



## A Newsletter for Fleet Emissions Inspection Facilities and Inspectors

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VEI Web site: [www.carcare.azdeq.gov](http://www.carcare.azdeq.gov)

### Editorial Desk:

Welcome to the Fall 2009 issue of "Fleets in Review". We hope that you have been benefitting from the overview of the Arizona Administrative Code (Rules) as they apply to vehicle emissions.

With the threat of the H1N1 virus, training staff would very much appreciate everyone's cooperation in that if anyone is feeling sick to not come to class, but reschedule. For everyone's benefit, if anyone does come to class ill, they may be asked to leave. The surest way to deal with the threat is to stay alert, and proactive. Thanks for your cooperation.

While it seems early as this is being written, we thought it prudent to advise you of some schedule changes coming up at year's end. Walk-in testing will be moved to Thursdays at the end of December because Christmas and New Years Day fall on Friday. This will affect those of you whose license expires in December or January and don't wish to take the cert. class.

### The Rules Corner:

*A continuing discussion of the rules governing vehicle emissions inspections. How do we get these rules in the first place? Who enforces them? Who must follow them? We hope to answer these and other questions about the Arizona Administrative Code (AAC) in this column. Readers may look at the rules online or purchase a copy of them by going to the Secretary of State Web site: [www.azsos.gov](http://www.azsos.gov).*

In previous issues we have attempted to cover who is responsible under the rules, what vehicles must be tested for emissions and when. Then we surveyed the test procedure. (Previous issues of "Fleets in Review" are available online at [www.vei.azdeq.gov](http://www.vei.azdeq.gov). Scroll down to "Vehicle

Fleets/Newsletters"). In this issue we will continue our study, beginning with R18-2-1007.

### R18-2-1007, Evidence of Meeting State Emission Requirements

When a vehicle is inspected, some means are necessary for authorities to know an inspection has been performed and passed. R18-2-1007 is a very short rule that spells out what are acceptable forms of proof that can be used.

- A. Vehicles must pass inspection prior to registration or receive a waiver.
- B. MVD may identify a passing vehicle through the use of its database.
- C. In lieu of the database, MVD or third party registrants may use any of the following (with restrictions, and source):
  1. Certificate of Compliance (State Station)
  2. Certificate of Waiver (ADEQ)
  3. Certificate of Exemption (ADEQ)
  4. Director's Certificate (ADEQ)
  5. Top portion of the vehicle inspection report showing "Pass" (State Station)
- D. A properly completed "Certificate of Inspection", showing an inspection date within 12 months of registration due date for annual tests or 24 months for biennial tests. (Currently there are no fleets permitted to perform biennial emissions testing).

### R18-2-1008, Procedure for Issuing Certificates of Waiver

There are only a few circumstances wherein a waiver may be issued, as spelled out in this rule:

- A. A Certificate of Waiver may be issued by ADEQ when it is determined that (1) the vehicle has failed more than once in the current test cycle, and (2) it is determined that any further repairs within the repair cost limits would be ineffective.
- B. A waiver may be granted in the event that it is demonstrated that necessary parts are no longer available to repair a tampering failure.

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- C. A waiver cannot be issued to a vehicle that has failed due to failure of the catalytic converter system. Converters are inspected for oxidation efficiency at the waiver facility.
- D. A waiver cannot be issued if the emissions exceed two times the applicable standard for the vehicle.
- E. No vehicle may receive a waiver more than one time.
- F. Waivers are issued for a fixed fee established by the department director, based on the costs to the state for administering the waiver program.

### **R18-2-1009, Tampering Repair Requirements**

The criteria for tampering repairs are:

- A. A vehicle failing for a missing or improperly installed catalytic converter must receive a new OEM or equivalent aftermarket converter.
- B. A vehicle failing for the “gas cap” shall have installed a cap that meets the specifications of R18-2-1006.
- C. A vehicle failing for lack of an operational air “pump” shall have a proper air injection system installed.
- D. The positive crankcase ventilation system must be functional or be replaced with a suitable functioning system.
- E. Failure of the evaporative control system shall be repaired by replacement of a properly installed and functioning system.

### **R18-2-1010, Low Emissions Tune Up, Emissions and Evaporative System Repair**

The criteria and procedure for low emissions tune-ups are described in this rule.

- A. For non-diesel vehicles:
  - 1. Failure diagnosis: The required diagnostic tools to be used are listed. Scan tool, tachometer, timing light, engine analyzer, NDIR as appropriate to the vehicle.
  - 2. Adjustments are to be made to manufacturer’s specifications and final adjustments at normal engine operating temperature.
  - 3. Inspect air cleaner, choke, air intake system and repair or replace as appropriate.
  - 4. Check timing and dwell as appropriate and correct as necessary.
  - 5. Check PCV system, verify correct and operational or repair.
  - 6. Verify correct vacuum routing and inspect for leaks, or plugs. Repair as necessary.
  - 7. Inspect fuel lines for leaks; repair as necessary.
  - 8. Check idle speed and A/F mixture. Adjust to manufacturer specifications.

