



A Newsletter for Fleet Emissions Inspection Facilities and Inspectors

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VEI Web site: www.carcare.azdeq.gov

The Rules Corner:

We are beginning a continuing discussion of rules governing vehicle emissions inspection. How did 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) as it applies to you 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.

Due to a local or statewide need, or in response to a federal requirement, the Legislature writes a governing statute(s). Arizona Revised Statutes tell the responsible parties what must be done. In the case of vehicle emissions, an entire section of the statutes; Title 49, deals with air quality requirements. Sections 49-541 thru 49-550 deal specifically with automobile emissions and the service and inspection industry.

The Department of Environmental Quality is tasked with ensuring that the statutory requirements are met. In order to accomplish this task, the department drafts rules and enters them into the Arizona Administrative Code. Article 10, "Motor Vehicles: Inspections and Maintenance" of the AAC describes how the statutes are to be carried out.

Each of the rules in Article 10 deal with a specific issue or issues. Specific to fleet operators is R18-2-1019 "Fleet Station Procedures and Permits". However, 1019 makes reference to other of the rules, so we will look at them all in this discussion. The first few we will look at briefly.

R18-2-1001 Definitions

Here are all the abbreviations, terms and acronyms used throughout the following rules, and their definitions or explanations. When reviewing the rules, refer to this section when something appears to need further explanation. Here are just some examples of the definitions found in this section of interest to fleets:

20. "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.
26. "Emissions inspection station permit" means a certificate issued by the Director authorizing the holder to perform vehicle emissions inspections under this Article.
31. "Fleet emissions inspection station" or "Fleet Station" means any vehicle emissions inspection facility operated under a permit issued under A.R.S. § 49-546.

R18-2-1002, Reserved

R18-2-1004, Reserved

When a rule is "Reserved" it is not currently in use and is set aside for future use. There will be no text in place.

R18-2-1003, Vehicles to be inspected by the mandatory Vehicle Emissions Inspection Program

This rule defines all classes of vehicles that are to be inspected for emissions, and those that are specifically exempted.

R18-2-1003.A.2 reads:

Each vehicle delivered to a retail purchaser by a dealer licensed to sell used motor vehicles for highway use under ARS Title 28 and whose place of business is located in area A or area B. (this rule requires any vehicle sold at retail must first be inspected).

(continued on page 2)

R18-2-1003.B.3 (part of a list of vehicles exempt from inspection) reads:

A vehicle sold between motor vehicle dealers. (This exempts from inspection any vehicle that is whole-saled from one dealer to another.)

It is worth noting, that the only fleets specifically mentioned in this rule are dealers. All other fleet owners will be addressed later in R18-2-1019.

R18-2-1005, Time of Inspection

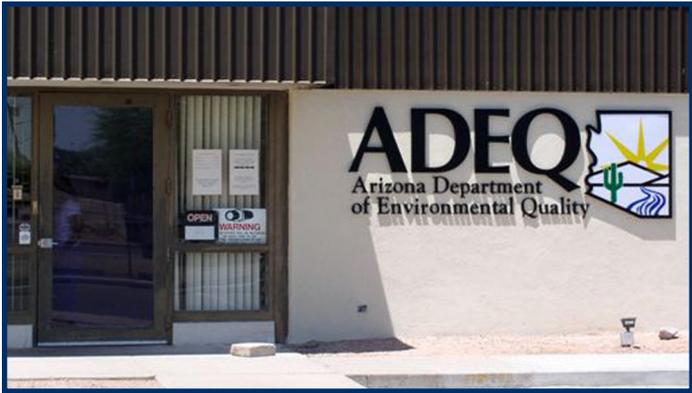
This rule defines when vehicles must be inspected. For example, *R18-2-1005.A* reads, in part: All area A or B vehicles subject to an annual test and vehicles sold or offered for sale by dealers required to be inspected under R18-2-1003, shall be inspected at the following times:

2. For a vehicle sold by a dealer licensed to sell used motor vehicles under ARS Title 28 before delivery of the vehicle to the retail purchaser.
3. For a consignment vehicle offered for sale by a dealer...before delivery of the vehicle to the retail purchaser. The consignment vehicle shall be inspected at a state station according to R18-2-1006. (Consignment vehicles are not owned by the dealer, therefore cannot be inspected by the dealer.)
5. For a vehicle owned or leased by a person having a valid fleet station permit, at least once within each 12 month period following any original registration or re-registration.

R18-2-1005.B lists the exceptions for vehicles that are subject to biennial testing. Also defined in section “E” is the time of original inspection: A new vehicle that is exempt from emissions testing under R18-2-1003(B)(10), and subject to either an annual or biennial test, shall be tested in the sixth registration year after its first registration.

Of course there is more to the rule than those passages noted here. You should be familiar with the rules. In the next issue we will continue with R18-2-1006, the Emissions Test Procedure.

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Editorial Desk:

This issue of “Fleets in Review” marks the beginning of the fifth year of publication. Wow, five years! It is our hope that you are reading and profiting from these newsletters. With this issue, we are beginning a survey of the rules that govern the Vehicle Emissions Program and the fleet inspection stations which are permitted by ADEQ.

A look at the rules, even a cursory review, can be a lengthy process. So, beginning with this issue, we will be expanding the format of the publication to four pages. We hope you like the change, as well as the discussion of the rules that govern us.

