiration of the prior registration, or
 - b. The change results from the sale by a dealership whose place of business is located in area A or area B;
 9. A vehicle for which a current certificate of exemption or Director's certificate has been issued;
 10. A diesel-powered vehicle in area A applying for registration or reregistration 33 months or less after the date of initial registration as a new vehicle; and
 11. Vehicles of a model year the same as, or newer than, the current calendar year and vehicles of the prior 4 model years, except:
 - a. Reconstructed vehicles;
 - b. Vehicles requiring emissions testing under R18-2-1015; and
 - c. Vehicles failing an emissions inspection the owner chooses to have under A.R.S. § 49-543.
- C. Government vehicles operated in area A or area B and not exempted by this Article shall be emissions inspected according to R18-2-1017.

Historical Note

Former Section R9-3-1003 repealed, new Section R9-3-1003 adopted effective January 13, 1976; Amended as an emergency effective January 19, 1976 (Supp. 76-1). Amended effective January 3, 1977 (Supp. 77-1). Amended effective January 3, 1979 (Supp. 79-1). Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1003 as amended effective January 3, 1979 and amended as an emergency effective January 2, 1981 now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended subsection (A) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1003 renumbered as Section R18-2-1003 and amended effective August 1, 1988 (Supp. 88-3). Amended effective September 19, 1990 (Supp. 90-3). Amended effective November 14, 1994 (Supp. 94-4). Amended effective October 15, 1998 (Supp. 98-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4). Amended by final rulemaking at 6 A.A.R. 2722, effective June 28, 2000 (Supp. 00-2).

R18-2-1005. Time of Inspection

- A. All area B vehicles, area A vehicles subject to an annual test, and vehicles sold or offered for sale by dealers required to be inspected under R18-2-1003 shall be inspected at the following times:
1. For vehicles not covered by a fleet station permit, within 90 days before each registration expiration date.
 2. For vehicles sold by a dealer licensed to sell used motor vehicles under A.R.S. Title 28, whose place of business is located in area A or area B, before delivery of the vehicle to the retail purchaser.
 3. For consignment vehicles offered for sale by a dealer licensed to sell used motor vehicles under Title 28 whose place of business is located in area A or area B, before delivery of the vehicle to the retail purchaser. Such consignment vehicles shall be inspected at a state station according to R18-2-1006.
 4. For government vehicles:
 - a. For vehicles not exempt under R18-2-1003(B)(10) or (11), within 12 months after acquisition by the operating entity and annually thereafter, on or before the anniversary date of the previous inspection; and
 - b. For vehicles temporarily exempt under R18-2-1003(B)(10) or (11), within 90 days after the vehicle becomes subject to testing, and annually thereafter, on or before the anniversary date of the previous inspection.
 5. For vehicles owned by or leased to a person having a valid fleet station permit, at least once within each 12-month period following any original registration or reregistration.
 6. For vehicles to be registered in area A or area B under conditions not specified in subsections (A)(1) through (5), within 90 days before registration.
 7. For vehicles registered outside area A and area B and used to commute to the driver's principal place of work located in area A or area B, upon vehicle registration or reregistration.
 8. For vehicles owned by persons subject to A.R.S. § 15-1444(C) or 15-1627(G), within 30 calendar days following the date of initial registration at the institution located in area A or area B and annually thereafter.
 9. For vehicles issued a certificate of exemption under R18-2-1023, within 15 calendar days after returning to Arizona, unless an official emissions inspection document from the out-of-state emissions inspection station was submitted with the request for exemption.
- B. Area A vehicles subject to the biennial test shall be inspected at the following times:
1. For vehicles not covered by a fleet station permit, within 90 days before the vehicle's emissions compliance expiration date.
 2. For government vehicles:
 - a. For vehicles not exempt under R18-2-1003(B)(10) or (11), within 12 months after acquisition by the operating entity, and biennially thereafter, on or before the anniversary date of the previous inspection; and
 - b. For vehicles temporarily exempt under R18-2-1003(B)(10) or (11), within 90 days after the vehicle becomes subject to testing, and biennially thereafter, on or before the anniversary date of the previous inspection.
 3. For vehicles owned by or leased to a person having a valid fleet station permit, at least once within each successive 24-month period following original registration.
 4. For vehicles registered outside area A but used to commute to the driver's principal place of work located in area A, upon vehicle registration and biennially thereafter.
 5. For vehicles owned by persons subject to A.R.S. § 15-1444(C) or 15-1627(G), within 30 days following the date of initial registration at the institution located in area A and biennially thereafter.
 6. For vehicles to be registered as area A vehicles under conditions not specified in subsections (B)(1) through (5), upon initial registration and within 90 days before the vehicle's emissions compliance expiration date thereafter.
 7. For vehicles issued a certificate of exemption under R18-2-1023, within 15 calendar days after returning to Arizona unless an official emissions inspection document indicating compliance with the emissions requirements from the out-of-state emissions inspection station is submitted with the request for exemption.
- C. Vehicles registered in the portion of area A within Pinal County are exempt from the requirements of this Article until January 1, 2001.
- D. Unless exempted by R18-2-1003(B), a used vehicle not registered as an area A or area B vehicle shall be inspected according to this Article before registration as an area A or area B vehicle.
- E. An area B vehicle being registered in area A is subject to the appropriate annual or biennial test from area A before registration even if the emissions compliance period for area B has not yet expired.
- F. New vehicles that are temporarily exempt from emission testing under R18-2-1003(B)(11), and subject to either an annual or biennial test, shall be tested before registration in the calendar year that exceeds the vehicle's model year by 5 years.
- G. Nothing in this Section shall be construed to waive a late registration fee because of failure to meet inspection requirements by the registration deadline, except that motor vehicles failing the initial or subsequent test shall not be subject to a penalty fee for late registration renewal if:
1. The initial test is accomplished before the emissions compliance expiration date, and
 2. The registration renewal is received by the Arizona Department of Transportation Motor Vehicle Division within 30 days of the initial test.
- H. A vehicle subject to subsection (A)(1), (A)(6), (B)(1) or (B)(6), may be submitted for a voluntary inspection more than 90 days before the emissions compliance expiration date on payment of the inspection fee. A voluntary inspection is not compliance with the registration or reregistration testing requirement under R18-2-1003.

Historical Note

Former Section R9-3-1005 repealed, new Section R9-3-1005 adopted effective January 31, 1976 (Supp. 76-1). Amended effective January 3, 1977 (Supp. 77-1). Amended effective March 2, 1978 (Supp. 78-2). Amended effective January 3, 1979 (Supp. 79-1). Amended effective February 20, 1980 (Supp. 80-1). Amended as an emergency effective January 2, 1981 pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-2). Former Section R9-3-1005 as amended effective February 20, 1980 and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1005 renumbered as Section R18-2-1005 and subsections (A) and (C) amended effective August 1, 1988 (Supp. 88-3). Amended effective September 19, 1990 (Supp. 90-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1006. Emissions Test Procedures

- A.o Each vehicle inspected at a state station shall be visually inspected before the emissions test for the following unsafe or unstable conditions:
 - 1.o A fuel leak that causes wetness or pooling of fuel;o
 - 2.o A continuous engine or transmission oil leak onto the floor;o
 - 3.o A continuous engine coolant leak onto the floor such that the engine has overheated or may overheat within a short time;o
 - 4.o The vehicle has a tire on a driving wheel with less than 2/32-inch tread, with metal protruberances, unmatched tire size, with obviously low tire pressure as determined by visual inspection, or any other condition that precludes a loaded test for reasons of personnel, equipment, or vehicle safety;o
 - 5. An exhaust pipe that does not exit the rear or side of the vehicle to allow for safe exhaust probe insertion. An exhaust pipe on a diesel-powered vehicle that does not allow for safe exhaust probe insertion and attachment of opacity meter sensor units;o
 - 6.o Improperly operating brakes;o
 - 7.o Any vehicle modification or mechanical condition that prevents dynamometer operation; and o
 - 8.o Any other condition deemed unsafe by the inspector, including loud internal engine noise or an obvious exhaust leak.o
- B.o A vehicle emissions inspection shall not be performed by an official emissions inspection station on any vehicle towing a heavily loaded trailer, carrying a heavy load, loaded with explosives, or loaded with any hazardous material not used as fuel for the vehicle.o
- C.o Any vehicle unsafe or otherwise untestable as determined by the visual inspection shall be rejected without an emissions test. Vehicle owners or drivers shall be notified of all unsafe conditions found on rejected vehicles. A fee shall not be charged if the vehicle is rejected at a state station. The emissions test shall not be conducted on a vehicle rejected for a safety reason or any other untestable condition until the cause for rejection is repaired.o
- D.o When conducting the emissions test procedure required by this Section, both of the following requirements shall be met:o

1. All vehicles shall be tested in the condition presented, unless rejected under subsection (A), (B), or (C). The vehicle's engine shall be operating at normal temperature and not be overheating as indicated by a gauge, warning light, or boiling radiator. All of the vehicle's accessories shall be turned off during testing.
 - 2.o Vehicles designed to operate with more than 1 fuel shall be tested on the fuel in use when the vehicle is presented for inspection.
- E. In area A, the inspection test procedures for all vehicles other than diesel-powered vehicles and vehicles held for resale by fleet-licensed motor vehicle dealers shall conform to the following:
- 1.o Vehicles manufactured with a model year of 1967 through 1980, all nonexempt vehicles with a GVWR greater than 8,500 pounds, and all reconstructed vehicles, except motorcycles and constant 4-wheel drive vehicles, are required to annually take and pass a loaded cruise test and a curb idle test, as follows:
 - a. Loaded cruise test. The vehicle's drive wheels shall be placed on a dynamometer and the vehicle shall be operated according to Table 1 of this Article, in drive for automatic transmission or 2nd or higher gear for manual transmission. Overdrive shall not be used for testing. All vehicles shall be driven by the inspector during testing. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized, or at the end of 90 seconds, whichever occurs 1st. After exhaust emissions have been recorded, engine speed shall be returned to idle for a curb idle test.
 - b.o Curb idle test. The test shall be performed with the vehicle in neutral for 1981 and newer vehicles. For 1980 and older vehicles, the test shall be performed in neutral, except that if the vehicle has an automatic transmission, drive shall be used. Engine RPM shall be within ± 100 RPM of the manufacturer's specified idle RPM. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized, or at the end of 90 seconds, whichever occurs 1st. A CO₂ plus CO reading of 6% or greater shall be registered to establish test validity. A CO₂ plus CO reading of less than 6% shall be proof of exhaust sample dilution and the vehicle shall be rejected from further emissions inspection until repaired.
 - 2.o Vehicles with a 1981 or newer model year and a GVWR of 8,500 pounds or less, except motorcycles, reconstructed vehicles, and until January 1, 2002, constant 4-wheel drive vehicles, are required to biennially take and pass a transient loaded emissions test and an evaporative system integrity test as follows:
 - a. The transient loaded emission test shall consist of 147 seconds of mass emission measurement using a constant volume sampler while the vehicle is driven by an inspector through a computer-monitored driving cycle on a dynamometer with inertial weight settings appropriate for the weight of the vehicle. The driving cycle shall include the acceleration, deceleration, and idle operating modes described in Table 4. The 147 second sequence may be ended earlier using fast pass or fast fail algorithms. A retest algorithm shall be used to determine if a test failure is due to insufficient vehicle preconditioning. As determined by the retest algorithm, up to 2 additional tests may be performed on a failing vehicle. Drive shall be used for automatic transmissions and 1st gear shall be used to begin for manual transmissions. Exhaust emissions concentrations in grams per mile for HC, CO, NO_x and CO₂ shall be recorded continuously beginning with the 1st second. The inspector shall reject from testing vehicles with audible or visible exhaust leaks.
 - b.o The evaporative system integrity test shall consist of the following steps in sequence:
 - i. Connect the test equipment to either the fuel tank venthose at the canister or the fuel tank filler neck. The gas cap shall be checked to ensure that it is properly tightened, and shall be tightened if necessary.
 - ii.o Pressurize the system to 14 ± 0.5 inches of water without exceeding 26 inches of water system pressure.
 - iii.o Close off the pressure source, seal the evaporative system, and monitor pressure decay for no more than 2 minutes.
3. For vehicles required to take a biennial emissions test, all testing and test equipment shall conform to "IM240 & Evap Technical Guidance", EPA420-R-98-010, EPA, August 1998, except that the transient driving cycle in Table 4 of this Article shall be used, incorporated by reference and on file with the Department and the Secretary of State. This incorporation by reference contains no future editions or amendments. A copy of this referenced material may be obtained at EPA's National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, MI 48105-2498. Exhaust sampling for vehicles required to take an annual emissions test shall comply with subsection (F)(6).
 4. All motorcycles and constant 4-wheel drive vehicles shall take and pass only a curb idle test according to subsection (F)(1).
 5. The emissions pass-fail determination for all vehicles tested under subsection (E) shall be made as follows:
 - a. Vehicles tested under subsection (E)(1) that do not exceed the loaded cruise mode or curb idle mode HC and CO emissions standards listed in Table 2 for the vehicle, comply with the emissions standards contained in Table 2. The loaded cruise test standards in Table 2 apply to fleet vehicles tested with the 2,500 RPM unloaded fast idle test under R18-2-1019(E).
 - b.o Vehicles tested under subsection (E)(2) shall meet the standards in Table 3 and pass the evaporative system integrity test as follows:
 - i.o Table 3 Standards. A vehicle shall meet either the composite standard for the whole test or the phase 2 standard for seconds 65 to 146. The Department may implement testing algorithms for fast pass, fast fail, or both, provided that the algorithms are reliable in accurately predicting the final outcome of the entire cycle. Vehicles not meeting either the composite or phase 2 standard shall fail the emissions test.
 - ii.o Evaporative System Integrity. A vehicle fails the emissions test if the evaporative system cannot maintain a system pressure above 8.0 inches of water for at least 2 minutes after being pressurized to 14 ± 0.5 inches of water. Additionally, vehicles fail the evaporative test if the canister is missing or damaged, if hoses or electrical connections are missing, routed incorrectly, or disconnected, according to the

vehicle emissions control information label, or if the gas cap is missing.

