ADEQ
Arizona Department of Environmental Quality

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Government Entity & Fleet Shop

Fleet Station Handbook
Area A (Metro Phoenix)
Information for Fleet Station Personnel

REV-9-04(2)

Introduction

This handbook describes the fleet emissions inspection station requirements for all entities other than licensed motor vehicle dealers. Contained within are: Summarizations of the fleet emissions inspection station permitting and inspector licensing processes; lists of required inspection equipment and equipment maintenance/calibration standards; inspection procedures for specific classes of vehicles; record keeping procedures. The handbook was developed from laws and regulations found in Arizona Revised Statutes Title 49, Chapter 3, Article 5, and Arizona Administrative Code, Title 18, Chapter 2, Article 10.

Permits are issued after the Department has found that the company:

1. Maintains an established place of business for the repair and maintenance of the applicant's fleet of vehicles
2. Has approved machinery, tools and equipment to adequately conduct the required emissions inspections
3. Employs properly trained and licensed personnel to perform the necessary labor
4. Agrees to provide data as may be prescribed by the director

If you have any questions regarding this handbook, please call the Vehicle Emissions Inspection and Compliance Unit at (602) 207-7000, in Phoenix, or (520) 628-5651, ext.0, in Tucson.

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Section I

Fleet Station Permits
(For all fleets, except motor vehicle dealers)

A. Fleet Station Facility and Personnel Requirements:

Permitted fleet emissions inspection stations must meet the following requirements:

1. The permitted facility is exclusively owned or leased by the applicant and is located inside area A as defined in Arizona Revised Statutes § 49-541(1).

2. The applicant must own or lease at least 25 non-exempt vehicles.

3. The facility must have a space specifically dedicated to maintaining or repairing at least one fleet vehicle.

4. The applicant must employ a fleet agent who is in charge of day to day operations of the fleet. The fleet agent can be the applicant or a designated employee. The fleet agent must also pass an examination on the rules governing the day-to-day operation of the fleet station.

5. The fleet must employ a licensed emissions inspector to perform inspections of fleet owned vehicles. The licensed inspector must be certified to inspect for the types of vehicles owned or leased by the fleet (the fleet agent and inspector can be the same person).

6. The applicant or employee(s) must own or lease equipment necessary to perform all aspects of the required inspections.

7. The applicant must agree to provide data to the Department as prescribed by the Director.

B. Fleet Permit Suspension or Revocation:

Fleet station permits do not expire. However, the fleet permit can be suspended or revoked if the fleet owner or employees:

1. Violate any provision of Arizona Revised Statute Title 49, Chapter 3, Article 5 or Arizona Administrative Code Title 18, Chapter 2, Article 10;

2. Misrepresent material facts in obtaining a fleet permit;

3. Fail to make, keep and submit pertinent records to the Department;

4. Fail to provide a state inspector access to the information required by law.

C. Types of Fleet Permits and Emissions Inspection Equipment Requirements:

Fleet permits are issued to a fleet service shop for the inspection of specific vehicles by class.

The following are the types of permits issued and the equipment requirements for each:

1. Motorcycles and constant four-wheel drive vehicles (including vehicles equipped with traction control that cannot be disabled) require the following equipment to perform a **curb idle test:**

    - A non-dispersive infra-red CO and HC emissions analyzer that is equipped with a water trap in the sampling line capable of taking undiluted exhaust samples from the vehicle exhaust system;
    - Pressure test equipment for the functional gas cap test capable of determining that gas cap leakage does not exceed 60cc per minute at 30 inches of water gauge (not required for motorcycles at this time);
    - An ignition-operated tachometer.

2. 1980 and older vehicles, 1981 and newer heavy-duty vehicles (8501 lbs. GVWR or greater), and all school district alternative fuel vehicles require the same equipment as required to perform the curb idle test, as well as a dynamometer to perform **a loaded cruise test.**

3. 1996 and newer light-duty vehicles, (8500 lbs. GVWR or less) (except alternative fuel vehicles) require the following equipment to perform the **On-Board Diagnostic (OBD)** inspection and functional gas cap test:

    - A scan tool used to perform the OBD test that complies with SAE J1979;
    - Pressure test equipment for the functional gas cap test capable of determining that gas cap leakage does not exceed 60cc per minute at 30 inches of water gauge.

4. 1981 through 1995 light-duty vehicles (8500 lbs. GVWR or less) require the following equipment to perform **a transient loaded (IM147) emissions inspection** and **evaporative emissions system pressure test**:

    - Equipment to perform a transient loaded emission test: the complete list of equipment requirements, maintenance specifications, and quality control requirements can be found in United States Environmental Protection Agency's publication "IM240 and Evap Technical Guidance" (EPA-AA-RSPD-IM-98-1). You may find the requirements at http://www.epa.gov/otaq/epg/techguid.htm.
    - Equipment to perform the evaporative system pressure test., as required for vehicles subject to the transient loaded test.

5. 1967 through 1995 light-duty diesel vehicles (8500 lbs. GVWR or less) require the following equipment to perform the **steady state loaded mode test**:

    - A dynamometer capable of loading the vehicle;
    - A full flow or sampling type opacity meter.

6. 1996 and newer light-duty diesel vehicles (8500 lbs. GVWR or less) require equipment to perform the **OBD** inspection according to the Society of Automotive Engineers Recommended Practice J1979.

7. 1967 and newer heavy-duty diesel vehicles (8501 lbs. GVWR and greater) require equipment to perform the **snap-acceleration test** according to Society of Automotive Engineers Recommended Practice J1667.

D. General Fleet Station Requirements:

The following requirements apply to all fleet stations:

1. The fleet permit along with licenses of agents and inspectors employed by the fleet must be prominently displayed within the facility.

2. Whenever an inspector starts or ends employment with a dealer fleet, the fleet station must notify the Department in writing within 7-days of the change in employment status. (Written notification can be done by mail however, the preferred method is E-mail or Fax to 602 207-7020). The written notification must include; the name and license number of the vehicle emissions inspector; a statement declaring the employment change; the effective date of the employment change.

   If the fleet's only licensed inspector leaves the employment of the fleet station the fleet must; immediately cease operating as a fleet inspection station; immediately notify the Department by phone of the change in employment status; within 7-days, notify the Department in writing and surrender all unused certificates of inspection to the Department for a refund.

3. Whenever a fleet agent is hired, terminated or resigns, the fleet owner must do the following, when applicable:

   a. When a fleet agent is hired, the fleet must notify the Department within 7-days of the designation of a new fleet agent. This will require the fleet owner to submit a completed "Fleet Agent Designation" form (see attachment).

   b. When a fleet agent is terminated or resigns, and there is no qualified individual to assume the responsibility of day to day operations, the fleet must; immediately cease operations as a fleet station; immediately notify the Department by phone; notify the Department in writing within 7-days of the change in employment status.

   c. When a fleet agent is terminated or resigns, and there is a qualified individual (someone who has passed the fleet agent/inspector exam) to assume the responsibility of day-to-day operations, the fleet must notify the Department within 7-days of the designation of a new fleet agent. This will require the fleet owner to submit a completed "Fleet Agent Designation" form (see attachment).

4. The fleet permit is only applicable to the fleet's inspection facility located at the address on the permit. Additional facilities will require separate permits. A permitted facility

that changes its name or address, but retains the same fleet ownership, is required to return the permit to the Department and submit a new permit application. The Department will cancel the returned permit and issue a new permit with the updated information.

5. A duplicate permit for one that has been lost, destroyed or mutilated may be obtained by providing a letter of explanation and request for replacement (include damaged permit, if applicable). If a duplicate permit is issued and the lost permit is later located, the dealer fleet station must immediately return the original to the Department.