In the past we have attempted to do articles on topics that several people have inquired about or that seem to have been a source of difficulty for fleet operations. With this edition, we are beginning a column of “Questions and Answers” about emissions-related issues. We encourage you to continue to call our technicians with questions and with problems you encounter. We will address each question directly and some will become subject matter of the Q & A column here.

We at VEI are very aware of the economic situation we are all going through, and of the problems many of you are facing. We sincerely hope that the future looks much brighter than the current situation and that all of you are able to stay the course.



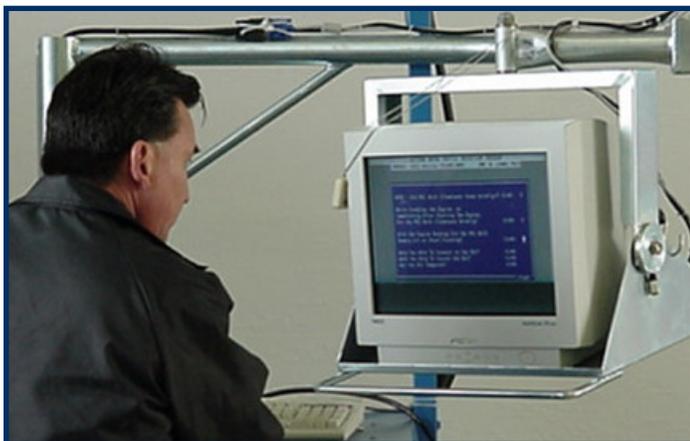
Questions & Answers:

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) 207-7005, ask for a technician. Questions of a common nature will also be addressed here.

Question: I have been unable to get the readiness monitors to reset to “ready” no matter what I do. Where do I go from here? (This has become a common question over the entire fleet, so it is a good choice for our first Q & A.)

Answer: There are a number of things that can prevent the readiness monitors from setting.

- Coolant temperature too low (most OBD II vehicles must be above 1900 degrees F. in order for monitors to reset, some even higher. Normal coolant temperature can be as high as 2100 degrees F.) Check that the thermostat is present and not stuck open.
- Battery voltage too low.
- Vehicle has “Diagnostic Trouble Codes” present. DTCs must be cleared before respective monitors will reset.
- Pre-conditions not met. Some drive cycles have pre-conditions that must be met before the monitor will function. (fuel level between $\frac{1}{4}$ and $\frac{3}{4}$ in gas tank, CTS and IAT within so many degrees of each other at start-up, closed loop enabled, etc.)
- Some monitors may require only one trip and others may take two to three trips in order to set. When the drive cycle says that a key cycle must be done before running the next drive cycle, you may have to wait until the next morning so there is enough time for the engine to cool off (may require a specific temperature change before performing the next cycle).



EXAMPLE: here is a typical GM drive cycle for OBD II equipped vehicles.

1. **Cold start.** In order to be considered a cold start, the engine coolant temperature must be below 500 degrees C (1220 F) and within 60 degrees C (110 F) of the ambient air temperature at startup. Do not leave the key on prior to the cold start or the heated oxygen sensor diagnostic may not run.
2. **Idle.** The engine must be run for two and a half minutes with the air conditioner on and rear defroster on. The more electrical load you can apply the better. This will test the O2 heater, passive air, purge “No Flow,” Misfire and if closed loop is achieved, fuel trim.
3. **Accelerate.** Turn off the air conditioner and all the other loads and apply half throttle until 55 mph is reached. During this time the misfire, fuel trim, and purge flow diagnostic will be performed.
4. **Hold steady speed.** Hold a steady speed of 55 mph for three minutes. During this time the O2 response, air intrusive, EGR, purge, misfire, and fuel trim diagnostics will be performed.
5. **Decelerate.** Let off the accelerator pedal. Do not shift, touch the brake or clutch. It is important to let the vehicle coast along gradually slowing down to 20 mph. During this time the EGR, purge and fuel trim will be performed.
6. **Accelerate.** Accelerate at $\frac{3}{4}$ throttle until 55-60 mph is reached. This will perform the same diagnostics as in step 3.
7. **Hold speed steady.** Hold a steady speed of 55 mph for five minutes. During this time, in addition to the diagnostics performed in step 4, the catalyst monitor diagnostics will be performed. If the catalyst is marginal or the battery has been disconnected, it may take five complete driving cycles to determine the state of the catalyst.
8. **Decelerate.** This will perform the same diagnostics as in step 5. Again, don't press the clutch or brakes or shift gears.

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2009 Second Half Training Schedule

JULY 2009	
Fleet	Dates
Government and Fleet Shop	7-8
Dealers	14-15
Diesel	9
Tucson	28-29
AUGUST 2009	
Fleet	Dates
Government and Fleet Shop	4-5
Dealers	11-12
Diesel	6
Tucson	Not Scheduled
SEPTEMBER 2009	
Fleet	Dates
Government and Fleet Shop	1-2
Dealers	15-16
Diesel	3
Tucson	29-30

OCTOBER 2009	
Fleet	Dates
Government and Fleet Shop	6-7
Dealers	20-21
Diesel	8
Tucson	27-28
NOVEMBER 2009	
Fleet	Dates
Dealers, Government and Fleet Shop	3-4
Diesel	5
Tucson	17-18
DECEMBER 2009	
Fleet	Dates
Dealers, Government and Fleet Shop	8-9
Diesel	10
Tucson	15-16