- c. Vehicles that operate on compressed natural gas comply with HC emissions standards if the HC emissions value multiplied by 0.19 does not exceed the applicable standard in subsection (E)(5)(a) or (b).
- d. Motorcycles and constant 4-wheel drive vehicles that do not exceed the curb idle mode HC and CO emissions standards listed in Table 2 on either the 1st curb idle test or the 2nd curb idle test shall comply with the emissions standards in Table 2.s
- e. A vehicle exceeding the applicable emissions standards for the tests described in subsections (E)(1) and (E)(2)(a) fail the emissions test and shall not be reinspected until a low-emissions tune-up is performed as described in R18-2-1010. A vehicle that fails the test described in subsection (E)(2)(b) shall not be reinspected until repaired as required in R18-2-1010(D)(1) and (2).s

6. Each nondiesel vehicle required to take an annual emission test in area A shall, at the time of the test, undergo a tampering inspection based on the original configuration of the vehicle as manufactured. The applicable emission system requirements shall be verified by the "VEHICLE EMISSION CONTROL INFORMATION" label under the hood. Vehicles that fail any portion of the tampering inspection shall be repaired according to R18-2-1009 before reinspection or shall provide the written statement required in R18-2-1008(B). "Original configuration" for foreign manufactured vehicles means the design and construction of a vehicle produced by the manufacturer for original entry and sale in the United States. The tampering inspection shall consist of the following:

- a. All nondiesel vehicles emission tested, except those with non-pressurized, vented systems, shall have a functional test of the gas cap to determine that cap leakage does not exceed 60 cubic centimeters of air per minute at a pressure of 30 inches of water gauge.s Nondiesel vehicles with non-pressurized, vented systems shall be checked for the presence of a properly fitting gas cap.s
- b.s For 1975 and newer model year vehicles:
 - i. A visual inspection to determine the presences of properly installed catalytic converters;
 - ii.s An examination to determine the presence of an operational air pump; and
 - iii.s A visual inspection to determine the presence of an operational positive crankcase ventilation system and evaporative control system.

B, the inspection test procedures for all vehicles other than diesel-powered vehicles shall consist of the following:

Area B vehicles with a model year of 1967 through 1980s shall take and pass only a curb idle test. The curb idle test shall be performed with the vehicle in drive for vehicles with automatic transmissions or in neutral for vehicles with manual transmissions. Engine RPM shall be within 100 RPM of the manufacturer's specified idle RPM.s HC and CO exhaust emissions shall be recorded after readings have stabilized, or at the end of 30 seconds, whichever occurs 1st. A CO₂ plus CO reading of 6% or greater shall be registered to establish test validity. A CO₂ plus CO reading less than 6% shall be proof of exhaust sample dilution and the vehicle shall be rejected for further emissions inspection until repaired. If the vehicle fails the curb idle test, and if permitted by the

vehicle operator, the vehicle shall be conditioned according to 1 of the following conditioning procedures:

- a. For the fast-idle conditioning procedure, the vehicles shall be conditioned by increasing engine speed to 2,500, \pm 300 RPM, for up to 30 seconds with the transmission in neutral. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized, or at the end of 30 seconds, whichever occurs 1st. The conditioning procedure standards in Table 2 are for diagnostic and advisory information only. After exhaust emissions are recorded, the engine speed shall be returned to curb idle for a 2nd idle test. The fast idle conditioning procedure may be used on a vehicle at state stations instead of the loaded conditioning procedure if any of the following occurs:
 - i.s The vehicle has a tire on a driving wheel with less than 2/32-inch tread, with metal protrusions, with visibly low tire pressure as determined by visual inspection, or any other condition that precludes loaded conditioning for reasons of personnel, equipment, or vehicle safety;s
 - ii.s The vehicle is driven by a person who, because of physical incapacity, is unable to yield the driver's seat to the vehicle emissions inspector;s
 - iii.s The driver refuses to yield the driver's seat to the vehicle emissions inspector; ors
 - iv.s The vehicle cannot be tested according to Table 1 because of the vehicle's inability to attain the speeds specified.s
 - b.s For the loaded conditioning procedure, for all vehicles other than motorcycles and constant 4-wheel-drive vehicles, the vehicle's drive wheels shall be placed on a dynamometer and the vehicles shall be operated according to Table 1, in drive for automatic transmission, or 2nd or higher gear for manual transmission. All front wheel drive vehicles shall be driven by the inspector. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized, or at the end of 30 seconds, whichever occurs 1st. The conditioning procedure standards in Table 2 are for diagnostic and advisory information only. After exhaust emissions are recorded, engine speed shall be returned to curb idle for a 2nd idle test.
 - c.s Following 1 of the conditioning procedures in subsection (F)(1)(a) or (b), the vehicle shall be retested according to the curb idle test procedure in subsection (F)(1).s
- 2.s Area B vehicles with a 1981 or newer model year, except motorcycles and constant 4-wheel drive vehicles, shall take and pass a loaded cruise test and curb idle test, as follows:
- a. Loaded Cruise Test. The vehicle's drive wheels shall be placed on a dynamometer and the vehicle shall be operated according to Table 1, in drive for automatic transmission or 2nd or higher gear for manual transmission. Overdrive shall not be used. All front wheel drive vehicles shall be driven by the inspector. Exhaust emissions, HC and CO concentrations, shall be recorded after readings have stabilized, or at the end of 90 seconds, whichever occurs 1st. After exhaust emissions have been recorded, engine speed shall be returned to idle for a curb idles test.s

- b.1 The Curb Idle Test. The test shall be performed with the vehicle in neutral. Engine RPM shall be within ± 100 RPM of the manufacturer's specified idle RPM. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized, or at the end of 90 seconds, whichever occurs 1st. A CO₂ plus CO reading of 6% or greater shall be registered to establish test validity. A CO₂ plus CO reading less than 6% shall be proof of exhaust sample dilution and the vehicle shall be rejected from further emissions inspection until repaired.1
3. All motorcycles and constant 4-wheel drive vehicles shall take and pass only a curb idle test according to subsection (F)(1). If the vehicle fails the curb idle test, and if permitted by the vehicle operator, the vehicle shall be conditioned according to the fast idle conditioning procedure required in subsection (F)(1)(a). Following conditioning, the vehicle shall be retested according to the curb idle test procedure in subsection (F)(1).
4. The emissions pass-fail determination shall be made as follows:
 - a.1 Vehicles with a model year of 1967 through 1980, except motorcycles and constant 4-wheel drive vehicles, that do not exceed the curb idle mode HC and CO emissions standards in Table 2 on either the 1st or 2nd curb idle test, comply with the minimum emission standards contained in Table 2.1
 - b. Vehicles with a 1981 or newer model year, except motorcycles and constant 4-wheel drive vehicles, that do not exceed the loaded cruise mode or curb idle mode HC and CO emissions standards listed in Table 2, comply with the minimum emissions standards in Table 2. The loaded cruise test standards specified in Table 2 shall apply to fleet vehicles tested with the 2,500 RPM unloaded fast idle test.1
 - c.1 Vehicles that operate on compressed natural gas comply with HC emissions standards if the HC emissions value multiplied by 0.19 does not exceed the applicable standard in subsection (F)(4)(a) or (b). 1
 - d. Motorcycles and constant 4-wheel drive vehicles that do not exceed the curb idle mode HC and CO emissions standards in Table 2 on either the 1st or 2nd curb idle test comply with the minimum emissions standards in Table 2.
 - e.1 Any vehicle exceeding the appropriate emissions standards fails the emissions test and shall have all low emissions tune-up as described in R18-2-10101 before reinspection.1
5. A nondiesel vehicle required to take an emissions test in area B shall at the time of the test undergo a tampering inspection based on the original configuration of the vehicle as manufactured, as follows: The applicable emission system requirements shall be verified by the "VEHICLE EMISSION CONTROL INFORMATION" label under the hood. Vehicles that fail any portion of the tampering inspection shall be repaired according to R18-2-1009 before reinspection or shall provide the written statement required in R18-2-1008(B). "Original configuration" for foreign manufactured vehicles means the design and construction of a vehicle produced by the manufacturer for original entry and sale in the United States. The tampering inspection shall consist of the following:
 - a. Vehicles that have pressure holding gas caps shall have a functional test of the gas cap to determine that cap leakage does not exceed 60 cubic centime-
 - ters of air per minute at a pressure of 30 inches of water gauge. Vehicles with non-sealing gas caps shall be checked for the presence of a properly fitting gas cap.
 - b.1 For 1975 and newer model year vehicles:
 - i. A visual inspection to determine the presence of properly installed catalytic converters; and1
 - ii.1 An examination to determine the presence of an operational air pump.1
 - 6.1 Exhaust sampling in area B shall comply with the following:
 - a. All CO and HC emission analyzers shall have water traps incorporated in the sampling lines. Sampling probes shall be capable of taking undiluted exhaust samples from a vehicle exhaust system.
 - b.1 All vehicles, other than diesel-powered vehicles,1 shall be inspected with NDIR analyzers capable of determining concentrations of CO and HC within the ranges and tolerances specified in Table 5.1
 - c.1 Vehicles with multiple exhaust pipes shall be inspected by collecting and averaging samples by 11 of the following methods:
 - i.1 Collect separate samples from each exhaust pipe and use the average concentration to determine the test result;1
 - ii.1 Use manifold exhaust probes to simultaneously1 sample approximately equal volumes from each pipe; or1
 - iii. Use manifold exhaust pipe adapters to collect approximately equal volume samples from each pipe. 1
 - G.1 The following apply to all testing under subsections (E) or (F):
 - 1.1 A rotary piston engine shall be inspected as a 4-stroke engine with 4 cylinders or less;1
 - 2.1 A turbine engine shall be inspected as a 4-stroke engine having more than 4 cylinders; and1
 3. A vehicle in which a diesel engine has been replaced with a gas engine shall be inspected as a gas-powered vehicle of the same vehicle model year. The vehicle shall not pass the inspection unless each catalytic converter, air pump, gas cap, and other emissions control device applicable to the vehicle model year and the same or more recent year engine configuration is properly installed and in operating condition.1
 - H.1 In area A, the inspection test procedure for a diesel-powered vehicle is as follows:
 - 1.1 A diesel-powered vehicle with a GVWR greater than 8,500 pounds shall be tested with a procedure that conforms to Society of Automotive Engineers standard J1667, February 1996, incorporated by reference and on file with the Department and the Secretary of State. This incorporation by reference contains no future editions or amendments. A copy of this referenced material may be obtained at: Society of Automotive Engineers, 400 Commonwealth Dr., Warrendale, PA 15096-0001. The procedure shall utilize the corrections for ambient test conditions in Appendix B of J1667 for all tests. The test results shall be reported as the percentage of smoke opacity. Emissions pass-fail determinations are as follows:
 - a.1 Vehicles powered by a 1991 or later model year diesel engine fail if the J1667 final test result is greater than 40%, unless the engine family is exempted from the 40% standard under subsection (H)(1)(e);1
 - b.1 Vehicles powered by a pre-1991 model year diesel engine fail if the J1667 final test result is greater

than 55%, unless the engine family is exempted from the 55% standard under subsection (H)(1)(e);

- c. The engine model year is determined by the emission control label. If the emission control label is missing, illegible, or incorrect, the test standard shall be 40%, unless a correct, legible emission control label replacement is attached to the vehicle within 30 days of the inspection;
- d. A vehicle that exceeds the opacity standard in subsection (H)(1)(a) or (b) fails the emission test. Before reinspection, the vehicle shall have a low emissions tune-up as described in R18-2-1010(G);
- e.s The Director shall exempt any engine family from the standards in subsection (H)(1)(a) or (b) if the engine manufacturer demonstrates either of the following:
 - i.s The engine family exhibits smoke opacity greater than the standard when in good operating condition and adjusted to the manufacturer's specifications. The Director shall identify a technologically appropriate less stringent standard based on a review of data obtained from engines in good operating condition and adjusted to manufacturer's specifications; or
 - ii. The engine family is exempted from an equivalent standard based on J1667 by the executive officer of the California Air Resources Board (CARB). The Director shall allow the engine family to comply with any technologically appropriate less stringent standard identified by the executive officer of CARB; and
- f.s A demonstration under subsection (H)(1)(e)(i) shall be based on data from at least 3 vehicles. Data from official inspections under subsection (H)(1) showing that vehicles in the engine family meet the standard may be used to rebut the demonstration. The Director shall implement any new standard resulting from each exemption as soon as practicable for all subsequent tests and provide notice at all affected test stations and fleets.

2.s A diesel-powered vehicle with a GVWR greater than 4,000 pounds and less than or equal to 8,500 pounds shall be tested by a loaded dynamometer test by applying a single load of 30 HP, \pm 2 HP, while operated at 50 MPH. A diesel-powered vehicle with a GVWR of 4,000 pounds or less shall be tested by a loaded dynamometer test by applying a single load of between 6.4 - 8.4 HP while operated at 30 MPH. For all diesel-powered vehicles with a GVWR less than or equal to 8,500 pounds:

- a. The emissions pass-fail determination shall be made as follows:
 - i.s The opacity reading for a period of 10 consecutive seconds with the engine under applicable loading shall be compared to the opacity standard in R18-2-1030(B). Vehicles that do not exceed the opacity standards in R18-2-1030(B) comply with the minimum emission standards.
 - ii. A vehicle that exceeds the appropriate standard fails the emission test. Before reinspection, the vehicle shall have a low emissions tune-up as described in R18-2-1010.

Exhaust sampling shall comply with the following:

- i. For a diesel-powered vehicle equipped with multiple pipes, separate measurements shall be made on each exhaust pipe. The reading taken

from the exhaust pipe that has the highest opacity reading shall be used for comparison with the appropriate emission standard.

- ii.s Vehicles shall be inspected with a full-flow, direct reading, continuous reading light extinction opacity meter using a collimated light source and photo-electric cell, accurate to a value within \pm 5% of filter value.s

1.s In area B, the inspection test procedure for a diesel-powered vehicle is as follows:

1. A diesel-powered vehicle with a GVWR greater than 26,000 pounds or having tandem axles shall be tested according to 1 of the following methods:

- a.s The vehicle shall be tested on a chassis dynamometer beginning with no power absorption by selecting a gear ratio that produces a maximum vehicle speed of 30-35 MPH at governed or maximum rated RPM. If the vehicle has a manual transmission or an automatic transmission with individual gear selection, the engine shall be operated at governed or maximum rated engine RPM, at normal operating temperature under a power absorption load applied to the dynamometer until the loading reduces the engine RPM to 80% of the governed speed at wide-open throttle position. If the vehicle has an automatic transmission and automatic gear kickdown, the engine shall be loaded to a speed just above the kickdown speed or 80% of the governed speed, whichever is greater. If the chassis dynamometer does not have enough horsepower absorptions capability to lug the engine down to these speeds, the vehicle's brakes may be used to assist the dynamometer.