Section II

Fleet Agent & Inspector Licensing

A. Licenses:

There are four types of vehicle emissions inspector licenses that pertain to permitted fleet facilities. These licenses are designated as follows:

"A" Fleet Agent
"CF" Non-Diesel Vehicle Inspector
"FD" Diesel Vehicle Inspector
"CFD" Non-Diesel and Diesel Vehicle Inspector

To obtain a license, the applicant must take and pass the appropriate examination(s) relating to the inspector license. Applicants must pass all tests with a minimum correct score of 80 percent.

1. "A" License requires the applicant to pass the Fleet agent/inspector examination (25 questions)

2. "CF" License requires the applicant to pass the following tests:
   - Certified technician examination (75 questions)
   - Fleet agent/inspector examination (25 questions)
   - Non-diesel inspector examination (25 Questions)

3. "FD" License requires the applicant to pass the following tests:
   - Fleet agent/inspector examination (25 questions)
   - Diesel inspector examination (25 questions)

4. "CFD" License requires the applicant to pass the following tests:
   - Certified technician examination (75 questions)
   - Fleet agent/inspector examination (25 questions)
   - Non-diesel inspector examination (25 questions)
   - Diesel inspector examination (25 questions)

B. Testing options:

1. Attending the Two-Day Fleet Certification Class:

   Twice each month, the Department holds a 2-day certification class at the Vehicle Emissions Office (600 North 40th Street, Phoenix). The class curriculum covers basic emission control systems, theory and diagnosis, as well as applicable fleet station laws and regulations. If you have not attended a class in the last couple of years, it may be beneficial to do so as you may not be aware of some of the latest program changes. The class is not recommended for applicants seeking the "A" or "FD" license. Applicants

planning to attend the class should register 30-days in advance to ensure seating availability. Upon completion of the fleet certification class, applicants should be able to pass all examinations. To register, call our office at (602) 207-7000.

2. Challenging the Test:

   The Department allows for applicants to challenge the tests and bypass the two-day fleet certification class. Tests can be challenged every Friday (excluding holidays) between 8:00 a.m. and 2:30 p.m. at the Vehicle Emissions Office (600 North 40th Street, Phoenix). Testing by appointment is available; please call our office at (602) 207-7000.

   If an applicant fails the certified technician examination, the applicant is required to attend the fleet certification class before retaking the examination.

3. Inspector License Renewal and Expiration:

   To retain the current license expiration date, the inspector must renew the license within 30-days before the expiration date. If the license is allowed to expire, the license expiration will be changed to one year from the date the inspector passed the required examinations.

C. Change of Employment Status Inspector and Agent Notification Requirements:

A vehicle emissions inspector is required to notify the Department of any change in employment status due to hiring, retirement, resignation, or termination within 7-days of such a change. Please call (602) 207-7000. In addition, the fleet owner or agent is required to notify the Department in writing within 7-days. Written notification may be faxed to (602) 207-7020; e-mailed to *Osborne.Adrion@azdeq.gov*; or sent by mail to 600 North 40th Street, Phoenix, Arizona 85008.

The burden of notifying the Department if a fleet agent is hired, retires, resigns or is terminated falls solely on the fleet owner. The fleet agent is not required to notify the Department.

D. Inspector License Revocation

The Department may suspend, revoke, or refuse to renew a license if the licensee has violated any provision of Arizona Revised Statutes Title 49, Chapter 3, Article 5, or Arizona Administrative Code Title 18, Chapter 2, Article 10. In addition, an inspector license may be suspended, revoked, or refused to be renewed if the inspector fails to demonstrate proficiency to the Department regarding vehicle emissions inspection procedures.

Section III

Fleet Station & Licensed Inspector Auditing

Permitted fleet facilities and inspectors are subject to periodic audits by the Department to ensure that emissions inspection and documentation procedures are being followed. Outlined below are the audit types, and the minimum required frequency of each audit.

1. Fleet motor vehicle compliance with emissions inspection requirements, at least annually;
2. Licensed inspector performance at least twice annually;
3. Fleet Station emissions inspection records, monthly as submitted to the Department.

Section IV

Equipment Maintenance, Calibration & Auditing Requirements

A. Requirements for Non-Diesel Equipment:

1. All equipment and testing instruments must be maintained in accurate working condition as specified by the manufacturer. Instruments that require a periodic calibration must be calibrated according to the instructions and recommendations of the instrument or equipment manufacturer.

2. To maintain registration, non-dispersive infra-red CO and HC analyzers must be checked with approved calibration gases at least monthly by a certified technician.

   - The approved calibration gas will contain a blend of hexane (300 parts per million) and carbon monoxide (1.5 percent) or hexane (300 parts per million), carbon monoxide (1.5 percent), and carbon dioxide (5.0 percent).

   - The analyzer must read the calibration gas within the following tolerances:

     CO -0.25% to +0.50 % **in the range from 0 to 2% (Low Scale)**
     HC -30 ppm to +60 ppm **in the range from 0 to 500 ppm (Low Scale)**

   - The monthly calibration check should include an inspection of the analyzer's sampling and filtration systems

   - The record of the calibration check and any repairs performed must be documented on the analyzer's repair and calibration history log (VE-160)

   - Analyzers that do not read within the tolerances specified above or have leaks or restrictions in the sampling or calibration systems, must be removed from service and cannot be used to perform official emissions inspections until repairs are performed and the analyzer passes a calibration check.

3. At least quarterly, the Department will conduct a state calibration audit. The Department may also perform unscheduled audits for analyzer accuracy. The repair and calibration history log (VE-160) must be available to a state inspector during an audit. During a state calibration audit the analyzer must read within following tolerances.

   CO -0.25% to +0.50 % **in the range from 0 to 2% (Low Scale)**
   CO -0.50% to +1.0 % **in the range from 0 to 10% (High Scale)**

   HC -30 ppm to +60 ppm **in the range from 0 to 500 ppm (Low Scale)**
   HC -100 ppm to +200 ppm **in the range from 0 to 2000 ppm (High Scale)**

4. Analyzers that do not read within the state calibration audit tolerances will be "red tagged," and cannot be used by the fleet for official emissions inspection until:

- The analyzer has been properly repaired;
- The analyzer has passed a state calibration audit or vendor calibration audit performed by a certified analyzer repair technician, (analyzers repaired by the manufacturer or out of state repair facility must pass a state calibration audit);
- The red tag has been removed by a state inspector or certified analyzer repair technician.

B. Requirements for Diesel Equipment:

1. All equipment must be maintained in accurate working condition as specified by the manufacturer. Instruments requiring a periodic calibration must be calibrated according to the instructions and recommendations of the instrument or equipment manufacturer.

2. To maintain registration, the calibration of an opacity meters must be checked before performing the first emissions inspection of any month.

- Opacity meters must be checked using a neutral density filter.
- The opacity meter must read the filter within " 5 percent opacity of the filter value.
- The monthly calibration check should include an inspection of the opacity meters optics and cables.
- The record of the calibration check and any repairs performed must be documented on the opacity meter's repair and calibration history log (VE-160).
- Opacity meters that do not read within the tolerance specified above must be removed from service and cannot be used to perform emissions inspections until repairs are performed and the meter passes a calibration check.

3. At least quarterly, the Department will conduct a state calibration audit. The Department may also perform unscheduled audits for analyzer accuracy. The repair and calibration history log (VE-160) must be available to a state inspector during an audit. During a state calibration audit the opacity meter must read the state inspector's filter within " 5 percent opacity of the filter value.

7. Opacity meters that do not read within the state calibration audit tolerance will be "red tagged," and cannot be used by the fleet for official inspections until:

- The opacity meter has been properly repaired;
- The opacity meter has passed a state calibration audit or a vendor calibration audit performed by a certified analyzer repair technician;
- The red tag has been removed by a state inspector or certified analyzer repair technician.