- B. A failing vehicle does not qualify for a waiver unless the low emissions tune-up is performed.
- C. If, after performing a low-emissions tune-up, the maximum required repair cost has not been exceeded, (see E. or F. below) the following procedures apply.

#### 1. CO only failure:

- a. Check for canister purge system operation, high float setting, leaking power valve, faulty or worn needles, seats, jets (or jet size) if appropriate.
- b. Where applicable, check the following; computer, sensors, solenoids, thermostat(s), engine switches, coolant switches, fuel injection system, fuel lines, air entrapped in fuel system, fuel return system, injection pump, injection timing, vacuum hoses and electrical connections.
- c. Repair or replace the above as appropriate.

#### 2. HC or HC and CO failure:

- a. Check for, spark plugs and wires, distributor module and components, vacuum and electrical, points and condenser, crossfire (dist. cap), catalytic converter efficiency, vacuum leaks at or in components, manifold, EGR etc.
- b. repair or replace as necessary.

#### 3. Nox failure:

- a. Check for; EGR, EGR control circuitry (inc. computer controls), high engine operating temperature, air management system, lean A/F mixture, Catalytic converter efficiency, over-advanced off-idle timing.
- b. Repair or replace as necessary.

#### 4. OBD Failure:

If a vehicle fails the OBD test, repairs are to be made in accordance with the items indicated on the failure report or the components causing the diagnostic trouble codes. Following repair, the vehicle must be operated following the manufacturer’s recommended practices in order to verify the appropriate repairs have been completed.

#### D. Evaporative System Failures.

Evaporative system failures are either related to the pressure test or the visual inspection. If failing the pressure test, the vehicle shall be checked for leaks of the tank, hoses, cap etc. If failing a visual inspection, look for missing, incorrect or broken evap system parts. Repair or replace as appropriate.

#### E. Maximum Repair Cost (area A).

Here are listed the maximum cost required for

repair of failing vehicles in order to comply with the emissions statutes.

This section specifies what must be spent to comply, unless the vehicle is brought into compliance for a lesser sum or the vehicle owner wishes to perform additional repairs to bring the vehicle into compliance.

**F. Maximum Repair Cost (area B)**

The procedure is the same as above, but the maximum costs differ for the Tucson area.

**G. Low Emission Tune-Up for Diesels.**

The process for performing a required low emissions tune-up on a diesel vehicle is outlined in this section. It is similar to that for a gasoline powered vehicle, but specific to the diesel engine.

**H. Warranty Coverage.**

Before the repair costs may be applied toward the maximum repair cost limit, any available manufacturer's emissions warranty must be used.



Left David Burrell and right David Dunn fleet vehicle emissions inspectors employed at Liberty Buick. Congratulations for excellent compliance with Vehicle Emissions Inspection regulations. Below is the service drive of Liberty Buick on Bell Rd. in Peoria.



## Questions & Answers:

*In this column staff will deal with recurring questions about emissions related problems and their solutions. We encourage you to submit your queries to VEI at (602) 771-3950 and ask for a technician. Questions of a common nature will also be addressed here.*

Some of the most often repeated questions we receive concern waivers and the waiver process. Here are a few of the most common:

**Question:** How do I get a waiver?

**Answer:** The vehicle must be tested and fail emissions two times (in the same registration period). The emissions readings must be less than two times the standard; the dollar liability for the year of the vehicle must be met; and the catalytic converter must be at least 75 percent efficient or it must be replaced.

**Question:** How long is the waiver good for?

**Answer:** Waivers are good for the same length of time as the test they were issued for. The length of time a test is good for is based on the vehicle's annual registration cycle. Idle, loaded/idle and diesel tests are issued for one year. OBD and IM147 tests are issued for two years.

**Question:** How many times can a vehicle be waived?

**Answer:** Waivers are one time only. A vehicle that receives a waiver must pass the emissions test the next time it is due for testing and cannot receive another waiver.

**Question:** I want to change the engine in my car from a V6 to a V8 what do I need to do?

**Answer:** You would need to install a certified engine package from the same model year vehicle or a newer one. See EPA's Engine Switching Fact Sheet at: [www.epa.gov/compliance/resources/policies/civil/caa/mobile/engswitch.pdf](http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/engswitch.pdf)

**Question:** I am missing a piece of equipment (AIR, PCV, EVAP or CAT) and the vehicle passes emissions. Can I get the equipment waived?

**Answer:** No. Equipment is installed by the manufacturer of the vehicle so that it will pass the federal certification test, not our state test. Removing the equipment or a failure to repair it is considered tampering and therefore cannot be waived.

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## 2009 Second Half Training Schedule

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Dealers	15-16
Diesel	3
Tucson	29-30

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Dealers, Government and Fleet Shop	3-4
Diesel	5
Tucson	17-18

OCTOBER 2009	
Fleet	Dates
Government and Fleet Shop	6-7
Dealers	20-21
Diesel	8
Tucson	27-28

DECEMBER 2009	
Fleet	Dates
Dealers, Government and Fleet Shop	8-9
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