- b. If a chassis dynamometer is not available, the vehicle shall be tested by being lugged by its own brakes by selecting a gear ratio that produces a maximum speed of 10-15 MPH at governed engine RPM or maximum rated RPM and then loading the engine by applying the brakes until the engine RPM is lugged down to 80% of the governed or maximum rated RPM at wide-open throttle position. If the vehicle does not have a tachometer, the vehicle may be loaded to 80% of governed or maximum rated speed.

2.s A diesel-powered vehicle without tandem axles and having a GVWR greater than 10,500 pounds and less than or equal to 26,000 pounds shall be tested according to 1 of the following methods:

- a.s The vehicle shall be tested on a chassis dynamometer beginning with no power absorption by selecting a gear ratio that produces a maximum vehicle speed of 30-35 MPH at governed or maximum rated RPM. If the vehicle has a manual transmission or an automatic transmission and individual gear selection, the engine shall be operated at governed or maximum rated engine RPM, at normal operating temperature under a power absorption load applied to the dynamometer until such loading reduces the engine RPM to 80% of the governed speed at wide-open throttle position. If the vehicle has an automatic transmission and automatic gear kickdown, the engine shall be loaded to a speed just above the kickdown speed or 80% of governed speed, whichever is greater. If the chassis dynamometer does not have enough horsepower absorption capability to lug the engine

down to these speeds, the vehicle's brakes may be used to assist the dynamometer;

- b.o The vehicle shall be tested by applying a single load of 30 HP, \pm 2 HP, while operated at 50 MPH; or
 - c. The vehicle shall be tested by being lugged by its own brakes by selecting a gear ratio that produces a maximum speed of 10-15 MPH at governed engine RPM or maximum rated RPM and then loading the engine by applying the brakes until the engine RPM is lugged down to 80% of the governed or maximum rated RPM at wide-open throttle position. If the vehicle does not have a tachometer, the vehicle may be loaded to 80% of governed or maximum rated speed.
- 3. A diesel-powered vehicle with a GVWR of greater than 4,000 pounds and less than or equal to 10,500 pounds shall be tested by a loaded dynamometer test by applying a single load of 30 HP, \pm 2 HP, while operated at 50 MPH.o
 - 4. A diesel-powered vehicle with a GVWR of 4,000 pounds or less shall be tested by a loaded dynamometer test by applying a single load of between 6.4 - 8.4 HP while operated at 30 MPH.o
 - 5. The emissions pass-fail determination shall be performed:o
 - a. The opacity reading during a period of 10 consecutive seconds with the engine under applicable loading specified in subsections (H)(1) through (4) shall be compared to the opacity standard specified in R18-2-1030(B). Vehicles that do not exceed the opacity standards in R18-2-1030(B) comply with the minimum emission standards.
 - b.o A vehicle that exceeds the standard in R18-2-1030(B) fails the emission test. Before reinspection, the vehicle shall have a low emissions tune-up as described in R18-2-1010.o
 - 6. Exhaust sampling shall comply with the following:o
 - a. For a diesel-powered vehicle equipped with multiple exhaust pipes, separate measurements shall be made on each exhaust pipe. The reading taken from the exhaust pipe that has the highest opacity reading shall be used for comparison with the standard in R18-2-1030(B).
 - b.o Vehicles shall be inspected with either a full-flow or sampling-type opacity meter. The opacity meter shall be direct reading, continuous reading light extinction-type using a collimated light source and photo-electric cell, accurate to a value within \pm 5% of filter value.o
- J. Diesel-powered area A or B vehicles that are equipped with catalytic converters or PCV systems shall undergo a tampering inspection for those devices under subsection (E)(6).
 - K.o Diesel-powered area B vehicles that are equipped with catalytic converters shall undergo a tampering inspection for those devices under subsection (F)(5).o

Historical Note

Former Section R9-3-1006 repealed, new Section R9-3-1006 adopted effective January 13, 1976 (Supp. 76-1).
Amended effective November 1, 1976 (Supp. 76-5).
Amended effective March 2, 1978 (Supp. 78-2).
Amended effective January 3, 1979 (Supp. 79-1).
Amended effective February 20, 1980 (Supp. 80-1).
Former Section R9-3-1006 repealed, new Section R9-3-1006 adopted as an emergency effective January 2, 1981 pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1006 as amended

effective February 20, 1980 repealed and a new Section R9-3-1006 adopted as an emergency effective January 2, 1981 now adopted and amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1006 renumbered as Section R18-2-1006 and subsections (A), (C) and (D) amended effective August 1, 1988 (Supp. 88-3). Amended effective September 19, 1990 (Supp. 90-3).o
Amended effective November 14, 1994 (Supp. 94-4).
Amended effective October 15, 1998 (Supp. 98-4).
Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4). Amended by final rulemaking at 6 A.A.R. 2722, effective June 28, 2000 (Supp. 00-2).o

R18-2-1007. Evidence of Meeting State Inspection Requirements

- A. Vehicles required to be inspected under this Article shall pass inspection before registration by meeting the requirements of R18-2-1006, unless waived under R18-2-1008.
- B. The MVD or its agent may use the MVD motor vehicles emissions database, if available, as evidence that a vehicle complies with the requirements of this Article.
- C. If the MVD motor vehicles emissions database is not available, the MVD or its agent shall accept any of the following documents, when complete, unaltered, and dated no more than 90 days before registration expiration date, as evidence that a vehicle complies with the requirements of this Article unless the MVD or its agent has reason to believe it is false. Documents accompanying a late registration may be dated subsequent to the registration expiration date:
 - 1. Certificate of compliance,
 - 2. Certificate of waiver (except from auto dealers licensed to sell used motor vehicles under Title 28),
 - 3. Certificate of exemption, or
 - 4. Director's certificate,
 - 5. The upper section of the vehicle inspection report with "PASS" in the final results block.
- D. Complete and unaltered certificates of inspection dated within 12 months of registration for annually tested vehicles and 24 months for biennially tested vehicles shall be accepted by the MVD or its agent as evidence that a vehicle is in compliance with the requirements of this Article unless the MVD or its agent has reason to believe it is false.
- E. Documents listed in subsection (C) and originating in area B are not acceptable for meeting the inspection requirements in area A.
- F. Government vehicles for which only weight fees are paid shall be registered without evidence of inspection.

Historical Note

Former Section R9-3-1007 repealed, new Section R9-3-1007 adopted effective January 13, 1976 (Supp. 76-1).
Former Section R9-3-1007 repealed, new Section R9-3-1007 adopted effective January 3, 1977 (Supp. 77-1).
Amended effective February 20, 1980 (Supp. 80-1).
Amended effective January 1, 1986 (Supp. 85-6). Former Section R9-3-1007 renumbered without change as Section R18-2-1007 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rule-making at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1008. Procedure for Issuing Certificates of Waiver

A. Unless prohibited under subsection (C), (D), or (E), a certificate of waiver shall be issued subsequent to reinspection by a state inspector at a state or Department station to a vehicle that

failed the emissions inspection or the emissions and tampering inspections when it is determined by repair receipts, emissions test results, evidence of repairs performed, underhood verification, or similar evidence that the requirements of R18-2-1009 and R18-2-1010 have been met, or for emissions failures only, any further repairs within the repair cost limit would be ineffective. A waiver may be denied if a waiver request is based upon repair estimates and the state inspector demonstrates that a recognized repair facility can repair or improve the vehicle's test readings within the repair cost limit.

B. A certificate of waiver may be issued to a vehicle failing the tampering inspection if the vehicle owner provides to the Director a written statement from an automobile parts or repair business that an emission control device necessary to repair the tampering is not available and cannot be obtained from any usual source of supply, and if all requirements of R18-2-1008(A) have been met. All written statements are subject to verification for authenticity and accuracy by the Department. The Department may deny a certificate of waiver if the state inspector has any reason to believe the written statement is false or a usual source of supply exists and the device necessary to repair the tampering is available. Certificates of waiver for tampered vehicles may be issued conditionally for a specified period, not to exceed 90 days, that allows sufficient time for the procurement and installation of a proper emissions control device. A receipt or bill from a vehicle repair facility or automobile parts store shall be an acceptable proof of purchase. Before the end of the specified time period, the vehicle owner shall present to the Director proof of purchase and installation of the device. The Department shall track all issued conditional certificates of waiver and if no proof of purchase and installation is received before the end of the specified time period, the Director shall forward to the Department of Motor Vehicles an order to cancel the vehicle's registration.

C. The Director shall not issue a waiver to a vehicle that has failed the emissions test due to the catalytic converter system. A vehicle shall have failed the emissions test due to the catalytic converter system if:

1. The converter's oxidation efficiency, as measured by the Catalyst Efficiency Test Procedure in R18-2-1031(A), is less than 75%; and
2. No engine or fuel system malfunctions exist that would prevent the proper operation of a catalytic converter.

D. The Director shall not issue a waiver to a vehicle failing the emission test with an HC, CO, NOx, or opacity emission level greater than 2 times the pass-fail standard in R18-2-1006, unless the vehicle is repaired so that each emission level is less than 2 times the pass-fail standard.

E. After January 1, 1997, the Director shall not issue a certificate of waiver to the same vehicle more than once.

F. The fee for a certificate of waiver under this Section shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state for administering and enforcing the provisions of this Article for issuance of certificates of waiver under this Section. The fee shall be payable directly to the Department of Environmental Quality at the time the certificate of waiver is issued.

Historical Note

Former Section R9-3-1008 repealed, new Section R9-3-1008 adopted effective January 13, 1976 (Supp. 76-1).

Former R9-3-1008 repealed, new Section R9-3-1008 adopted effective January 3, 1977 (Supp. 77-1).

Amended effective March 2, 1978 (Supp. 78-2).

Amended effective January 3, 1979 (Supp. 79-1).

Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days

(Supp. 81-1). Former Section R9-3-1008 as amended effective January 3, 1979, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended subsection (A) and added subsection (D) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1008 renumbered as Section R18-2-1008 and amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rule-making at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1009. Tampering Repair Requirements

- A. If a vehicle fails the visual inspection for properly installed catalytic converters, the converters shall be replaced with new or reconditioned OEM converters or equivalent new aftermarket converters. The Department shall provide names of acceptable aftermarket converters at the time of inspection on the repair requirement list.
- B. If a vehicle fails the functional gas cap pressure test described in R18-2-1006(E)(6)(a) or (F)(5)(a), the gas cap shall be replaced with one that meets those specifications. If a vehicle designed with a vented system fails a visual inspection for the presence of a gas cap, a properly fitting gas cap shall be installed on the vehicle.
- C. If a vehicle fails the visual inspection for the presence of an operational air pump, a new, used, or reconditioned, operational air pump shall be properly installed on the vehicle.
- D. If a vehicle fails the visual inspection for the presence or malfunction of the positive crankcase ventilation system, the system shall be repaired or replaced with OEM or equivalent aftermarket parts.
- E. If a vehicle fails the visual inspection for the presence or malfunction of the evaporative control system, the system shall be repaired or replaced with OEM or equivalent aftermarket parts.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).
Repealed effective January 3, 1977 (Supp. 77-1). New
Section R9-3-1009 adopted effective January 1, 1986
(Supp. 85-6). Amended effective January 1, 1987, filed
December 31, 1986 (Supp. 86-6). Former Section R9-3-
1009 renumbered without change as Section R18-2-1009
(Supp. 88-3). Amended effective November 14, 1994
(Supp. 94-4). Amended by final rulemaking at 6 A.A.R.
382, effective December 20, 1999 (Supp. 99-4).

R18-2-1010. Low Emissions Tune-up, Emissions and Evaporative System Repair

A. A low emissions tune-up on nondiesel-powered vehicles consists of the following procedures:

1. Emissions Failure Diagnosis. For computer-controlled vehicles, the on-board-diagnostics shall be accessed and any stored trouble codes recorded. The following instruments or equipment are required to complete a low emissions tune-up: tachometer, timing light, or an engine analyzer or oscilloscope, and if specified by the manufacturer, a HC/CO NDIR analyzer to make final A/F adjustments. Final adjustment shall be made on the vehicle engine only after the engine is at normal operating temperature. All adjustments shall be made according to the manufacturer's specifications and procedures.
2. Inspection of Air Cleaner, Choke, and Air Intake System. A dirty or plugged air cleaner, stuck choke, or restricted air intake system shall be replaced or repaired as required.