Section V

Time of Inspection, Required Inspections, & Inspection Procedures

Government vehicles, unless exempt (see Section VII), require inspection annually. If not exempt, inspections are required within 12-months after acquisition. Vehicles that are no longer eligible for the new vehicle exemptions must be tested within 90-days following the anniversary of their date of acquisition. Annual inspections thereafter are required during or before the anniversary month of the last inspection.

Privately owned vehicles (fleet shop) require inspection annually. Unless exempt under the new vehicle exemptions, inspection are required at least once within each 12 month period following registration.

For the inspections required for specific vehicles by class, see appendix

Following are detailed procedures for each type of inspection/test that is required:

A. Curb Idle Test:

The curb idle test measures the exhaust emissions with the vehicle stopped and the engine idling at manufactures specification " 100 RPM.

- Vehicles equipped with an automatic transmission are tested in drive with foot brake applied
- Vehicles equipped with a manual transmission are tested in neutral with foot brake applied

To perform the curb idle test, insert the exhaust sample probe 8 to12 inches into the exhaust pipe. Record the HC and CO readings after the readings have stabilized or at the end of **90** seconds, whichever occurs first. **For all motorcycles/constant 4wd/undefeatable traction system vehicles** record the HC and CO readings after the readings have stabilized or at the end of **30** seconds, whichever occurs first.

If any vehicle is equipped with multiple exhaust pipes and the analyzer is not capable of sampling multiple pipes the test must be performed separately on each exhaust pipe. Record the HC and CO readings for each exhaust pipe and obtain an average. Compare the average results to the maximum allowable.

If the vehicle's emissions are above the standard, the engine may be preconditioned by operating it at 2500 rpm " 300 RPM for up to a maximum of **30** seconds. After preconditioning, return the engine speed to curb idle and perform a second idle test. If the emissions levels are below the standard, the vehicle passes the curb idle test. If the vehicle's emissions levels still exceed the maximum allowable, the vehicle fails inspection and repairs are required.

B. Curb Idle/Steady State Loaded Cruise Test:

When performing the curb idle portion of the test, the vehicle's transmission must be in neutral with the foot brake applied, regardless of transmission type.

To perform the curb idle test, insert the exhaust sample probe 8 to 12 inches into the exhaust pipe. Record the HC and CO readings after the readings have stabilized or at the end of **90** seconds, whichever occurs first. If the vehicle's emissions are above the standard, the test may be performed again after the loaded cruise test.

The loaded cruise test measures the exhaust emissions while the vehicle is driven on a dynamometer with a load applied to the drive tires. The exhaust probe must be inserted 8 to 12 inches into the exhaust pipe. If the vehicle is equipped with an automatic transmission, the appropriate gear for this test is "Drive" (Do not use "Overdrive"). For vehicles equipped with a manual transmission, select the appropriate gear for speed and load. Use the chart below to determine the appropriate speed and load. Accelerate until the proper MPH is achieved and hold the speed steady. Apply a load using the dynamometer. Record the HC and CO readings once they have stabilized or at the end of **90** seconds, whichever occurs first.

If any vehicle is equipped with multiple exhaust pipes and the analyzer is not capable of sampling multiple pipes the test must be performed separately on each exhaust pipe. Record the HC and CO readings for each exhaust pipe and obtain an average. Compare the average results to the maximum allowable.

Loaded Cruise Test Dynamometer Loading Table

GVWR	Number of Cyl's	Speed (MPH)	Load (HP)
8500 or less	4 Cyl. or less	22 to 25	2.8 to 4.1
8500 or less	5 or 6 Cyl.	29 to 32	6.4 to 8.4
8500 or less	8 or more	32 to 35	8.4 to 10.8
8501 or more	All	37 to 40	12.7 to 15.8

C. Onboard Diagnostic (OBD) Test:

The OBD test interrogates the vehicle's computer system to determine emissions compliance and does not include exhaust sampling.

The test consists of verifying the operation of the malfunction indicator lamp (MIL); confirming that the appropriate readiness monitors are set; visually inspecting the diagnostic link connector (DLC); determining if the MIL is commanded "ON"; recording diagnostic trouble codes (DTC).

The process is as follows:

1. Turn the ignition to "Key On Engine Off" (KOEO) and observe the MIL; the MIL must be lit. This portion of the test verifies MIL operation and is commonly known as the "bulb check." On = pass, Proceed to Step 2; Off = fail, perform necessary repairs and re-inspect.

2. Locate DLC and inspect for tampering (missing, loose, or damaged). If the vehicle fails the DLC tampering inspection, do not proceed, perform repairs as needed. Passing DLC, proceed to Step 3.

3. Connect approved scan tool to DLC. Turn ignition to "Key On Engine Running" (KOER) and observe the MIL. The MIL should light and then go out during this phase. If the MIL stays on; the vehicle fails, perform repairs and re-inspect. If the MIL stays off the vehicle is a pass. Proceed to Step 4

4. With the scan tool in the generic OBD mode, follow the scan tool manufacturer's instructions to determine the following:

   - Readiness Monitor Status: 1996 through 2000 model year vehicles are allowed two or fewer unset readiness monitors for a valid test. 2001 and newer model year vehicles are allowed one or less unset readiness monitors for a valid test. If monitor requirements are not met, the vehicle must be driven through a drive cycle until required monitors are set.

   - Observe the MIL status command to determine if the vehicle computer is commanding the MIL to be on or off. MIL commanded off = pass, Proceed to Step 5. MIL commanded on = fail, repair and re-inspect.

5. Perform the functional gas cap test as explained in Section V "Fleet Test Procedures (F).

6. After the vehicle passes all steps of the OBD and functional gas cap inspection, record information on Fleet Vehicle Inspection Report/Monthly Summary and complete the Certificate of Inspection.

D. Transient Loaded Test/Evaporative System Pressure Test:

The transient loaded test (IM147) test measures the vehicle exhaust emissions during a specific drive cycle and calculates mass emissions in grams per mile. Due to the complexity and expense associated with obtaining and maintaining the required equipment, there are currently no facilities in Arizona that have a fleet permit to perform IM 147 testing. For information about the procedures and requirements for this test, go to http://www.epa.gov/otaq/epg/techguid.htm.

E. Visual Gas Cap Inspection:

The visual gas cap inspection consists of verifying that the vehicle has a properly fitting gas cap. The visual inspection is performed on vehicles that were manufactured without evaporative control systems. This includes most 1970 and older vehicles, and many 1984 and older federal heavy-duty trucks. These vehicles were designed to vent fuel tank vapors into the atmosphere. Many 1970 and newer heavy-duty vehicles certified to meet California emission requirements were equipped with evaporative control systems and **are** subject to a functional gas cap test.

F. Functional Gas Cap Test:

The functional gas cap test determines if the gas cap properly seals, preventing fuel vapor (hydrocarbons) from escaping into the atmosphere. This test consists of attaching the gas cap to a testing unit that applies pressure and monitors air flow or leakage. Maximum allowable leakage is 60 cubic centimeters per minute at 30 inches of water.

If the vehicle fails the functional gas cap test, a complete re-inspection is required. A faulty gas cap can cause the evaporative system to malfunction, which may affect emissions.

G. Equipment Tampering:

The tampering inspection is based on the original configuration of the vehicle as manufactured and consists of the following:

1. A visual inspection to determine the presence and proper installation of each required **Catalytic Converter** (if applicable as manufactured);

2. An examination to determine the presence of an **operational air injection system** (if applicable as manufactured);

3. A visual inspection to determine the presence of an **operational positive crankcase ventilation system** and **evaporative control system** (if applicable as manufactured);

   The above components shall be verified by referring to "VEHICLE EMISSIONS CONTROL INFORMATION" label. The label on many older vehicles may be damaged, missing or unreadable. Refer to an emissions control application guide.