3. Dwell and Basic Timing Check. Dwell and basic engine timing shall be checked and adjusted, if necessary, according to manufacturer's specifications.
 4. Inspection of PCV Valve. The PCV valve shall be checked to ensure that it is the type recommended by the manufacturer and is correctly operating. Free flow through the PCV system passages and hoses shall be verified. Repair or replace as required.
 5. Inspection of Vacuum Hoses. The vacuum hoses shall be inspected for leaks, obstruction, and proper routing and connection. Repair or replace as required.
 6. Perform a visual inspection for leaking fuel lines or system components. Repair or replace as required.
 7. Idle Speed and A/F Mixture Check. The idle speed and A/F mixture shall be checked and adjusted according to manufacturer's specifications and procedures. If the vehicle is equipped with a fuel injection system or an alternate fuel (LPG or LNG), the manufacturer's recommended adjustment procedure shall be followed.
- B. A vehicle that fails reinspection does not qualify for a waiver unless a low emissions tune-up and diagnosis is performed on the vehicle.
- C. If the maximum required repair cost in subsection (E) or (F) is not exceeded after a low emissions tune-up described in subsection (A), then the following procedures apply:
1. If a vehicle fails the CO only, the vehicle shall be checked for proper canister purge system operation, high float setting, leaky power valve, faulty or worn needles, seats, jets or improper jet size. If applicable, the following shall also be checked: computer, engine and computer sensors, engine solenoids, engine thermostats, engine switches, coolant switches, throttle body or port fuel injection system, fuel injectors, fuel lines (routing and integrity), air in fuel system (for example, line, pump), fuel return system, injection pump, fuel injection timing, routing of vacuum hoses and electrical connections. Repair or replace as required.
 2. If a vehicle fails HC, or HC and CO, the vehicle shall be checked for faulty spark plugs and faulty, open, crossed, or disconnected plug wires, distributor module, vacuum hose routing and electrical connections, distributor component malfunctions including vacuum advance, faulty points or condenser, and distributor cap crossfire, catalytic converter efficiency, and catalytic converter air supply, vacuum leaks at intake manifold, carburetor base gasket, EGR, and vacuum-operated components. Repair or replace as required.
 3. If a vehicle fails NOx, the vehicle shall be checked for removed, plugged, or malfunctioning EGR valve, exhaust gas ports, lines, and passages, EGR valve electrical and vacuum control circuitry, components, and computer control, as applicable, above normal engine operating temperature, proper air management, lean A/F mixture, catalytic converter efficiency and over advanced off-idle timing. Repair or replace as required.
- D. For Evaporative System Failures, the following procedures apply:
1. If a vehicle fails the evaporative system integrity test, the vehicle shall be checked for leaking or disconnected vapor hoses, line, gas cap, and fuel tank.
 2. If a vehicle fails a visual inspection of the evaporative system, the vehicle shall be checked for a missing or damaged canister, canister electrical and vacuum control circuits and components, disconnected, damaged, mis-routed or plugged hoses, and damaged or missing purge valves. Repair or replace as necessary.
- E. The maximum required repair cost for a vehicle in area A, not including costs to repair the vehicle for failing an evaporative system integrity test due to tampering, or other tampering repair costs, is:
1. For a diesel-powered vehicle with a GVWR greater than 26,000 pounds or a diesel-powered vehicle with tandem axles, \$500; and
 2. For a vehicle that is not a diesel-powered vehicle with a GVWR greater than 26,000 pounds and not a diesel-powered vehicle with tandem axles:
 - a. Two hundred dollars for a vehicle manufactured in or before the 1974 model year;
 - b. Three hundred dollars for a vehicle manufactured in the 1975 through 1979 model years; and
 - c. Four hundred and fifty dollars for a vehicle manufactured in or after the 1980 model year.
 3. Subsection (E) does not prevent a vehicle owner from authorizing or performing more than the required repairs. A vehicle operator who has a vehicle reinspected shall have repair receipts available when requesting a certificate of waiver.
- F. The maximum required repair cost for vehicles in area B, not including tampering repair costs, is:
1. For a diesel-powered vehicle with a GVWR greater than 26,000 pounds or a diesel-powered vehicle with tandem axles, \$300; and
 2. For a vehicle that is not a diesel-powered vehicle with a GVWR greater than 26,000 pounds and not a diesel-powered vehicle with tandem axles:
 - a. Fifty dollars for a vehicle manufactured in or before the 1974 model year;
 - b. Two hundred dollars for a vehicle manufactured in the 1975 through 1979 model years; and
 - c. Three hundred dollars for a vehicle manufactured in or after the 1980 model year.
 3. Subsection (F) does not prevent a vehicle owner from authorizing or performing more than the required repairs. A vehicle operator who has a vehicle reinspected shall have repair receipts available when requesting a certificate of waiver.
- G. A low emissions tune-up on a diesel-powered vehicle consists of the following procedures:
1. Inspect for dirty or plugged air cleaner, or restricted air intake system. Repair or replace as required.
 2. Check fuel injection system timing according to manufacturer's specifications. Adjust as required.
 3. Check for fuel injector fouling, leaking, or mismatch. Repair or replace as required.
 4. Check fuel pump and air-fuel ratio control according to manufacturer's specifications. Adjust as required.
 5. If the vehicle fails the J1667 procedure, check smoke-limiting devices, if any, including the aneroid valve and puff limiter. Repair or replace as required.
- H. Any available warranty coverage for a vehicle shall be used to obtain needed repairs before an expenditure can be counted toward the cost limits in subsections (E) and (F). If the operator of a vehicle within the age and mileage coverage of section 207(b) of the Clean Air Act presents a written denial of warranty coverage from the manufacturer or authorized dealer, warranty coverage is not considered available under this subsection.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1). Former Section R9-3-1010 repealed, new Section R9-3-1010 adopted effective January 3, 1977 (Supp. 77-1). Amended effective March 2, 1978 (Supp. 78-2).

Amended effective January 3, 1979 (Supp. 79-1).
Amended effective February 20, 1980 (Supp. 80-1).
Amended as an emergency effective January 2, 1981,
pursuant to A.R.S. § 41-1003, valid for only 90 days
(Supp. 81-1). Former Section R9-3-1010 as amended
effective February 20, 1980, and amended as an emer-
gency effective January 2, 1981, now amended effective
April 15, 1981 (Supp. 81-2). Amended effective January
1, 1986 (Supp. 85-6). Amended effective January 1,
1987, filed December 31, 1986 (Supp. 86-6). Former Sec-
tion R9-3-1010 renumbered as Section R18-2-1010 and
subsection (D) amended effective August 1, 1988 (Supp.
88-3). Amended effective November 14, 1994
(Supp. 94-4). Amended effective October 15, 1998
(Supp. 98-4). Amended by final rulemaking at 6 A.A.R.
382, effective December 20, 1999 (Supp. 99-4).

R18-2-1011. Vehicle Inspection Report

- A. A vehicle inspected at a state station shall be provided a serially numbered vehicle inspection report of a design approved by the Director that contains the following information at a minimum:
1. License plate number;
 2. Vehicle identification number;
 3. Model year of vehicle;
 4. Make of vehicle;
 5. Style of vehicle;
 6. Type of fuel;
 7. Odometer reading to the nearest 1000 miles, truncated;
 8. Emissions standards for idle and loaded cruise modes, if applicable;
 9. Emissions measurements during idle and loaded cruise modes, if applicable;
 10. Opacity measurements and standards, if applicable;
 11. Emission standards and measurements for the transient loaded test, and the evaporative system integrity test, if applicable;
 12. Tampering inspection results;
 13. Repair requirements;
 14. Final test results;
 15. Repairs performed;
 16. Cost of emissions related repairs;
 17. Cost of tampering related repairs;
 18. Name, address, and telephone number of the business or person making repairs;
 19. Signature and certification number of person certifying repairs;
 20. Date of inspection;
 21. Test results of the previous inspection if the inspection is a reinspection;
 22. Inspection station, lane locators; and
 23. Test number and time of test.
- B. A vehicle failing the initial inspection shall receive an inspection report supplement approved by the Department containing, at a minimum, the following:
1. Diagnostic and tampering information including acceptable replacement units, and
 2. Applicable maximum repair costs.
- C. The inspection report shall provide a 3-inch by 5-inch tear-out section that may be used as a certificate of compliance for vehicles passing the inspection or as a certificate of waiver, if applicable.
1. The tear-out section shall be a certificate of compliance when the word "compliance" appears in the appropriate location on the printout.
 2. The tear-out section shall be a certificate of waiver when the word "waiver" appears in the appropriate location on the printout.
 3. The tear-out section shall contain all of the following information:
 - a. License plate number,
 - b. Vehicle identification number,
 - c. Final results,
 - d. Serial number of the inspection report,
 - e. Date of inspection,
 - f. Model year,
 - g. Make,
 - h. Date of initial inspection, and
 - i. Inspection fee.
- D. At the time of registration or reregistration, the certificate of compliance or certificate of waiver may be submitted to the Arizona Department of Transportation Motor Vehicle Division as evidence of meeting the requirements of this Article.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1). Former Section R9-3-1011 repealed, new Section R9-3-1011 adopted effective January 3, 1977 (Supp. 77-1). Amended effective January 3, 1979 (Supp. 79-1). Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1011 as amended effective January 3, 1979, and as amended as an emergency effective January 2, 1981 now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended subsections (A) and (B) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1011 renumbered as Section R18-2-1011 and amended by removing subsection (E) effective August 1, 1988 (Supp. 88-3). Amended effective September 19, 1990 (Supp. 90-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1012. Inspection Procedures and Fee

- A. A vehicle that is inspected by a state station must be accompanied by a document such as a registration renewal notice, registration, certificate of title, or bill of sale that identifies the vehicle by make, model year, identification number, and license plate if applicable.
- B. If the registration renewal notice is used as the accompanying document, it shall be stamped by the test lane inspector. If the vehicle inspection report from the previous test is used, it shall be retained by the test lane inspector.
- C. The fees for emissions inspections at a state station shall be specified in the contract between the contractor and the state of Arizona according to A.R.S. § 49-543, and shall include the full costs of the vehicle emissions inspection program, including administration, implementation, and enforcement. Each fee is payable directly to the contractor at the time and place of inspection in cash or by check approved by the contractor. Fees collected by the contractor to defray the costs of the inspection shall be retained by the contractor. The fee amount collected to defray the costs of the administration, implementation, and enforcement of the vehicle emissions inspection program shall be remitted to the Department. Amounts collected shall be recorded and reported to the Department monthly. The contractor shall submit to the state of Arizona on a monthly basis, by the 10th day of each month, a report setting forth the number of inspections performed and the amount of fees collected.
- D. Subsequent inspections, if needed, shall be treated by the state and the contractor in the same manner as an initial inspection and reinspection, providing for a free reinspection according to R18-2-1013, if needed, following a paid inspection. The fee for each paid reinspection shall be the full fee as provided for in the contract with the contractor.
- E. State station emissions inspectors shall not recommend repairs or repair facilities.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1). Former Section R9-3-1012 repealed, new Section R9-3-1012 adopted effective January 3, 1977 (Supp. 77-1). Amended effective January 3, 1979 (Supp. 79-1). Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1012 as amended effective January 3, 1979, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended subsections (A) and (D) effective November 9, 1982 (Supp. 82-6). Amended effective January 1, 1986 (Supp. 85-6). Former Section R9-3-1012 renumbered as Section R18-2-1012 and amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1013. Reinspections

- A. A vehicle failing the initial inspection or any subsequent paid inspection is entitled to 1 reinspection at no additional charge under the following conditions:
1. The vehicle is presented for inspection within 60 calendar days of the initial or any subsequent paid inspection, if the vehicle operator presents the vehicle inspection report from the previous inspection, indicating the itemization of the repairs performed.
 2. Emissions-related repairs or adjustments and any tampering repairs have been made.
 3. The vehicle is accompanied by the entire vehicle inspection report from the initial or subsequent inspection with the following information filled in on the reverse side:
 - a. Emissions-related and tampering-related repairs made;
 - b. Cost of emissions related and tampering related repairs as reflected by receipts or bills;
 - c. Name, address, telephone number, and type of facility making repairs;
 - d. Signature of person certifying the repairs;
 - e. Date of repairs; and
 - f. The state certification number of the technician making repairs, if applicable.
- B. A vehicle shall be retested after repair for any portion of the inspection the vehicle failed on the previous test to determine if the repairs are effective. To the extent that repair to correct a previous failure could cause failure of another portion of the test, that portion shall also be retested. Evaporative system repairs shall trigger an exhaust emissions retest.
- C. A vehicle failing the reinspection shall be provided a vehicle inspection report and a vehicle inspection report supplement.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1). Former Section R9-3-1013 repealed, new Section R9-3-1013 adopted effective January 3, 1977 (Supp. 77-1). Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1013 adopted effective January 3, 1977, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1013 renumbered as Section R18-2-1013 and amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

R18-2-1016. Licensing of Inspectors

A. The Department shall license a person as a vehicle emissions inspector if the applicant passes a practical and a written examination with a score equal to or greater than 80% in the following areas:

1. For nondiesel-powered fleet vehicle emissions inspectors:
 - a. Equipment used in the inspection and the control of emissions;
 - b. Types of emission inspection failures;
 - c. Corrective procedures for excessive HC emissions;
 - d. Corrective procedures for excessive CO emissions;
 - e. Corrective procedures for excessive NOx emissions, for inspectors in area A;
 - f. Proper fuel system adjustment procedures;
 - g. Computerized engine control systems; and
 - h. Regulations governing fleet stations;

2. For diesel-powered fleet vehicle emissions inspectors:
 - a. Equipment used in the inspection and the control of opacity and emissions;
 - b. Corrective procedures for excessive opacity;
 - c. Proper fuel injection system adjustment procedures;
 - d. Proper use of tools required by the vehicle manufacturer for field setting of fuel injectors, inlet and exhaust valve clearance, governors, and throttle controls;
 - e. Computerized engine control systems; and
 - f. Regulations governing fleet stations;

3. For state station vehicle emission inspectors:
 - a. Air pollution causes and effects;
 - b. Purpose, function, and goals of the inspection program;
 - c. State inspection regulations;
 - d. Test procedures and rationale for their design;
 - e. Emission control devices, configuration, and inspection;
 - f. Test equipment operation, calibration, and maintenance;
 - g. Proficiency in driving the transient test cycle in Table 4;
 - h. Quality control procedures;
 - i. Public relations; and
 - j. Safety and health issues related to the inspection process.

4. For the practical portion of the examination an applicant shall demonstrate the ability to conduct a proper emissions inspection, including proper use of equipment and procedures, to pass. If an inspector fails to demonstrate such ability in an audit, either covert or overt, the inspector's license shall be suspended. The suspended licensee shall demonstrate to the Department the skills required by this subsection within 30 days of suspension or such license shall be revoked.

B. If an applicant for a nondiesel-powered vehicle emissions inspector license fails the written examination, the applicant shall successfully complete the vehicle emissions inspector state training program before reexamination for licensure.

C. Applications may be obtained from the Department. The application shall contain the following:

1. The type of license requested;
2. The applicant's name;
3. The applicant's home address;
4. The applicant's phone number;
5. The name of the applicant's employer;
6. The phone number of the applicant's employer;
7. The applicant's signature; and
8. The date of the license request.

D. All completed applications shall be returned to the Department.

E. Licenses issued to vehicle emissions inspectors shall be renewed annually on or before the expiration date. An inspector whose license has expired may not inspect vehicles.

F. Applications for renewal of vehicle emissions fleet inspector's licenses shall be submitted within 30 days before the current license expiration date.

G. The Department may suspend, revoke, or refuse to renew a license if the licensee has violated any provision of A.R.S. Title 49, Chapter 3, Article 5 or any provision of this Article or fails to continue to demonstrate proficiency to the Department as required in subsection (A).

H. A vehicle emissions inspector shall notify the Department of any change in employment status due to retirement, resignation, or termination within 7 days of such change.

I. The Department shall assign a single, unique, nontransferable inspector's number to each vehicle emissions inspector.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).

Amended effective January 3, 1977 (Supp. 77-1).

Amended effective March 2, 1978 (Supp. 78-2).

Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1016 as amended effective March 2, 1978, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1016 renumbered as Section R18-2-1016 and subsection (G) amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1017. Inspection of Government Vehicles

A. Inspection of government vehicles operated in areas A and B shall be conducted as follows:

1. At a licensed fleet station operated by the government entity;
2. At a state station upon payment of the fee;
3. At a state station upon payment of the contracted fee, either singly or in combination with other government fleet operators.

B. All government vehicles except federally owned vehicles that are excluded from the definition of motor vehicles under 40 CFR 85.1703, shall be inspected according to this Article and shall have a Government Vehicle Certificate of Inspection affixed to the vehicle if in compliance with state inspection requirements.

1. The vehicle emissions inspector performing the inspection shall punch out the appropriate year and month on the Government Vehicle Certificate of Inspection to designate the date of the vehicle's next annual or biennial inspection. The vehicle emission inspector, at the time of inspection, shall record the serial number of the Government Vehicle Certificate of Inspection on the vehicle inspection report. If the vehicle emission inspection is performed at a fleet station, the emission inspector, at the time of inspection, shall record the serial number in the block labeled "Certificate of Inspection No." on the "Fleet Vehicle Inspection Report/Monthly Summary" (Form IPS 4008). Presence of a current Government Vehicle Certificate of Inspection indicates a government vehicle has met the state of Arizona emission inspection requirements.
2. Government vehicles, with the exception of motorcycles and undercover law enforcement vehicles shall have the Government Vehicle Certificate of Inspection affixed to the lower left side of the rear window as determined from a position facing the window, from outside the vehicle. If a vehicle does not have a rear window, the Government Vehicle Certificate of Inspection shall be affixed to the lower left corner of the windshield as determined from the driver's position.
3. Government motorcycles shall have the Government Vehicle Certificate of Inspection affixed to the lower left-hand corner of the windscreen as determined from the driver's position. If the Government Vehicle Certificate of Inspection cannot be affixed to the lower left-hand corner of the windscreen, the Government Vehicle Certifi-

cate of Inspection may be affixed to a visible position on the front or left side of the left front fork of the motorcycle. The fork shall be determined from the driver's position.

C. The Government Vehicle Certificate of Inspection shall be purchased from the Department in lots of 25.

1. The fee for a certificate of inspection shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state of administering and enforcing the provisions of this Article as they apply to issuance of certificates of inspections. Payment for certificates shall be included with an application for certificates. Checks shall be made payable to the Department of Environmental Quality.
2. Only the Department may sell or otherwise transfer certificates of inspection.

D. All Government Vehicle Certificates of Inspection shall be designed, issued, and administered to ensure compliance with this Article. The Department shall be the only source of supply for Government Vehicle Certificates of Inspection.

E. Government entity fleet stations shall inspect the fleet vehicles according to R18-2-1019 except that a government vehicle certificate of inspection shall only be used for government vehicles.

F. A government entity fleet station shall send a quarterly statement identifying vehicles and test results to the Department within 10 business days following the end of the quarter.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).

Amended effective January 3, 1977 (Supp. 77-1).

Amended effective January 3, 1979 (Supp. 79-1).

Amended effective January 1, 1986 (Supp. 85-6). Former

Section R9-3-1017 renumbered as Section R18-2-1017

and subsection (E) amended effective August 1, 1988

(Supp. 88-3). Amended effective November 14, 1994

(Supp. 94-4). Amended by final rulemaking at 6 A.A.R.

562, effective January 14, 2000 (Supp. 00-1).

R18-2-1018. Certificate of Inspection

- A. A fleet station other than a government entity fleet station shall use completed certificates of inspection as evidence that its vehicles meet the requirements of this Article unless inspection data is electronically transmitted to MVD under A.R.S. § 49-542(Q). If a fleet vehicle is inspected at a state station, the vehicle inspection report provided under R18-2-1011 shall be used.
- B. A certificate of inspection shall contain the following information:
1. VIN,
 2. Model year,
 3. License number,
 4. If applicable, a statement that the inspection meets area A requirements,
 5. Owner of vehicle,
 6. Date of expiration, according to R18-2-1019(F)(1)(b),
 7. Fleet station permit number, and
 8. Inspector's signature and license number.
- C. A certificate of inspection issued to a fleet vehicle is transferable to an auctioneer licensed as a used motor vehicle dealer to sell the vehicle. The certificate of inspection is valid for a period not to exceed 180 days after the transfer unless the vehicle is reregistered with a new owner, in which case the vehicle shall be inspected according to this Article before the reregistration.
- D. A certificate of inspection, complete or incomplete, is not transferable except as provided in subsection (C) or except

when submitted to MVD for the purpose of vehicle registration.

Only a person who meets the requirements of R18-2-1019(D)(1) is authorized to purchase certificates of inspection, certificates of waiver, or Government Vehicle Certificates of Inspection.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).
Amended effective January 3, 1977 (Supp. 77-1).
Amended effective March 2, 1978 (Supp. 78-2).
Amended subsection (A) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1018 renumbered as Section R18-2-1018 and amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

1019. Fleet Station Procedures and Permits

The following requirements apply to issuance of fleet station permits:

1. An owner or lessee of a fleet of 25 or more nonexempt vehicles whose place of business is located in areas A or B may apply to the Director for a permit to establish a fleet station. A dealer's business inventory of vehicles held for resale, counted cumulatively over the previous 12 months at the time of application review by the Department shall be used to determine compliance with this subsection.
2. Application forms for fleet station permits shall be obtained from the Department. All completed applications shall be submitted to the Department. Applications shall be considered "administratively complete" when:
 - a. The Department has received a completed application form and fleet agent designation form;
 - b. The applicant or designated employee successfully completes the fleet agent examination; and
 - c. The Department has conducted a site inspection.
3. Before an application for a fleet station permit may be approved, an inspection of the premises to determine compliance with subsections (B) and (C) shall be made by a state inspector.
4. A fleet station permit shall not expire.
5. A fleet station permit shall only be applicable to the fleet's inspection facility located at the address shown on the fleet station permit. If a fleet owner or lessee requests a permit for inspection facilities at more than 1 address, the fleet owner or lessee shall apply for a permit for each facility.
6. Fleet station permits issued by the Director are non-transferable.
7. When a permit name or address change does not involve a change of ownership, the permit shall be returned to the Department for cancellation and a new permit application shall be submitted. The Director shall cancel the returned permit and issue a new permit.
8. In the event of loss, destruction, or mutilation of the permit, the person to whom it was issued may obtain a duplicate upon furnishing satisfactory proof of loss, destruction, or mutilation. Any fleet that loses a fleet station permit issued by the Director, and, after obtaining a duplicate, finds the original, shall immediately surrender the original permit to the Department.

A fleet station permit applicant or fleet station permit holder, or its employees, shall own or lease the following equipment and maintain it in good working condition:

1. If the permit is for the inspection of nondiesel-powered vehicles:
 - a. Ignition timing light with timing advance tester;
 - b. Ignition-operated tachometer;
 - c. Dwell meter;
 - d. Socket tool for replacing spark plugs;
 - e. Spark-plug gap setting tool;
 - f. Tools for replacing or adjusting carburetors or fuel injection systems, distributors, fuel pumps, and ignition coils;
 - g. At least 1 NDIR CO and HC emissions analyzer that complies with the requirements of R18-2-1006 to conduct the emissions inspections. Only the equipment necessary to test the types of vehicles in the fleet inventory is required at the fleet stations;
 - h. Digital Volt/Ohm Meter;
 - i. Scan Tool capable of communications with OBD data stream of the fleet vehicles; and
 - j. Pressure test equipment for the gas cap integrity test.
2. If the permit is for the inspection of diesel-powered vehicles:
 - a. Tools for removing fuel pumps and injectors;
 - b. Fuel pressure gauge;
 - c. Opacity meter. The meter shall meet J1667 specifications for vehicles with a GVWR greater than 8,500 lbs. in area A;
 - d. Tools required by the vehicle manufacturer for field setting of fuel injectors, inlet and exhaust valve clearance, governors, and throttle controls; and
 - e. A dynamometer for testing light duty diesel vehicles.
3. If the permit is for a non-dealer fleet in area A, in addition to the requirements in subsections (1) and (2):
 - a. Equipment to perform a steady-state loaded emission test as required in R18-2-1006(E)(1)(a);
 - b. Equipment to perform a transient loaded emission test as required in R18-2-1006(E)(2)(b);
 - c. Equipment to perform the evaporative system integrity as required in R18-2-1006(E)(2)(c); and
 - d. Equipment to perform the maintenance and quality control requirements of R18-2-1006(E)(2) and "IM240 and Evap Technical Guidance".
- C. A fleet's inspection facility shall comply with the following requirements:
 1. The facility shall include space devoted principally to maintaining or repairing the fleet's motor vehicles. The space shall be large enough to conduct maintenance or repair of at least 1 fleet motor vehicle.
 2. The facility shall be exclusively rented, leased, or owned by the permit applicant or permit holder.
- D. A fleet owner or lessee shall employ the following personnel:
 1. If the facility is for the repair of nondiesel-powered vehicles, at least 1 person to perform tune-ups of engines and replacement or repair of fuel system and ignition components.
 2. If the facility is for the repair of diesel-powered vehicles, at least 1 person to perform tune-ups and replacement or repair of diesel fuel systems in the vehicle fleet.
 3. A licensed vehicle emissions inspector who will perform the necessary inspections. This inspector may be the same person required by subsection (1) or (2).
 4. A fleet agent, who shall be in charge of the day-to-day operation of the fleet and who demonstrates proficiency by passing a Department-administered examination annually, with a score equal to or greater than 80%, on the statutes and rules governing the operation and administra-

tion of a fleet emissions inspection station. The fleet owner or lessee shall designate the fleet agent on a form obtained from the Department.

E. Unless inspected at a state station, vehicles owned by or leased to a holder of a fleet emissions inspection station permit shall be inspected according to R18-2-1006(E) through (I), except as follows:

1. Dealer fleet vehicles in area A held for resale and all area B fleet vehicles, with a model year of 1981 or newer and other than diesel-powered, shall be required to take and pass both the curb idle test specified in R18-2-1006(F)(1) and a 2,500 RPM unloaded fast idle test as follows:
 - a. The vehicle's engine shall be operated at 2,500, \pm 300 RPM, for no more than 30 seconds with the transmission in neutral.
 - b. HC and CO exhaust emissions concentrations shall be recorded after readings have stabilized or at the end of 30 seconds, whichever occurs first, and compared to the loaded cruise standards in Table 2.
2. Dealer fleet vehicles in area A and area B held for resale, with a model year of 1980 or older and other than diesel-powered, shall be required to take and pass a curb idle test as specified in R18-2-1006(F)(1). The loaded cruise test standards in Table 2 shall apply to fleet vehicles tested under the 2,500 RPM unloaded fast idle test.
3. Dealer fleet vehicles in area A held for resale with a model year of 1975 or newer and other than diesel-powered, shall be required to take and pass a tampering inspection as specified in R18-2-1006(E)(6).
4. Dealer fleet vehicles in area B held for resale with a model year of 1975 or newer and other than diesel-powered, shall be required to take and pass a tampering inspection as specified in R18-2-1006(F)(5).
5. Consignment vehicles shall be tested at a state inspection station in accordance with R18-2-1005(A)(3).

F. The vehicle emissions inspector shall complete and process the forms for vehicle inspection as follows, except government entity fleets shall issue and process government vehicle certificates of inspection under R18-2-1017:

1. Certificates of inspection shall be processed as follows:
 - a. A certificate of inspection shall be completed and signed by the vehicle emissions inspector performing the inspection at the time the vehicle passes inspection. Only the vehicle emissions inspector performing the inspection may sign a certificate of inspection and the inspector shall initial all corrections. Certificates shall be issued in numerical order;
 - b. For all inspections that do not include a biennial test, the expiration date shall be 1 year from the date the vehicle passes the mandatory vehicle emissions inspection. For vehicles required to pass a biennial test, the expiration date shall be 2 years after the pass date;
 - c. All copies of a certificate of inspection shall be legible;
 - d. Unless inspection data is electronically transmitted under A.R.S. § 49-542(Q), the original completed certificate shall be presented to the Arizona Department of Transportation Motor Vehicle Division for processing of the vehicle's application for title and registration or the Arizona registration card. The Arizona Department of Transportation Motor Vehicle Division may accept a signed certificate of inspection as evidence that the vehicle is a fleet-inspected vehicle and meets the inspection requirements of this Article;

- e. The vehicle emissions inspector shall forward the 2nd copy of each completed certificate of inspection, along with the 2nd copy of the "Fleet Vehicle Inspection Report/Monthly Summary", to the Department monthly, not later than 2 weeks after the last day of the month in which the inspection is conducted;
- f. The 3rd copy of each completed certificate of inspection, along with the original "Fleet Vehicle Inspection Report/Monthly Summary", shall be retained for 2 years from the date of inspection;
- g. Vehicle emissions certificates shall be purchased from the Department in lots of 25. Excess certificates may be returned to the Department for refund or may be used in subsequent years;
- h. The fee for a certificate of inspection shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state of administering and enforcing the provisions of this Article as they apply to issuance of certificates of inspections. Payment for certificates shall be included with an application for certificates. Checks shall be made payable to the Department of Environmental Quality.
- i. Only the Department shall sell or otherwise transfer certificates of inspection. This subsection does not apply to the submission of a certificate of inspection to MVD for the purpose of vehicle registration;
- j. The fleet station owner shall be responsible for the security and accountability of all the owner's certificates;
- k. If any certificates are discovered lost or stolen, the fleet station owner shall notify the Department in writing within 24 hours, indicating the number of certificates lost or stolen and the serial numbers. The Department may revoke a fleet station permit for refusal or failure to report lost or stolen certificates within 24 hours;
- l. In the event of loss, destruction, or mutilation of an original completed certificate of inspection, a Director's certificate may be obtained from the Department by hand-delivery of the following:
 - i. The 2nd or 3rd copy of the lost, destroyed, or mutilated certificate of inspection;
 - ii. The original of the "Fleet Vehicle Inspection Report/Monthly Summary";
 - iii. A cover letter from the fleet agent explaining the situation that caused the loss, destruction, or mutilation of the original certificate of inspection; and
 - iv. Payment of a fee to cover the cost of issuance of the Director's certificate. The fee for a Director's certificate shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state of administering and enforcing the provisions of this Article as they apply to issuance of Director's certificates. Checks shall be made payable to the Department of Environmental Quality; and
- m. If an original certificate of inspection is voided by a fleet station, the original of the voided certificate shall be matched to the corresponding 3rd copy of the certificate and retained at the fleet station for 2 years from the date of inspection.