H. Diesel Steady State Loaded Mode Test:

The steady state loaded test measures the opacity of the diesel's exhaust emissions with the vehicle driven on a dynamometer. A load is applied to the drive tires. When using a partial flow opacity meter, follow the manufacturer's instructions and connect the meter to the exhaust pipe. When using a full flow opacity meter, center the read head perpendicular to the exhaust pipe. The read head must be no further away from the exhaust pipe than the diameter of the pipe. Accelerate the vehicle and apply load until the proper speed and load is reached (see chart below). **The exhaust must be sampled for a period of ten consecutive seconds**. If the vehicle has multiple exhaust pipes, test each pipe and record the results of the pipe emitting the highest opacity readings. **Compare the results to the maximum allowable of 20 percent.**

Loaded Opacity Test Dynamometer Loading Table

GVWR	Speed (MPH)	Load (HP)
4,000 or less	30	7.4 " 1 HP (6.4 to 8.4)
4,001 to 8,500	50	30 " 2 HP (28 to 32)

I. Diesel Onboard Diagnostic (OBD) Test:

The OBD test interrogates the vehicle's computer system to determine emissions compliance and will not include exhaust sampling.

The test is performed the same on a diesel vehicle, as a non-diesel vehicle. Follow the same procedure as outlined in Section V "Fleet Test Procedures (C).

J. Diesel Snap-Acceleration Test (SAE J1667):

1. Before testing, the following must be verified:

   - The vehicle is safe to test;
   - The governor is operating;
   - The engine is at normal operating temperature;
   - No unusual noises, smoke or other conditions exist that could affect the accuracy of the test or indicate damage to the engine;
   - The engine brake is disabled;
   - The spring brake is deactivated. (On some vehicles, activating the spring brake disables the engine puff limiter which can increase opacity readings);
   - To prevent vehicle movement, the wheels should also be chocked.

2. Inspection process:

   - Measure and record the exhaust pipe or stack diameter. Record the ambient temperature, relative humidity and barometric pressure if the opacity meter does not record the information automatically. The information will be used to correct the opacity results.

- Perform three clean-out snap accelerations to remove any loose soot that may have accumulated in the vehicle's exhaust system.
- Within two minutes of performing the clean-out snap accelerations, begin the three official snap accelerations using the same steps as used for clean-out.
- Snap accelerations are performed by:

    a. Quickly depress the accelerator pedal to the wide open throttle position until the engine reaches the maximum governed speed and hold it there for one to four seconds.

    b. Release the pedal and allow the engine to return to idle speed for a minimum of five, but no longer than 45 seconds before starting the next clean-out snap acceleration.

    c. If the vehicle is equipped with multiple exhaust pipes, visually compare the smoke levels and determine which has the highest visual opacity. Once determined, perform the test on that pipe.

3. Test Validation:

    The snap acceleration test must be validated using the following criteria:

    - After completion of all snap accelerations, the opacity meter is removed from the exhaust pipe or stack and the meter must read to within 2 percent opacity of zero.

    - The mathematical difference between the high and low opacity results from the three snap-acceleration test cycles must be within 5 percent opacity of each other (see examples below).

Valid Test (difference 1%)	Invalid Test (difference 10%)
First snap test opacity result - 40%	First snap test opacity result - 35%
Second snap test opacity result - 41%	Second snap test opacity result - 41%
Third snap test opacity result - 40%	Third snap test opacity result - 45%

    Most opacity meters will perform this step and notify the operator of the results automatically. For additional information, consult the opacity meter user manual.

4. Correction of Test Results for Ambient Conditions:

    The opacity reading must be corrected for ambient conditions such as air temperature, relative humidity and barometric pressure. The Red Mountain opacity meter performs this function automatically for the operator. In addition, some Cal-Test units will perform this function for correction if the operator provides the ambient conditions. The Wager and Bosch units only provide the operator with the opacity reading which must be corrected with the formula specified in SAE J1667. A copy of SAE J1667 is on file with the Arizona Secretary of State and may be purchased from SAE on-line at www.sae.org.

5. Compare the Test Results to the Maximum Allowable Standards:

   When testing is complete, compare the results to the maximum allowable. The maximum allowable emissions standard for 1990 and older engines is 55% opacity. The maximum allowable emissions standard for 1991 and newer engines is 40% opacity. **The engine year is determined by the emissions control label. If the emission control label is missing, illegible, or incorrect, the test standard shall be 40%, unless a correct, legible, emissions control label replacement is attached to the vehicle within 30-days of the inspection.**

K. Diesel Visual Fuel Cap Inspection:

Verify the vehicle has a properly fitting cap.

L. Diesel Equipment Tampering:

The diesel tampering inspection is based on the original configuration of the vehicle as manufactured and consists of the following:

1. A visual inspection to determine the presence and proper installation of each required **Catalytic converter** (if applicable as manufactured);

2. A visual inspection to determine the presence of an **operational positive crankcase ventilation system** (if applicable as manufactured);

3. The above components shall be verified by referring to the "VEHICLE EMISSIONS CONTROL INFORMATION" label.

M. Special Requirements for Heavy-Duty Diesel Powered Vehicles:

As of January 1, 2004, a diesel powered vehicle with a gross vehicle weight rating (GVWR) of more than 26,000 lbs., and for which gross weight fees are paid, are not allowed to operate in area "A" unless the engine meets or exceeds 1988 EPA or CARB standards. Certificates of inspection shall not be issued to these vehicles. Vehicles operated by religious institutions, school districts, and municipalities are exempt.

The owner of a vehicle listed above should contact the engine manufacturer to see whether the engine meets the applied standards. If the manufacturer finds that the engine meets the standards, the manufacturer can provide a letter stating such which can be sent to the Department. If the manufacturer is unable to provide the required endorsement, the owner may request one from a local dealer or manager of a certified workshop that is familiar with EPA's engine standards for 1988 and newer engines. Phone numbers and web sites for engine manufacturers are listed in attachment, Diesel Manufacturer Website. An inspection can be performed and a Certificate of Inspection issued after the engine complies with the EPA or CARB standards and has been documented.

Section VI

Alternative Fuel Vehicle (AFV) Requirements

A. Definition of Alternative Fuels

1. Alternative Fuels and fuel codes are defined as follows:

   - (L) Liquified petroleum gas (LPG or Propane)
   - (C) Compressed natural gas/liquified natural gas
   - (M) 70/30 minimum blend of alternative fuel and petroleum based fuel (except alcohol)
   - (A) Alcohol if used in a vehicle prior to August 21, 1998. After that, alcohol is no longer recognized as an alternative fuel by the State of Arizona. This includes M85 and E85 Flex Fuel vehicles

2. Bi-fuel AFV means a vehicle that is capable of operating on an alternative fuel and gasoline

3. Dedicated AFV means a vehicle that solely operates on an alternative fuel.

B. Testing Requirements for Alternative Fuel Vehicles:

1. Vehicles that are powered by alternative fuels are eligible for a current model year plus two previous year exemption. (Note, this is more restrictive than the current plus four model year exemption) AFV's must be inspected in the following manner:

   - 1967 through 1980 model year vehicles must receive and pass a **loaded cruise and idle emissions test**.
   - 1981 through 1995 model year vehicles (8,500 GVWR or less) must receive and pass **a transient loaded test**.
   - 1981 through 1995 model year vehicles (8,501 GVWR and greater) must receive and pass **a loaded cruise and idle emissions test**.
   - 1996 and newer model year vehicles (8,500 GVWR or less) must receive and pass an **Onboard Diagnostic test, or transient loaded test** if bi-fuel.
   - 1996 and newer model year vehicles (8,501 GVWR and greater) must receive and pass a **loaded cruise and idle emissions test**.
   - All diesel vehicles (8,500 GVWR or less) must receive and pass a **loaded opacity test**.
   - All diesel vehicles (8,501 GVWR and greater) must receive and pass a **(J1667) Snap-acceleration opacity test.**
   - All non-diesel vehicles of a school district must receive and pass a **loaded cruise and idle emissions test**

2. **Bi-fuel alternative fuel vehicles must receive the appropriate test on each fuel independently. If a vehicle fails on one or both fuels, a complete re-inspection on each fuel must be performed.**

3. An inspection of an AFV vehicle operating on **compressed natural gas or liquified natural gas** requires the use of a correction factor of 0.61, to calculate the true hydrocarbon (HC) readings, when using an NDIR analyzer. The HC exhaust emissions must be multiplied by 0.61. Example: The HC emissions reading during the exhaust pipe emissions inspection is 200 ppm; the HC emissions recorded on the Fleet Vehicle Inspection Report/Monthly Summary would be 122 ppm, (200 X 0.61 = 122).