2. The fleet agent or vehicle emissions inspector shall obtain the "Fleet Vehicle Inspection Report/Monthly Summary" form from the Department. The vehicle emissions inspector performing the inspection shall record the following information on the form at the time of inspection:
 - a. The VIN of the vehicle passing inspection;
 - b. The vehicle's license number, if applicable;
 - c. The HC content of the undiluted exhaust recorded at idle;
 - d. The CO content of the undiluted exhaust recorded at idle;
 - e. The HC content of the undiluted exhaust recorded at 2,500 rpm;
 - f. The CO content of the undiluted exhaust recorded at 2,500 rpm;
 - g. If applicable, results of a tampering check;
 - h. The vehicle model year;
 - i. The vehicle make;
 - j. The date of inspection;
 - k. The license number of the vehicle emissions inspector conducting the inspection;
 - l. The signature of the inspector making the entry;
 - m. The serial number of the certificate of inspection, recorded in numerical order;
 - n. For vehicles required to take the transient loaded emission test, the inspector shall record the total HC, CO, CO₂ and NO_x measured in grams/mile, and the evaporative system integrity test result rather than the items in (c) through (g);
 - o. The registration number of the registered analyzer or opacity meter used to perform the inspection.
 - p. For light duty diesel vehicles, the inspector shall record opacity rather than undiluted HC and CO;
 - q. For heavy duty diesel vehicles, instead of undiluted HC and CO:
 - i. The time of the inspection;
 - ii. The ambient temperature;
 - iii. The corrected barometric pressure;
 - iv. The relative humidity at the time of inspection;
 - v. The engine year and cubic inch or liter displacement;
 - vi. The GVWR;
 - vii. The diameter of the exhaust stack, and
 - viii. The corrected opacity reading.
3. A certificate of waiver may be issued by a fleet vehicle emissions inspector unless the fleet owner or lessee is an auto dealer licensed to sell used motor vehicles under Title 28 of the Arizona Revised Statutes. The certificate of waiver may be issued according to the following procedure if the requirements of R18-2-1008(A), R18-2-1009, and R18-2-1010 have been met:
 - a. A certificate of waiver shall be completed and signed by the vehicle emissions inspector performing the inspection after completion of a fleet inspection waiver report. The report shall be forwarded to the Department within 3 business days from the date of issuance of the certificate of waiver. A fleet inspection waiver report shall be provided by the Department with the purchase of each certificate of waiver. The report shall contain a description of the vehicle, test results, and repairs performed.
 - b. The expiration date of the certificate of waiver shall be 2 years from the date that the waiver is issued for vehicles required to take the transient loaded emission test, and 1 year for all other vehicles.
 - c. All information required on the certificate of waiver shall be legible.
 - d. The vehicle emissions inspector issuing the certificate of waiver shall initial all corrections.
 - e. Only the vehicle emissions inspector performing the inspection may sign or initial a certificate of waiver.
 - f. Unless inspection data is electronically transmitted under A.R.S. § 49-542(Q), the original completed certificate shall be presented to the Arizona Department of Transportation Motor Vehicle Division for processing of either the vehicle's application for title and registration or the Arizona registration card. The Arizona Department of Transportation Motor Vehicle Division may accept the signed certificate of waiver as evidence that the vehicle is a fleet inspected vehicle and has met the inspection requirements of this Article if the certificate is complete and the expiration date has not passed.
 - g. The 2nd copy of each completed certificate of waiver shall accompany the completed fleet inspection waiver report.
 - h. The 3rd copy of each completed certificate of waiver, along with a copy of the fleet inspection waiver report, shall be retained by the fleet station owner for 2 years from the date of inspection.
 - i. The fee for a certificate of waiver shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state of administering and enforcing the provisions of this Article as they apply to issuance of certificates of waivers. Payment for certificates shall be included with an application for certificates. Checks shall be made payable to the Department of Environmental Quality.
 - j. Only the Department shall sell or otherwise transfer certificates of waiver. This subsection does not apply to the submission of a certificate of waiver to MVD for the purpose of vehicle registration.
 - k. The fleet station owner shall be responsible for the security and accountability of all the owner's certificates.
 - l. If any certificates are discovered lost or stolen, the fleet station owner shall notify the Department in writing within 24 hours and indicate the number of certificates lost or stolen and their serial numbers. The Department may revoke a fleet station permit for refusal or failure to report lost or stolen certificates within 24 hours of discovery.
 - m. In the event of loss, destruction, or mutilation of an original completed certificate of waiver, a Director's certificate may be obtained from the Department by hand delivery of the following:
 - i. The 2nd or 3rd copy of the lost, destroyed, or mutilated certificate of waiver;
 - ii. The original of the "Fleet Vehicle Inspection Report/Monthly Summary";
 - iii. A cover letter from the fleet agent explaining the situation that caused the loss, destruction, or mutilation of the original certificate of waiver; and
 - iv. Payment of a fee to cover the cost of issuance of the Director's certificate. The fee for a Director's certificate shall be fixed by the Director according to A.R.S. § 49-543, and shall be based upon the Director's estimated costs to the state of administering and enforcing

the provisions of this Article as they apply to issuance of Director's certificates. Checks shall be made payable to the Department of Environmental Quality.

- n. In the event an original certificate of waiver is voided by a fleet station, the original of the voided certificate shall be matched to the corresponding 3rd copy of the certificate and retained by the fleet for 2 years from the date of inspection.
4. Upon request, a state inspector shall be allowed access to and shall be permitted to photocopy, on or off the premises, any original "Fleet Vehicle Inspection Report/Monthly Summary", the 2nd copy of certificates of inspection, and any other related documents.
- G. The fleet shall comply with the following general operating requirements:
 1. The fleet station permit and the licenses of all inspectors employed at the station shall be prominently displayed at the fleet's inspection facility.
 2. A fleet station shall only certify vehicles owned by or leased to the holder of the fleet station permit.
 3. The inspection equipment shall be operated, calibrated, and maintained as follows:
 - a. All test equipment and instrumentation shall be maintained in accurate working condition as required by the manufacturer. Instruments requiring periodic calibration shall be calibrated according to instructions and recommendations of the instrument or equipment manufacturer. NDIR emission analyzers shall be registered and calibrated according to R18-2-1027. Calibration records for each instrument, except NDIR emission analyzers, shall be maintained by the fleet station. The calibration records shall be signed and dated by the technician performing each calibration.
 - b. The instrument calibration records shall be available for review by the Department.
 - c. Working gases used by the fleet station shall be subject to analysis and comparison to the Department's standard gases at any time.
 - d. Fleet station equipment shall be subject to both scheduled and unscheduled checks for accuracy and condition by the Department.
 4. A fleet emissions inspection station that is unable to test at least 25 vehicles according to R18-2-1006 and subsection (A) shall surrender its permit.
 5. A motor vehicle dealer with a fleet station permit shall comply with A.R.S. § 49-542.03.
 6. If a fleet station fails to meet any requirement of subsections (B), (C), or (D), it shall immediately cease operating as a fleet station until the requirement is met. If the fleet is cited for failure to have the necessary equipment under subsection (B), it shall not resume operation as a fleet emissions inspection station until compliance is verified by the Department.
 7. A fleet station shall notify the Department in writing within 7 days of the end of employment of any vehicle emissions inspector. A fleet station that does not employ a vehicle emissions inspector shall immediately cease operating as a fleet station and notify the Department immediately by telephone and within 7 days in writing. All unused vehicle certificates of inspection shall be returned to the Department within 7 days after operations cease for a refund.
 8. A fleet station that does not employ a fleet agent, as described in subsection (D)(4), shall immediately cease

operating as a fleet station and shall notify the Department immediately by telephone and within 7 days in writing unless the permit applicant or other designated employee has taken and passed the examination required in subsection (D)(4) and assumes responsibility for the day-to-day operation of the fleet station. The fleet owner shall notify the Department within 7 days of the designation of a new fleet agent.

- H. A fleet's activities shall be governed by the following compliance and enforcement rules:
 1. Subsections (B) through (G) apply at all times after the issuance of a fleet station permit. In addition, subsections (B), (C), and (D) apply before a permit can be issued or removed from suspension.
 2. The Director may suspend or revoke a fleet station permit according to A.R.S. §§ 49-546(F) and A.R.S. Title 41, Chapter 6, if the permittee, or any person employed by the permittee:
 - a. Violates any provision of Title 49, Chapter 3, Article 5 of the Arizona Revised Statutes or any provision of this Article;
 - b. Misrepresents a material fact in obtaining a permit;
 - c. Fails to make, keep, and submit to the Department records for vehicles tested as a permittee; or
 - d. Does not provide a state inspector access to the information required by this Article.
 3. If a fleet station permit is surrendered, suspended or revoked, all unused vehicle certificates of inspection shall be returned to the Department for a refund.
 4. Fleet vehicles are subject to inspection by state inspectors.
 5. Surrender of a permit under subsection (A)(8) or (G)(4) shall not prevent the Department from carrying out investigative or disciplinary proceedings against the permit holder for violations prior to surrender.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).
Amended effective January 3, 1977 (Supp. 77-1).
Amended effective March 2, 1978 (Supp. 78-2).
Amended effective January 3, 1979 (Supp. 79-1).
Amended effective February 20, 1980 (Supp. 80-1).
Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1019 as amended effective February 20, 1980, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1019 renumbered as Section R18-2-1019 and amended effective August 1, 1988 (Supp. 88-3).
Amended effective September 19, 1990 (Supp. 90-3).
Amended effective February 4, 1993 (Supp. 93-1).
Amended effective November 14, 1994 (Supp. 94-4).
Amended effective October 15, 1998 (Supp. 98-4).
Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1022. Procedure for Waiving Inspections Due to Technical Difficulties

A vehicle emissions station manager employed by an official emissions inspection station may issue a Director's certificate for a vehicle that cannot be inspected as required by this Article because of technical difficulties inherent in the manufacturer's design or construction of the vehicle.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).
Amended effective January 3, 1977 (Supp. 77-1).
Amended effective March 2, 1978 (Supp. 78-2).
Amended effective January 3, 1979 (Supp. 79-1).
Amended effective January 1, 1986 (Supp. 85-6).
Former Section R9-3-1022 renumbered without change as Section R18-2-1022 (Supp. 88-3). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1023. Certificate of Exemption for Out-of-State Vehicles

- A. If a vehicle being registered or reregistered in area A or area B requires an emission test and will not be available for inspection within the state during the 90-day period before the emissions compliance expiration date, and an emissions inspection is not available for that class of vehicle at an official inspection station in the area where the vehicle is located, the owner or owner's agent may apply in writing to the Department for a certificate of exemption.
- B. The owner or owner's agent shall complete the owner portion of the certificate of exemption form, and a law enforcement official shall complete the vehicle verification portion. The owner or owner's agent shall submit the completed form to the Department.
- C. The Department shall issue a certificate of exemption:
 - 1. For a vehicle that meets the requirements of subsection (A) as indicated by the form completed under subsection (B).
 - 2. For a vehicle that has passed an official emissions inspection in another state during the 90 days before emissions compliance expiration upon submission of the inspection compliance document issued by the government entity conducting the inspection program.
- D. The fee for a certificate of exemption shall be fixed by the Director according to A.R.S. § 49-543 and shall be based upon the Director's estimated costs to the state of administering and enforcing the provisions of this Article as they apply to issuance of certificates of exemption. The payment for the certificates shall be included with the application for certificates. Checks shall be made payable to the Department of Environmental Quality.

Historical Note

Adopted effective January 13, 1976 (Supp. 76-1).
Amended effective January 3, 1977 (Supp. 77-1).
Amended effective January 3, 1979 (Supp. 79-1).
Amended as an emergency effective January 2, 1981 pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1023 as amended effective January 3, 1979 and amended as an emergency effective January 2, 1981 now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Former Section R9-3-1023 renumbered without change as Section R18-2-1023 (Supp. 88-3). Amended effective February 4, 1993 (Supp. 93-1). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1025. Inspection of Contractor's Equipment and Personnel

A. State stations shall be inspected by state inspectors as follows:

1. In Area A:
 - a. Automated emission analyzers, calibrated and maintained according to "IM240 and Evap Technical Guidance", shall be inspected using state station field calibration gases at least once every other month.
 - b. Opacity meters shall be inspected for accuracy using a neutral density filter at least once each month.
 - c. During audits, a check shall be made for equipment tampering, worn instrumentation, blocked filters, and other conditions that would impair accurate sampling.
2. In Area B:
 - a. Automated emission analyzers shall be inspected using state station field calibration gases at least 2 times each month.
 - b. Opacity meters shall be inspected for accuracy using a neutral density filter at least 2 times each month.
 - c. During audits, a check shall be made for tampering, worn instrumentation, blocked filters, and other conditions that would impair accurate sampling.
 - d. Functional checks of dynamometer accuracy including roll speed and power absorption shall be performed at least quarterly.

B. Equipment used to perform a transient loaded emission test shall be audited at least twice a year for all of the following:

1. Constant volume sampler critical flow and calibration;
2. Optimization of the flame ionization detector fuel to air ratio using methane;
3. Proper dynamometer coast down, roll distance, and inertia weight;
4. Ability to detect background pollutant concentrations;
5. Evaporative integrity analysis systems for accuracy, response time, and other criteria consistent with "IM240 and Evap Technical Guidance"; and
6. Functional gas-cap analysis equipment.

C. If an equipment audit of an inspection lane in either area A or area B indicates that a state station analyzer is not operating within contractually specified tolerance, the state inspector shall immediately re-audit the failing equipment. If the equipment fails the 2nd audit, the inspector shall immediately notify the station manager. The station manager shall either replace or repair the failing equipment or close the affected lane until the equipment is repaired and its accuracy verified. The state

inspector shall provide a copy of the analyzer's failing results to the station manager.

- D. A state station analyzer removed by the contractor may be returned to service upon its repair and written verification of a passing calibration audit. The contractor shall immediately notify the Department in writing of the analyzer's return to service. The contractor's calibration audit of the analyzer shall be provided to the Department within 7 calendar days after the analyzer's return to service.**
- E. State inspectors shall conduct performance audits to determine whether vehicle emissions inspectors are correctly performing all inspections and functions related to inspections as follows:**
 1. Overt audits at least 2 times each year for each inspection lane:
 - a. Check for proper document security;
 - b. Check for required recordkeeping including vehicle emissions inspector licenses; and
 - c. Observation and written evaluation of each vehicle emissions inspector's ability to perform an inspection.
 2. State station and vehicle emissions inspector records shall be reviewed at least monthly to assess station performance and identify any problems, potential fraud, or incompetence.
 3. If a vehicle emissions inspector fails an audit under subsection (E)(1) or (E)(2), the vehicle emissions inspector's license may be suspended or revoked according to R18-2-1016(A)(4).
- F. On-road emissions analyzers shall be inspected by a state inspector at least monthly using dry-gas analysis equipment.**
- G. If an equipment audit indicates that an on-road emissions analyzer is not operating within contractually specified tolerance, the state inspector shall immediately re-audit the failing equipment. If the equipment fails the 2nd audit, the inspector shall immediately notify the contractor and the contractor shall repair or replace the equipment according to subsections (C) and (D).**

Historical Note

Adopted effective January 3, 1977 (Supp. 77-1).
Amended effective March 2, 1978 (Supp. 78-2).
Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1025 as amended effective March 2, 1978, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended subsection (A) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1025 renumbered as Section R18-2-1025 and subsection (C) amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1026. Inspection of Fleet Stations

- A. Equipment used by fleet stations shall be inspected by state inspectors for accuracy as follows:
1. Emission analyzers shall be inspected using field calibration gases at least quarterly.
 2. Opacity meters shall be inspected using a neutral density filter at least quarterly.
 3. Equipment for transient loaded emissions tests shall be inspected according to R18-2-1025(A) and (B).
- B. A fleet station's emissions analyzer shall not be used for an official emissions inspection if:
1. The state's field calibration gases are not read within the tolerances prescribed by subsection (J);
 2. There is a leak in the sampling systems or the calibration port; or
 3. The sample handling system is restricted.
- C. The fleet station is responsible for calibration of the fleet station emission analyzer.
- D. A state inspector may, at the inspector's discretion, allow a fleet station employee, or someone authorized by the fleet station, to calibrate the analyzer utilizing the state's field calibration gases.
- E. The Department shall assign HC and CO concentrations to a calibration gas submitted by a fleet station emission analyzer technician and purchased from a private source.
- F. A state inspector shall tag a fleet station emission analyzer if the analyzer does not meet the requirements of this Section. The fleet vehicle emissions inspector shall not use the analyzer for inspection until the tag is removed by a state inspector or an analyzer repair person certified under R18-2-1028. The tag shall be in the form of a U.S. postcard and contain the information listed in R18-2-1027(E).
- G. An analyzer tagged under subsection (F) shall not be returned to service until its accuracy is verified by a state inspector or an emissions analyzer repair person certified under R18-2-1028.
- H. A fleet station is responsible for periodic maintenance and calibrations of its emissions analyzers. Repair and maintenance requirements are prescribed in R18-2-1019.
- I. If a state inspector has approved its use, a fleet station may lease or borrow an emission analyzer for official inspections for up to 6 months while the station's approved analyzer is being repaired.
- J. Fleet station analyzers used for transient loaded tests shall comply with and be quality control checked according to "IM240 and Evap Technical Guidance". All other fleet station emission analyzers used for emissions inspections are required to read the calibration gases within the following tolerances:
1. Within plus 0.50% CO to minus 0.25% CO in the range from 0 to 2% CO;
 2. Within plus 1.00% CO to minus 0.50% CO in the range from 2% to 10% CO;
 3. Within plus 60 PPM HC to minus 30 PPM HC in the range from 0 to 500 PPM HC when read as N-HEXANE; and
 4. Within plus 200 PPM HC to minus 100 PPM HC in the range from 500 to 2,000 PPM HC when read as N-HEXANE.

- K. A fleet station opacity meter used for emission inspections is required to read the equivalent opacity value of neutral density filter within $\pm 5\%$ opacity at any point in the range of the meter.
- L. A state inspector shall conduct performance audits to determine whether a vehicle emissions inspector is correctly performing inspections and functions related to inspections as follows:
1. Overt audits at least 2 times each year for each facility:
 - a. Check for proper document security;
 - b. Check for required recordkeeping including vehicle emissions inspector licenses; and
 - c. Observe and make a written evaluation of each vehicle emissions inspector's ability to perform an inspection.
 2. Fleet station and vehicle emissions inspector records shall be reviewed at least monthly to assess fleet performance and identify any problems, potential fraud, or incompetence.

Historical Note

Adopted effective January 3, 1977 (Supp. 77-1).
Amended effective January 1, 1986 (Supp. 85-6).
Amended subsections (A) and (J) and added subsection (K) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1026 renumbered as Section R18-2-1026 and subsections (B), (F), (G) and (H) amended effective August 1, 1988 (Supp. 88-3).
Amended effective November 14, 1994 (Supp. 94-4).
Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1027. Registration and Inspection of Emission Analyzers and Opacity Meters

- A. An automotive repair facility may apply to the Department at no charge for registration of NDIR HC and CO analyzers, and opacity meters. NDIR emission analyzers and opacity meters used by fleet inspection stations shall be registered for the fleet station permit approval. Application forms for analyzer or opacity meter registration are available from the Department. Completed application forms shall be submitted to the Department. For purposes of Chapter 1 of this Title, the application components for registration of an analyzer or opacity meter are:
1. The Department receives a completed application form;
 2. The applicant or employee successfully completes the "Certified Technician" examination described in R18-2-1028(A)(2); and
 3. The Department inspects the analyzer.
- B. A registered analyzer shall be calibrated at least monthly, by a certified technician, with calibration gases approved by the Department. A registered opacity meter shall be calibrated, according to manufacturer's specifications before performing the 1st vehicle emissions inspection in any month.
- C. A registered analyzer shall meet the requirements of R18-2-1006(F)(6)(a). Calibration shall be verified by a state inspector before the analyzer is registered. The analyzer shall read the value of the calibration gases within the following tolerances:
1. Plus 0.50% CO to minus 0.25% CO in the range from 0 to 2% CO;
 2. Plus 1.00% CO to minus 0.50% CO in the range from 2% to 10% CO;
 3. Plus 60 PPM HC to minus 30 PPM HC in the range from 0 to 500 PPM HC when read as N-HEXANE; and
 4. Plus 200 PPM HC to minus 100 PPM HC in the range from 500 to 2,000 PPM HC when read as N-HEXANE.
- D. Each registered opacity meter and analyzer shall have a unique registration number assigned by the Department. The technician shall maintain a repair and calibration log for each registered opacity meter and analyzer on a form provided by the Department. The log shall be made available to a state inspector on request.
- E. A state inspector shall tag a registered opacity meter or analyzer if the opacity meter or analyzer does not meet the requirements of this Section. A tagged opacity meter or analyzer shall not be used for the purposes of R18-2-1010 or R18-2-1019 until the tag is removed by a state inspector or an emission analyzer repair person certified under R18-2-1028 after accuracy is verified.
1. The tag shall be in the form of a U.S. postcard and contain the following information:
 - a. Analyzer registration number or opacity meter registration number;
 - b. Brief statement that the analyzer does not meet state operating requirements for registered analyzers;
 - c. Reason for tagging;
 - d. Date the analyzer was tagged and the signature of state inspector issuing the tag;
 - e. Details of repairs performed to correct the failure;
 - f. CO and HC concentrations of calibration gases used to verify analyzer accuracy;
 - g. Analyzer readings when gases were introduced into the analyzer sampling probe; and
 - h. Repair person's certificate number and signature or signature of state inspector removing the tag and date accuracy is verified.
 2. The tag shall be returned to the Department within 2 business days after accuracy is verified.
- F. An owner of a registered emission analyzer or opacity meter shall notify the Department within 7 business days of the retirement, resignation, or termination of any licensed vehicle emissions inspector or certified technician. The Department shall revoke the registration of an emission analyzer or opacity meter if the owner of the analyzer or meter does not employ an inspector licensed under R18-2-1019 or a technician certified under R18-2-1028.

Historical Note

Adopted effective January 3, 1977 (Supp. 77-1).
Amended effective March 2, 1978 (Supp. 78-2).
Amended effective January 3, 1979 (Supp. 79-1).
Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1027 as amended effective January 3, 1979, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1027 renumbered as Section R18-2-1027 and subsections (B), (D), (F) and (G) amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1028. Certification of Users of Registered Analyzers and Analyzer Repair Persons

- A. A person may be certified to use a registered analyzer and opacity meter if:
1. The person completes the application form and submits it to the Department; and
 2. The person demonstrates proficiency by scoring 80% or higher on a Department-administered examination in the following areas:
 - a. Equipment used in the inspection and control of emissions;
 - b. Types of emissions inspection failures;
 - c. Correction procedures for excessive HC emissions;
 - d. Correction procedures for excessive CO emissions;
 - e. Proper carburetor adjustment procedures; and
 - f. Diesel fuel injection systems.
- B. Certification under subsection (A) shall be valid for 1 year from date of issue and may be renewed, under the conditions of subsection (A), by submitting a renewal application to the Department 30 days before the current certification expiration date.
- C. A person certified under subsection (A) shall notify the Department within 7 business days of the person's retirement, resignation, or termination from employment.
- D. A person may be certified to repair and remove tags from an emission analyzer under R18-2-1027 if:
1. Application is made to the Department;
 2. The person demonstrates proficiency by scoring 80% or higher on a Department-administered examination in the following areas:
 - a. State and federal regulations governing emissions analyzers,
 - b. Fundamentals of emission analyzer operation, repair and preventive maintenance,
 - c. Theory of operation of vehicle emissions control devices.
- E. Certification under subsection (D) shall be valid for 1 year from date of issue and may be renewed, under the conditions of subsection (D), by submitting a renewal application to the Department 30 days before the current certification expiration date.
- F. Each person certified under this Section shall receive a unique nontransferable certification number.
- G. The Department may suspend, revoke or refuse to renew the certification issued under subsection (A) if:
1. The person's actions demonstrate a lack of proficiency in the areas listed under subsection (A)(2); or
 2. The person has willfully violated any provision of this Article.
- H. The Department may suspend, revoke, or refuse to renew the certification issued under subsection (D) if:
1. The person's actions demonstrate a lack of proficiency in the areas listed under subsection (D)(2); or
 2. The person has willfully violated any provision of this Article.

Historical Note

Adopted effective January 1, 1986 (Supp. 85-6).
Amended subsections (A) and (F) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1028 renumbered as Section R18-2-1028 and subsection (D) amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1029. Vehicle Emission Control Devices

For the purposes of A.R.S. §§ 28-955 and 49-447, a registered motor vehicle shall have in operating condition all emission control devices installed by the vehicle manufacturer to comply with federal requirements for motor vehicle emissions or equivalent after-market replacement parts or devices.

Historical Note

Adopted effective January 3, 1977 (Supp. 77-1). Former Section R9-3-1029 renumbered as Section R18-2-1029 and amended effective August 1, 1988 (Supp. 88-3). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1030. Visible Emissions; Mobile Sources

- A. A vehicle other than a diesel-powered vehicle or 2-stroke vehicle that emits any visible emissions for 10 consecutive seconds or more is "excessive" for the purposes of A.R.S. § 28-955(C).
- B. A diesel-powered vehicle shall not emit any visible emissions in excess of:
 - 1. Twenty percent visual opacity for 10 consecutive seconds or more at or below 2,000 feet elevation;
 - 2. Thirty percent visual opacity for 10 consecutive seconds or more above 2,000 feet and at or below 4,000 feet elevation; and
 - 3. Forty percent visual opacity for 10 consecutive seconds above 4,000 feet elevation.
- C. A vehicle that exceeds the standards in subsection (B) fails the inspection under R18-2-1006 and is considered to have "excessive" emissions under A.R.S. § 28-955(C).

Historical Note

Adopted effective January 3, 1977 (Supp. 77-1).
Amended as an emergency effective January 2, 1981, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 81-1). Former Section R9-3-1030 as adopted effective January 3, 1977, and amended as an emergency effective January 2, 1981, now amended effective April 15, 1981 (Supp. 81-2). Amended effective January 1, 1986 (Supp. 85-6). Amended subsection (C) effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1030 renumbered as Section R18-2-1030 and subsection (C) amended effective August 1, 1988 (Supp. 88-3). Amended effective September 19, 1990 (Supp. 90-3). Amended by final rulemaking at 6 A.A.R. 562, effective January 14, 2000 (Supp. 00-1).

R18-2-1031. Standards for Evaluating the Oxidation Efficiency of a Catalytic Converter

A. Except for a vehicle requiring an Idle-Only Inspection, a gasoline-powered vehicle requiring a catalytic converter test under R18-2-1008(C) shall be tested using the following Catalyst Efficiency Test Procedure:

1. Immediately after a vehicle completes an Inspection and Maintenance (I/M) test in the waiver lane, the exhaust sampling cone shall be removed from the tailpipe. The vehicle shall remain on the dynamometer with the engine idling and the transmission in neutral. The vehicle engine must be at normal operating temperature.
2. For the catalyst test, the dynamometer and the constant volume sampler shall remain at the settings used for the vehicle's I/M test.
3. The inspector shall insert the sampling tube for the A/F analyzer into the tailpipe of the vehicle.
4. The inspector shall accelerate the vehicle to 40 ± 2.5 MPH and maintain a steady-state operating mode for the duration of the test. Once the vehicle obtains the test speed, the test shall begin.
5. Once the test begins, a 2-minute stabilization period shall take place, during which the inspector shall monitor the A/F analyzer to ensure that the A/F is 14.0 or greater. If the mean A/F is less than 14.0, the inspector shall abort the test.
6. If the A/F is 14.0 or greater, the exhaust sampling cone shall be repositioned for exhaust sampling.
7. After the stabilization period ends, the total hydrocarbon and methane concentrations and the A/F ratio shall be continuously recorded for 2 minutes.
8. At the end of the 2-minute sampling period, the inspector shall stop the vehicle, remove the exhaust sampling cone and the A/F analyzer sampling probe from the tailpipe, and remove the vehicle from the dynamometer.
9. The mean total hydrocarbon concentration shall be divided by the mean methane concentration for the recorded values of the test, to produce a ratio (R) of total hydrocarbon to methane. The ratio, R, shall be applied to the formula: Catalyst Efficiency (%) = $-3 (R) + 100$.
10. A vehicle passes the test if the Catalyst Efficiency (%) is 75% or greater.
11. The test result for a non-passing vehicle with a mean A/F equal to, or less than, 14.3 shall be inconclusive.
12. A vehicle fails the Catalyst Efficiency Test Procedure if the A/F is greater than 14.3 and the Catalyst Efficiency

(%) is less than 75%. The failing vehicle cannot be granted a waiver according to R18-2-1008(C)(1).