Section VII

Exempt Vehicles

The following vehicles are exempt from inspection requirements:

- A vehicle registered outside of Area "A" that is not used to commute to the driver's place of employment located inside Area "A"
- A 1966 model year and older vehicle
- A vehicle sold between motor vehicle dealers (wholesale)
- An Electrically powered vehicle (does not include hybrid vehicles)
- A vehicle with apportioned registration (vehicles registered in more than one state)
- A golf cart (gas or electric)
- A vehicle that is temporarily located out of state (call 602-207-7000)
- A vehicle with an engine displacement of less than 90 cubic centimeters
- A vehicle registered at the time of change of name of ownership except when:
  a. The change of ownership results from a dealer sale, or
  b. The change in registration is accompanied by the required fee for the year following expiration of the prior registration
- A vehicle registered with a current Director's Certificate
- Original equipment manufactured alternative fuel vehicles of the current or two prior model years
- A vehicle designed to operate exclusively on hydrogen
- A vehicle of the current or four prior model years, except;
  a. A reconstructed vehicle (titled as a reconstruct or special construction)
  b. An alternative fuel vehicle, as defined in Arizona Revised Statutes, and
  c. A vehicle failing an emissions inspection, whose owner elected to have the vehicle tested rather than opt out (In lieu)

Section VIII

Procedure for Completing the Fleet Vehicle Inspection Report/Monthly Summary (FVIR/MS)

A sufficient number of the FVIR/MS forms will be provided at no charge when certificates of inspection or government vehicle certificates of inspection are purchased. Additional Fleet Monthly Inspection Report/Monthly Summary forms may be obtained by visiting the Department at 600 North 40th Street, Phoenix, Monday through Friday from 8:00 a.m. to 5:00 p.m., excluding state holidays.

A. General Rules for Completing the Fleet Monthly Inspection Report/Monthly Summary:

The following rules apply to the completion of the FVIR/MS:

1. The FVIR/MS can only be completed for vehicles that have **passed** the required inspection;

2. The FVIR/MS must be completed at the time of inspection;

3. The FVIR/MS can only be completed and signed by the inspector performing the inspection;

4. All sections of the FVIR/MS must be completed. When completing items that do not apply to a particular vehicle, enter N/A in the space provided.

B. Procedure for Completing the Fleet Monthly Inspection Report/Monthly Summary:

After the vehicle has passed the emissions inspection required, obtain the FVIR/MS currently in use and record the following information:

1. All Non-diesel and light-duty (GVWR #8,500 lbs.) diesel vehicles:
   - Certificate of inspection number
   - Inspection date
   - License plate number (if applicable)
   - Vehicle identification number
   - Vehicle make - (Chevrolet, Ford etc.)
   - Vehicle model - (Camaro, Taurus etc.)
   - Vehicle model year (‘79, ‘88, etc.)
   - Analyzer or opacity meter registration number
   - Fuel type-for bi-fuel vehicles (see AFV section)
   - Idle HC readings
   - Idle CO readings
   - Loaded cruise or 2,500 RPM HC readings
   - Loaded cruise or 2,500 RPM CO readings

- Tampering Air injection system (P or N/A)
- Tampering Evaporative emissions control system (P or N/A)
- Tampering Positive crankcase ventilation system (P or N/A)
- Tampering Catalytic converter (P or N/A)
- Gas cap functional or visual test (P or N/A)
- Engine size (cubic inch or liter)
- Gross vehicle weight rating **(Actual GVWR of vehicle's certified under federal truck standards)**
- OBD test Number of unset readiness monitors (P or N/A)
- Key On Engine Off Malfunction indicator light status (P or N/A)
- Key On Engine Running Malfunction indicator light and command status (P or N/A)
- Tampering Diagnostic link connector (P or N/A)
- Light-duty diesel opacity reading (opacity reading in percent or N/A)
- Inspector license number (CF/FD/CFD)
- Inspector signature **(sign only after completing a passing inspection)**

When performing an inspection of a bi-fuel alternative fuel vehicle, use the space for two vehicle inspections, or four lines of the FVIR/MS. On the first line of the inspection record, complete the requested information: certificate serial number, vehicle description, etc. On the second line of the inspection record, enter the registration number of the analyzer, results of the gasoline exhaust emissions inspection and tampering results; do not sign the inspection record at this time. On the third line of the inspection record, write in the words "bi-fuel vehicle inspection." On the fourth line of the inspection record, enter the type of fuel and the results of the alternative fuel exhaust emissions inspection and sign the inspection. Remember, when performing an inspection of a vehicle fueled with natural gas, either compressed or liquified, the hydrocarbon (HC) exhaust emissions are multiplied by 0.61.

2. Heavy-duty (GVWR greater than 8,501 lbs.) diesel vehicles:
   - Certificate of inspection number
   - Inspection date
   - License plate number (if applicable)
   - Vehicle identification number
   - Vehicle make
   - Vehicle model
   - Vehicle model year
   - Opacity meter registration number
   - Time inspection was performed
   - Ambient air temperature at the time and location of inspection
   - Barometric pressure at the time and location of inspection
   - Relative humidity at the time and location of inspection
   - Opacity reading in percent
   - Engine size (cubic inch or liter)
   - Gross vehicle weight rating
   - Engine year

- Exhaust pipe or stack diameter (inches)
- Tampering positive crankcase ventilation (P or N/A)
- Tampering catalytic converter (P or N/A)
- Inspector license number (CF/FD/CFD#)
- Inspector signature (sign only after completing a passing inspection)

Section IX

Procedures for Certificates of Inspection & Government Vehicle Certificates of Inspection (Certificates)

A. Purchasing Certificates of Inspection or Government Vehicle Certificates of Inspection:

To purchase certificates, mail or present a completed order form (see attachments), signed by the fleet agent, along with sufficient payment to the Department.

The following rules apply to purchase certificates:

1. Certificates can only be purchased from the Department at the Vehicle Emissions Office (600 North 40th Street, Phoenix, Arizona 85008);

2. Certificates are sold in a standard lot of 50 (see attached order form);

3. Payment for certificates can be in the form of cash or check. If a check is used, the check must be payable to ADEQ;

4. Certificate order forms that are incomplete, unsigned by the fleet agent, or unaccompanied by the correct payment will be rejected.

B. General Rules for Issuing Certificates:

The following rules apply when issuing certificates:

1. Certificates can only be issued to vehicles that have passed the required inspection;

2. Certificates can only be issued to vehicles that are owned or leased by the fleet;

3. Certificates must be completed at the time of inspection (a certificate cannot be issued after the date of inspection);

4. Certificates must be issued in numerical order;

5. Certificates can only be completed and signed by the inspector performing the inspection;

6. Certificates cannot be transferred or sold to another fleet station;

7. All unused certificates can be returned to the Department for refund or used in subsequent years.

C. Procedure for Issuing a Government Vehicle Certificate of Inspection:

After the vehicle has passed the inspection required; obtain the next certificate in numerical sequence; punch out the appropriate year and month the vehicle is due for its next inspection (one-year from the month and year of the inspection); if applicable, remove the previous certificate from the vehicle; attach the certificate to the lower left corner of the rear window, as determined by facing the window outside of the vehicle, unless one of the following exceptions applies:

1. Vehicles that do not have a rear window, the sticker should be affixed to the lower left corner of the windshield.

2. Motorcycles will require the sticker to be affixed to the lower left-hand corner of the windscreen; the sticker can also be affixed to a visible place on the front or left side of the left front fork.

3. Undercover law enforcement vehicles should have the certificate placed in the vehicle's log book or file.

D. Procedure for Issuing a Certificate of Inspection:

After the vehicle has passed the inspection required, obtain the next certificate in numerical order and record the following information:

1. Vehicle identification number;

2. Vehicle model year;

3. Vehicle license plate # (if applicable);

4. Name of fleet station;

5. Certificate expiration date (one year from the date of inspection);

6. Inspector license number;

7. Fleet station permit number;

8. Inspector signature.

Errors can be corrected only by the inspector issuing the certificate. The following procedure should be used: Draw a single line through the incorrect information, make the correction, initial the correction using your first initial and last name, and record the date of the correction next to your initials.

E. Lost or Destroyed Certificates:

1. When certificates are discovered lost or stolen, the fleet owner must notify the Department in writing within 24 hours. Written notification can be done by mail however, the preferred method is by fax at 602 207-7020 or e-mail to *Osborne.Adrion@azdeq.gov*. Indicate the following:

    - The quantity of the lost or stolen certificates;
    - The serial numbers of the lost or stolen certificates.

    Failure to properly notify the Department may result in suspension or revocation of the fleet permit.

2. When the original/white of a completed certificate is discovered lost, destroyed or mutilated, a Director's Certificate may be obtained from the Department by **hand delivery** of the following:

    - The second/yellow copy or third/pink copy of the lost, destroyed or mutilated certificate;
    - The original/white of the FVIR/MS;
    - A cover letter from the fleet agent explaining the loss, destruction or mutilation of the certificate;
    - Sufficient payment.

F. Voided Certificates of Inspection

When the original/white of the certificate is voided by a fleet station, the void must be documented as follows:

1. Record the void on the FVIR/MS;

2. Match the original/white with the corresponding third/pink copy and retain it at the fleet station for two-years.

Section X

Procedure for Processing the Certificates of Inspection & Fleet Vehicle Inspection Report/Monthly Summary

The Certificate of Inspection is a triplicate form used to certify that a vehicle has been inspected and passed. The Fleet Vehicle Inspection Report/Monthly Summary is a duplicate document that contains the actual inspection record of vehicles inspected by the fleet station. The three copies of the Certificate of Inspection and the two copies of the Fleet Vehicle Inspection Report/Monthly Summary are to be distributed and/or retained as follows:

- The original/white of the certificate is submitted to the Arizona Department of Transportation, Motor Vehicle Division for vehicle registration.

- The second/yellow copy of the certificate is submitted to the Department along with the second/yellow copy of the Fleet Vehicle Inspection Report/Monthly Summary within two weeks after the end of the month in which the inspections were performed. Forward the documents to the Department at the following address: Vehicle Emissions, Inspection and Compliance Unit, 600 North 40th Street, Phoenix, Arizona 85008-6499.

- The third/pink copy of the certificate and the white/original of the Fleet Vehicle Inspection Report/Monthly Summary must be retained by the fleet station for two years after the date of inspection.

Forms & Attachments

Government & Fleet Shop - Area A

FLEET INSPECTION REQUIREMENTS CHART (*EXCEPT DIESEL VEHICLES*)

GOVERNMENT ENTITY & FLEET SHOP VEHICLES

VEHICLE CLASS GVWR & Type	*TEST TIME Idle/Cruise*	*LOADED CRUISE TEST*	*CURB IDLE TEST* *W/Foot Brake Applied*	*EQUIPMENT TAMPERIING*	*GAS CAP TEST*
1967 thru 1974 Model Year Vehicles Including AFV's (See Note) All GVWR	90Sec/90Sec	A/T-Drive* M/T-2nd gear or higher*	A/T-Drive M/T-Neutral	None	Visual or Functional w/Evaporative System
1975 thru 1980 Model Year Vehicles Including AFV's (See Note) ALL GVWR	90Sec/90Sec	A/T-Drive* M/T-2nd gear or higher*	A/T-Drive M/T-Neutral	Yes*	Visual or Functional w/Evaporative System
1981 and Newer Heavy-Duty Vehicles Including AFV's (See Note) 8,501 GVWR or greater	90Sec/90Sec	A/T-Drive* M/ T- 2nd gear or higher*	Neutral	Yes*	Visual or Functional w/Evaporative System
1967 thru 1974 Motorcycles/Constant4WD/Traction System(undefeatable)	30 Sec/None	None	A/T-Drive M/T-Neutral	None	Visual or Functional w/Evaporative System
1975 and Newer Motorcycles/Constant 4WD/Traction System(undefeatable)	30 Sec/None	None	A/T-Drive M/T-Neutral	Yes*	Visual or Functional w/Evaporative System
1996 and Newer /Light-Duty Vehicles (except Bi-fuel AFVs)	OBD	OBD	OBD	None	Functional Gas Cap Test
1981 thru 1995 Model Year Light-Duty Vehicles 1996 and Newer Light Bi-Fuel Vehicles (except Area "A" School District AFVs)	**IM147**	**IM147**	**IM147**	**None**	**Evaporative Pressure Test**
AREA "A" SCHOOL DISTRICTS-ADDITIONAL REQUIREMENT					
1981 and Newer Light -Duty AFV's	90Sec/90Sec	A/T-Drive* M/T-2nd gear or higher*	Neutral	Yes*	Visual or Functional w/ Evaporative System
1996 and Newer Light-Duty Vehicles	OBD	OBD	OBD	None	Functional Gas Cap Test

Note-AFVs=Alternative Fuel Vehicles-Bi-fuel AFVs must receive a test on each fuel

Equipment Tampering Yes* = includes Catalytic Converter/Air Injection System/Evaporative System/ & PCV System inspection
A/T-Drive*/M/T-2nd Gear or Higher* = Do Not use "Overdrive"

Vehicles are to be tested at the following times:
Government entity fleet vehicles must be tested within 12 months after acquisition by the operating entity and *annually* thereafter, during or before the anniversary month of the previous inspection. If the vehicle was exempt from testing when it was acquired, the vehicle must be tested within 90 days after the vehicle becomes subject to testing. Fleet Shop vehicles must be inspected within each 12 month period following any original registration or re-registration

FLEET INSPECTION REQUIREMENTS CHART (DIESEL)

GOVERNMENT ENTITY & FLEET SHOP DIESEL VEHICLES

VEHICLE CLASS GVWR & TYPE	MPH LOAD APPLIED	EQUIPMENT TAMPERING	GAS CAP TEST
1967 and 1974 Model Year Vehicles **4,000 GVWR or Less**	30 MPH 6.4 TO 8.4	None	Visual
1967 thru 1974 Model Year Vehicles **4,001 to 8,500 GVWR**	50 MPH 28-32	None	Visual
1975 and Newer Model Year Vehicles **4,000 GVWR or Less**	30 MPH 6.4-8.4	Yes*	Visual
1975 and Newer Model Year Vehicles **4,001 to 8,500 GVWR**	50 MPH 28-32	Yes*	Visual
1967 thru 1974 Model Year Vehicles **8,501 GVWR and more**	J1667 Snap-Acceleration Test	None	Visual
1975 and Newer Model Year Vehicles **8,501 GVWR and more**	J1667 Snap-Acceleration Test	Yes*	Visual

GOVERNMENT ENTITY & FLEET SHOP-ADDITIONAL

VEHICLE CLASS GVWR & TYPE	LOAD APPLIED	TAMPERING	TEST
1996 and Newer OBDII Compliant Vehicles **8,500 GVWR or Less**	OBD Test	None	Visual

Equipment Tampering Yes* = includes Catalytic Converter & PCV System Inspection

<u>Vehicles are to be tested at the following times:</u>
Government entity fleet vehicles must be tested within 12 months after acquisition by the operating entity and *<u>annually</u>* thereafter, on or before the anniversary date of the previous inspection. If the vehicle was exempt from testing when it was acquired, the vehicle must be tested within 90 days after the vehicle becomes subject to testing.
Non-Dealer non-government vehicles must be inspected within each 12 month period following any original registration or re-registration

Approved Gas Cap Test Equipment

The gas cap testers listed below follow the State of Arizona guidelines for the fleet vehicle emissions inspection station gas cap test. In addition to the gas cap tester, a set of gas cap adapters that will fit at least 95% of the subject gas caps is required.