B. Analytical equipment required to perform the Catalyst Efficiency Test Procedure shall meet the following requirements:

1. Analyzer Specifications:

- a. An analyzer shall meet performance specifications of 40 CFR 86 subparts B, D, and N with respect to accuracy, precision, drift, interference, and noise. 40 CFR, subparts B, D, and N, adopted as of July 1, 1998, are incorporated by reference and on file with the Department and the Secretary of State. This incorporation contains no future editions or amendments. A copy of this referenced material may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop SSOP, Washington D.C. 20402-9328.
- b. Total hydrocarbon analysis shall be determined by a flame ionization detector. The analyzer shall be single range with a calibration curve covering at least 0 to 300 ppm carbon.
- c. Methane analysis shall be determined by a flame ionization detector equipped with a non-methane cutter capable of oxidizing 98% of the hydrocarbons (except methane) while more than 90% of the methane remains unchanged. The analyzer shall be single range with a calibration curve covering at least 0 to 30 ppm.
- d. Engine A/F mixture analysis shall be determined by a Universal Exhaust Gas Oxygen Sensor. The range

shall be 8.0 to 25.5 A/F for gasoline with an accuracy of $\pm 2\%$ of point and a response time of less than 150 milliseconds.

2. Analyzer Performance Verification and Calibration:

- a. The operator of an analyzer under this Section shall verify analyzer performance according to manufacturer recommendations.
- b. Upon initial installation, and monthly thereafter, the operator of an analyzer under this Section shall generate a 10-point calibration curve for each total hydrocarbon and methane analyzer. A gas divider employing equally spaced points may be used to generate the calibration curve.
 - i. Each calibration curve generated shall fit the data within $\pm 2.0\%$ at each calibration point.
 - ii. Each calibration curve shall be verified for each analyzer with a confirming calibration standard between 15-80% of full scale that is not used for curve generation. Each confirming standard shall be measured by the curve within $\pm 2.5\%$.

Historical Note

Adopted effective January 1, 1987, filed December 31, 1986 (Supp. 86-6). Former Section R9-3-1031 renumbered as Section R18-2-1031 and amended effective August 1, 1988 (Supp. 88-3). Amended effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

TABLE 1. DYNAMOMETER LOADING TABLE - ANNUAL TESTS

Gross Vehicle Weight Rating (Pounds)	Engine Size	Speed (MPH)	Load (HP)
8500 or less	4 cyl. or less	22-25	2.8-4.1
8500 or less	5 or 6 cyl.	29-32	6.4-8.4
8500 or less	8 cyl. or more	32-35	8.4-10.8
8501 or more	All	37-40	12.7-15.8

Historical Note

Adopted effective November 14, 1994 (Supp. 94-4).

**TABLE 2. EMISSIONS STANDARDS - ANNUAL TESTS
MAXIMUM ALLOWABLE**

Vehicle Engine Type	Vehicle Model Year	Gross Vehicle Weight Rating (Pounds)	Number of Cylinders	Conditioning Mode		Curb Idle Mode Test		Loaded Cruise Mode Test	
				HC PPM	CO %	HC PPM	CO %	HC PPM	CO %
4-stroke Motorcycles	All	All	All	500	5.00	1,800	5.50		
4-stroke	1981 and newer	8500 or less	All	100	0.50	220	1.20	220	1.20
4-stroke	1980	8500 or less	All	100	.50	220	1.20	220	1.20
4-stroke	1979	8500 or less	4 cylinders or less	120	1.00	220	2.20	220	1.65
4-stroke	1979	8500 or less	More than 4 cylinders	120	1.00	220	2.00	220	1.50
4-stroke	1981 and newer	Greater than 8500	All	300	3.00	300	4.00	300	3.00
4-stroke	1979 and 1980	Greater than 8500	All	300	3.00	300	4.00	300	3.00
4-stroke	1975-1978	6000 or less	4 cylinders or less	120	1.00	250	2.20	250	1.65
4-stroke	1975-1978	6000 or less	More than 4 cylinders	120	1.00	250	2.00	250	1.50
4-stroke	1975-1978	Greater than 6000	All	300	3.00	350	4.00	350	3.00
4-stroke	1972-1974	All	4 cylinders or less	380	3.50	400	5.50	400	4.20
4-stroke	1972-1974	All	More than 4 cylinders	300	3.00	400	5.00	400	3.75
4-stroke	1967-1971	All	4 cylinders or less	450	3.75	500	5.50	500	4.20
4-stroke	1967-1971	All	More than 4 cylinders	380	3.00	450	5.00	450	3.75
4-stroke	Reconstructed 1981 and newer	All	All	700	5.25	1,200	7.50	700	5.25
4-stroke	Reconstructed All 1980 and older	All	All	700	5.25	1,200	7.50	1,200	5.60
2-stroke	1981 and newer	All	All	18,000	5.00	18,000	5.00	18,000	5.00
2-stroke	1980 and older	All	All	18,000	5.00	18,000	5.00	18,000	5.00

Historical Note

Renumbered from R18-2-1006 and amended effective November 14, 1994 (Supp. 94-4). See emergency amendment below (Supp. 94-4). Emergency amendment adopted effective December 23, 1994, pursuant to A.R.S. § 41-1026, valid for 180 days (Supp. 95-2). Emergency amendment expired, previous text placed back into effect effective June 21, 1995 (Supp. 95-3).

TABLE 3. EMISSION STANDARDS - BIENNIAL TESTS

FINAL STANDARDS (Standards are in grams per mile)

(i) Light Duty Vehicles

Model Years	Hydrocarbons		Carbon Monoxide		Oxides of Nitrogen	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1981-1982	3.0	2.5	25.0	21.8	3.5	3.4
1983-1985	2.4	2.0	20.0	17.3	3.5	3.4
1986-1989	1.6	1.4	15.0	12.8	2.5	2.4
1990-1993	1.0	0.8	12.0	10.1	2.5	2.4
1994+	0.8	0.7	12.0	10.1	2.0	1.9

(ii) Light Duty Trucks 1 (less than 6000 pounds GVWR)

Model Years	Hydrocarbons		Carbon Monoxide		Oxides of Nitrogen	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1981-1985	4.0	3.4	40.0	35.3	5.5	5.4
1986-1989	3.0	2.5	25.0	21.8	4.5	4.4
1990-1993	2.0	1.7	20.0	17.3	4.0	3.9
1994+	1.6	1.4	20.0	17.3	3.0	2.9

(iii) Light Duty Trucks 2 (greater than 6000 pounds GVWR)

Model Years	Hydrocarbons		Carbon Monoxide		Oxides of Nitrogen	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1981-1985	4.4	3.7	48.0	42.5	7.0	6.9
1986-1987	4.0	3.4	40.0	35.3	5.5	5.4
1988-1989	3.0	2.5	25.0	21.8	5.5	5.4
1990-1993	3.0	2.5	25.0	21.8	5.0	4.9
1994+	2.4	2.0	25.0	21.8	4.0	3.9

Historical Note

Adopted effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

TABLE 4. TRANSIENT DRIVING CYCLE

Time second	Speed mph	Time second	Speed mph	Time second	Speed mph	Time second	Speed mph	Time second	Speed mph
0	0	30	20.7	60	26	90	51.5	120	54.9
1	0	31	21.7	61	26	91	52.2	121	55.4
2	0	32	22.4	62	25.7	92	53.2	122	55.6
3	0	33	22.5	63	26.1	93	54.1	123	56
4	0	34	22.1	64	26.5	94	54.6	124	56
5	3.3	35	21.5	65	27.3	95	54.9	125	55.8
6	6.6	36	20.9	66	30.5	96	55	126	55.2
7	9.9	37	20.4	67	33.5	97	54.9	127	54.5
8	13.2	38	19.8	68	36.2	98	54.6	128	53.6
9	16.5	39	17	69	37.3	99	54.6	129	52.5
10	19.8	40	17.1	70	39.3	100	54.8	130	51.5
11	22.2	41	15.8	71	40.5	101	55.1	131	50.8
12	24.3	42	15.8	72	42.1	102	55.5	132	48
13	25.8	43	17.7	73	43.5	103	55.7	133	44.5
14	26.4	44	19.8	74	45.1	104	56.1	134	41
15	25.7	45	21.6	75	46	105	56.3	135	37.5
16	25.1	46	22.2	76	46.8	106	56.6	136	34
17	24.7	47	24.5	77	47.5	107	56.7	137	30.5
18	25.2	48	24.7	78	47.5	108	56.7	138	27
19	25.4	49	24.8	79	47.3	109	56.3	139	23.5
20	27.2	50	24.7	80	47.2	110	56	140	20
21	26.5	51	24.6	81	47.2	111	55	141	16.5
22	24	52	24.6	82	47.4	112	53.4	142	13
23	22.7	53	25.1	83	47.9	113	51.6	143	9.5
24	19.4	54	25.6	84	48.5	114	51.8	144	6
25	17.7	55	25.7	85	49.1	115	52.1	145	2.5
26	17.2	56	25.4	86	49.5	116	52.5	146	0
27	18.1	57	24.9	87	50	117	53		
28	18.6	58	25	88	50.6	118	53.5		
29	20	59	25.4	89	51	119	54		

Historical Note

Adopted effective November 14, 1994 (Supp. 94-4). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

TABLE 5. TOLERANCES

	Range	State Station	Fleet Station
4 & 2 stroke vehicles:			
CO in MOL percent	0 to 2.0%	±0.1%	±0.25%
	2 to 10.0%	±0.25%	±0.5%
4-stroke vehicles:			
HC as N-hexane in PPM	0 to 500 PPM	±15 PPM	±30 PPM
	500 to 2000 PPM	±50 PPM	±100 PPM
2-stroke vehicles:			
HC as propane in PPM	0 to 25,000 PPM	±1250 PPM	±1250 PPM

Historical Note

Adopted effective November 14, 1994 (Supp. 94-4).

TABLE 6. EMISSION STANDARDS - REMOTE SENSING IDENTIFICATIONS

Vehicle Engine Type	Vehicle Model Year	Gross Vehicle Weight Rating (Pounds)	Number of Cylinders	Remote Sensing Standard CO %	Remote Sensing Standard HC ppm
N/A	1991-1999	8500 or less	N/A	3.5	450
N/A	1983-1990	8500 or less	N/A	3.9	500
N/A	1981-1982	8500 or less	N/A	5.2	500
N/A	1991-1999	6000 or less	N/A	5.2	525
N/A	1988-1990	6000 or less	N/A	6	575
N/A	1984-1987	6000 or less	N/A	6	575
N/A	1981-1983	6000 or less	N/A	6.8	875
N/A	1991-1999	6000-8500	N/A	5.2	525
N/A	1988-1990	6000-8500	N/A	6	575
N/A	1984-1987	6000-8500	N/A	6	575
N/A	1981-1983	6000-8500	N/A	6.8	875
4-Stroke	1980+Newer	8500 or less	All	3.6	500
4-Stroke	1979+Newer	Greater than 8500	All	5.5	575
4-Stroke	1979	8500 or less	4 cylinders or less	4.1	500
4-Stroke	1979	8500 or less	More than 4 cylinders	3.9	500
4-Stroke	1975-1978	6000 or less	4 cylinders or less	4.1	550
4-Stroke	1975-1978	6000 or less	More than 4 cylinders	3.9	550
4-Stroke	1975-1978	Greater than 6000	All	5.5	600
4-Stroke	1972-1974	All	4 cylinders or less	6.7	650
4-Stroke	1972-1974	All	More than 4 cylinders	6.2	650
4-Stroke	1967-1971	All	4 cylinders or less	6.7	725
4-Stroke	1967-1971	All	More than 4 cylinders	6.2	675
4-Stroke	1981 and Newer, Reconstructed	All	All	7.8	875
4-Stroke	1980 and Older, Reconstructed	All	All	8.1	1225

Historical Note

Adopted effective November 14, 1994 (Supp. 94-4). See emergency amendment below (Supp. 94-4). Emergency amendment adopted effective December 23, 1994, pursuant to A.R.S. § 41-1026, valid for 180 days (Supp. 95-2). Emergency amendment expired, previous text placed back into effect effective June 21, 1995 (Supp. 95-3). Amended by final rulemaking at 6 A.A.R. 382, effective December 20, 1999 (Supp. 99-4).

ARTICLE 11. FEDERAL HAZARDOUS AIR POLLUTANTS**R18-2-1101. National Emission Standards for Hazardous Air Pollutants (NESHAPs)**

A. Except as provided in R18-2-1102, the following subparts of 40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAPs), and all accompanying appendices, as of July 1, 1999, and no future editions or amendments, are incorporated by reference. These standards are on-file with the Office of the Secretary of State and the Department and shall be applied by the Department.

1. Subpart A - General Provisions.
2. Subpart C - Beryllium.
3. Subpart D - Beryllium Rocket Motor Firing.
4. Subpart E - Mercury.
5. Subpart F - Vinyl Chloride.
6. Subpart J - Equipment Leaks (Fugitive Emission Sources) of Benzene.
7. Subpart L - Benzene Emissions from Coke By-Product Recovery Plants.
8. Subpart M - Asbestos.

9. Subpart N - Inorganic Arsenic Emissions from Glass Manufacturing Plants.

10. Subpart O - Inorganic Arsenic Emissions from Primary Copper Smelters.

11. Subpart P - Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities.

12. Subpart V - Equipment Leaks (Fugitive Emission Sources).

13. Subpart Y - Benzene Emissions From Benzene Storage Vessels.

14. Subpart BB - Benzene Emissions from Benzene Transfer Operations.

15. Subpart FF - Benzene Waste Operations.

B. Except as provided in R18-2-1102, the following subparts of 40 CFR 63, NESHAPs for Source Categories, and all accompanying appendices, as of July 1, 1999, and no future editions or amendments, are incorporated by reference. These standards are on file with the Office of the Secretary of State and the Department and shall be applied by the Department.

1. Subpart A - General Provisions.