STANT CORPORATION model numbers

- 12300
- 12440 (electric)
- 12400-(has been discontinued by Stant)

WAEKON CORPORATION model numbers

- FPT 27
- FPT 2600
- FPT 26-60-(has been discontinued by Waekon)

Note-EX1/EX2 after any model number above indicates that the gas cap tester was bought as a combination with the adapters

The following are the most current gas cap test adapter sets available:

- Stant 2597
- Waekon FPT25

ADEQ
Arizona Department of Environmental Quality

Janet Napolitano, Governor
Stephen A. Owens, ADEQ Director

Air Quality Vehicle Emissions

CERTIFICATE OF INSPECTION

ORDER FORM

FLEET NAME:	FLEET NUMBER:	
ADDRESS:	QUANTITY ORDERED:	
CITY:	PHONE NUMBER:	ZIP CODE;
ENCLOSED: CHECK AMOUNT #	CHECK NUMBER #	
(PRINT) AGENT NAME: AGENT SIGNATURE:	(PRINT) RUNNER NAME: RUNNER SIGNATURE:	

Instructions for ordering:

1. Complete order form above.
2. **Fleet Agent must sign authorizing the purchase.**
3. Name the person picking up the order if other than Fleet Agent.
4. Include sufficient payment **($11.50 per certificate, packets of 25)**
   Make checks or money orders payable to: **ADEQ**
5. Bring the completed order form and payment to either of the two ADEQ offices whose addresses are listed below.

NOTE:
Incomplete orders signed by other than Fleet Agent will be denied and returned.

FOR OFFICIAL USE ONLY				
AGENTS SIGNATURE:	FLEET APPROVAL:	DATE:	VERIFIED BY:	# OF PACKETS:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:			END NUMBER:	
DATE ISSUED:			DATE MAILED:	
CASHIER:			NUMBER OF PACKETS ISSUED TO FACILITY:	
RUNNER SIGNATURE VERIFIED NUMBER OF PACKETS ISSUED:				

600 N. 40th Street, Phoenix, Arizona 85008, (602) 207-7000
4040 East 29th Street, Tucson, Arizona, 85711, (602) 628-5651
Visit the Department's Web Site at www.azdeq.gov

ADEQ
Arizona Department of Environmental Quality

Janet Napolitano, Governor
Stephen A. Owens, ADEQ Director

Air Quality Vehicle Emissions

GOVERNMENT VEHICLE
CERTIFICATE OF INSPECTION
ORDER FORM

FLEET NAME:	FLEET NUMBER:	
ADDRESS:	QUANTITY ORDERED:	
CITY:	PHONE NUMBER:	ZIP CODE;
ENCLOSED: CHECK AMOUNT #	CHECK NUMBER #	
(PRINT) AGENT NAME: AGENT SIGNATURE:	(PRINT) RUNNER NAME: RUNNER SIGNATURE:	

Instructions for ordering:

1. Complete order form above.
2. **Fleet Agent must sign authorizing the purchase.**
3. Name the person picking up the order if other than Fleet Agent.
4. Include sufficient payment **($11.50 per certificate, packets of 25)**
   Make checks or money orders payable to: **ADEQ**
5. Bring the completed order form and payment to either of the two ADEQ offices whose addresses are listed below.

NOTE:
Incomplete orders signed by other than Fleet Agent will be denied and returned.

FOR OFFICIAL USE ONLY

AGENTS SIGNATURE:	FLEET APPROVAL:	DATE:	VERIFIED BY:	# OF PACKETS:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:	END NUMBER:		START NUMBER:	END NUMBER:
START NUMBER:			END NUMBER:	
DATE ISSUED:			DATE MAILED:	
CASHIER:			NUMBER OF PACKETS ISSUED TO FACILITY:	
RUNNER SIGNATURE VERIFIED NUMBER OF PACKETS ISSUED:				

600 N. 40th Street, Phoenix, Arizona 85008, (602) 207-7000
4040 East 29th Street, Tucson, Arizona, 85711, (602) 628-5651
Visit the Department's Web Site at www.azdeq.gov

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Stephen A. Owens, ADEQ Director

Air Quality Vehicle Emissions

FLEET AGENT DESIGNATION FORM

Return completed Designation form to:

Vehicle Emissions Inspection 600 N. 40th Street Phoenix, AZ 85008	OR	Vehicle Emissions Inspection 4040 E. 29th Street Tucson, AZ 85711

Type/Print Name & Title of Designated Fleet Agent: _____

Type/Print Name & Title of Designated Fleet Co-Agent: _____

is/are employed by the fleet station and accept the responsibilities of the administration and the day-to-day operation of my Fleet Emissions Inspection Station. I understand that as the owner or corporate officer, I retain full responsibility for assuring said fleet station is operated in accordance with applicable state laws and duly adopted Rules of the Department.

I also understand that having designated agents, I must:

1. Employ the person named as the fleet agent.
2. Immediately notify the Department by telephone and within seven days in writing of any changes in the employment status of designated fleet agent.
3. Cease fleet inspections if designated fleet agent leaves my employment.
4. Not resume fleet inspections until the fleet agent requirements have been met.

Signature of Fleet Applicant/Owner/Corporate Officer: _____

Type/Print Name & Title of Fleet Applicant/Owner/ Corporate Officer: _____

I herewith accept the responsibilities for the administration and the day-to-day operation of:

Type/Print Fleet Name: _____ Permit No. #_____

Signature of Fleet Agent: _____ License #:_____Exp Date:_____

Signature of Fleet Co-Agent:_____ License #:_____Exp Date:_____

Fleet Agent E-Mail Address: _____ Co-Agent E-Mail Address:_____

AREA "A" METRO PHOENIX MAXIMUM ALLOWABLE EMISSION STANDARDS (CUT POINTS)							
ENGINE	**YEAR**	**GVWR**	**NUMBER OF CYLINDERS**	**IDLE MODE**		**LOADED CRUISE (2500 UNLOADED)**	
				HC (PPM)	**CO (%)**	**HC (PPM)**	**CO (%)**
4 - Stroke	1980 and newer	8500 or less	All	220	1.20	220	1.20
4 - Stroke	1979 and newer	8501 or more	All	300	4.00	300	3.00
4 - Stroke	1979	8500 or less	4 or less	220	2.20	220	1.65
4 - Stroke	1979	8500 or less	More than 4	220	2.20	220	1.50
4 - Stroke	1975-1978	6000 or less	4 or less	250	2.20	250	1.65
4 - Stroke	1975-1978	6000 or less	More than 4	250	2.00	250	1.50
4 - Stroke	1975-1978	6001 or more	All	350	4.00	350	3.00
4 - Stroke	1972-1974	All	4 or less	400	5.50	400	4.20
4 - Stroke	1972-1974	All	More than 4	400	5.00	400	3.75
4 - Stroke	1967-1971	All	4 or less	500	5.50	500	4.20
4 - Stroke	1967-1971	All	More than 4	450	5.00	450	3.75
4 - Stroke	Reconstructed 1981 and newer	All	All	1,200	7.50	700	5.25
4 - Stroke	Reconstructed 1980 and older	All	All	1,200	7.50	1200	5.60
4 - Stroke M/C (Non-Dealer)	All	All	All	1,800	5.50	-	-
4 - Stroke M/C (Dealer)	ALL	All	All	1,800	5.50	1,800 (81 and newer)	5.50 (81 and newer)
2 - Stroke Car & M/C	All	All	All	18,000	5.00	18,000	5.00

AREA "A" METRO PHOENIX
MAXIMUM ALLOWABLE DIESEL OPACITY STANDARDS (CUT POINTS)

	MODEL YEAR	GVWR	Dynamometer Loaded Mode Horsepower	Vehicle Speed	Loaded Mode Opacity	
	1967 and newer	4000 or less	6.4 - 8.4	30 MPH	20%	-
	1967 and newer	4001 to 8500	28 - 32	50 MPH	20%	-
ENGINE YEAR		**GVWR**				**SAE J-1667 Opacity**
1967 - 1990		8501 or more	-	-	-	55%*
1991 & Newer		8501 or more	-	-	-	40%*

* Except engines identified by C.A.R.B. Technical Bulletin MSD-NGDDS-96-006

Heavy-Duty Vehicle Inspection Program

Technical Bulletin
(Ref. No.: MSD-NHDDS-96-006)

This page updated August 5, 1998.

The following is a listing of approved exempted heavy-duty engines pursuant to section 2182(e) of Title 13 California Code of Regulations:

Engines Exempted to Higher Opacity Cutpoints			
Manufacturer	No. of Engine Families	Exempt/App. Opacity	Model Years
DDC (1)	6	75%	1987-90
Hypermax (2)	2	75%	1985-91
Caterpillar (3)	2	70%	1989-90
Cummins (4)	1	75%	1988-92

(1) Series 60 DDEC I and DDEC II engine families. DDC is upgrading these engines, by recalibrating the on-board electronic controls during routine maintenance, to comply with the applicable cutpoint.

(2) This exemption applies to an aftermarket parts turbo-charger installation.

(3) Model 3176 electronic engines.

(4) L-10 engine family-CPL 1226.

These exemptions will be reviewed by ARB staff subsequent to the adoption of the new SAE J1667 specifications into regulations as required by AB 584 of 1993 (HSC 44011.6 et seq.). For further information, contact Don Chernich at (916) 322-7061 or Darryl Gaslan at (626) 450-6158.

Top of page
Mobile Source Program

Diesel Manufacturer Websites & Phone Numbers

Detroit Diesel: http://www.detroitdiesel.com/Support/Service_Support/index.asp
Phone: (732) 926-9622

International/Navistar: http://www.navistar.com/site_layout/engine/index.asp
Phone: (800) 448-7825

Mack: http://www.macktrucks.com/default.aspx
Phone # (602) 258-4500

Caterpillar: http://www.cat.com
Phone: (800) 343-7357

Renault: http://www.renault-trucks.com
Phone: (602) 258-4500

Volvo: http://www.volvo-truck.com
Phone: (800) 343-7357

Cummins: http://www.cummins.com/na/pages/en/index.cfm
Phone: (602) 257-5927

In some cases, it may be possible to modify or retrofit an engine to meet the 1988 model year engine standard.

For information regarding retrofits that have been certified by EPA, visit the following website:
HTTP://WWW.EPA.GOV/OTAQ/RETROFIT/RETROVERIFIEDLIST.HTM

For information regarding retrofits certified by CARB, visit the following website:
HTTP://WWW.ARB.CA.GOV/DIESEL/VERDEV/VERDEV.HTM

Fleet Vehicle Inspection Report/Monthly Summary Legend

CERT. OF INSPECTION 1	DATE 2	LIC. PLATE 3	VIN 4	MAKE 5	MODEL 6	YR 7	INSP. SIGNATURE 8

EQUIPMENT # 9	FUEL 10	IDLE HC 11	IDLE CO 12	2500 HC 13	2500 CO 14	A.I.S 15	EVAP 16	PCV 17	CAT. 18	CAP 19	CID/L 20	G.V.W. 21	READY 22	KOEO 23	KOER 24	DLC 25	OPAC % 26	INSP. NO. 27

1. CERT. OF INSPECTION - Certificate of Inspection or Sticker Number, used in numerical order.
2. DATE - Date the vehicle passed inspection.
3. LIC. PLATE - Arizona license plate number or NP for no plate.
4. VIN - Vehicle identification number obtained off the vehicle.
5. MAKE - Make; manufacturer, such as; Ford, GM, Toyota, etc.
6. MODEL - Model; sedan-s/d, station wagon-s/w, truck-trk, as stated on the title or registration.
7. YR - Model year as stated on the title or registration.
8. INSP. SIGNATURE - Signature of the inspector who performed the inspection.
9. Equipment # - the registered opacity meter number or infra-red analyzer number assigned by the Department.
10. Fuel - Type of fuel the vehicle was tested on. Enter: “G” for gasoline; “P” for propane; “C” for natural gas, either compressed or liquified.
11. IDLE HC - Idle HC emissions.
12. IDLE CO - Idle CO emissions.
13. 2500rpm HC - 2500rpm HC emissions or N/A when the inspection is not applicable.
14. 2500rpm CO - 2500rpm CO emissions or N/A when the inspection is not applicable.
15. AIS - Tampering inspection results of the Air Injection system. Enter Pass, P, or N/A when the inspection is not required.
16. EVAP - Tampering inspection results of the Evaporative Control system. Enter Pass, P, or N/A when the inspection is not required.
17. PCV - Tampering inspection results of the Positive Crankcase Ventilation system. Enter Pass, P, or N/A when the inspection is not required.
18. CAT. - Tampering inspection results of the Catalytic Converter(s). Enter Pass, P, or N/A when the inspection is not required.
19. CAP - Pressure test or visual inspection results of the gas cap(s). Enter Pass, P, or N/A when the inspection is not required.
20. CID/L - Engine size, either in cubic inches (circle CID), liters (circle L), or horse-power (write HP).
21. GVW - Gross vehicle weight rating as established by the manufacturer, optional on passenger cars put N/A.
22. READY - Vehicle ready to test with the appropriate number OBD readiness monitor set. 1996 - through 2000 model year vehicles, 2 or less. 2001 and newer vehicles, 1 or less. Enter Pass, P, or N/A when the inspection is not required.
23. KOEO - Results of the OBD Key On Engine Off test. Enter Pass, P, or N/A when the inspection is not required.
24. KOER - Results of the OBD Key On Engine Running test and the results of the MIL Commanded On test. Enter Pass, P, or N/A when the inspection is not required.
25. DLC - Tampering inspection results of the Diagnostic Link Connector. Enter Pass, P, or N/A when the inspection is not required.
26. OPAC % - Percentage of opacity (diesel vehicles) or N/A when the inspection is not applicable.
27. INSP. NO. – Emissions inspector’s CF or CFD license number issued by the Department

Diesel Fleet Vehicle Inspection Report/Monthly Summary Legend

CERT. OF INSPECTION	DATE	LIC. PLATE	VIN	MAKE	MODEL	YR	INSP. SIGNATURE
1	2	3	4	5	6	7	8

EQUIPMENT #	TIME	TEMP	BARO	HUMIDITY	OPACITY%	CID/L	G.V.W.	ENG YR	STACK	PCV	CAT.	INSP. NO.
9	10	11	12	13	14	15	16	17	18	19	20	21

1. CERT. OF INSPECTION - Certificate of Inspection or Sticker Number, used in numerical order.
2. DATE - Date the vehicle passed inspection.
3. LIC. PLATE - Arizona license plate number or NP for no plate.
4. VIN - Vehicle identification number obtained off the vehicle.
5. MAKE - Make; manufacturer, such as; Ford, GM, Toyota, etc.
6. MODEL - Model; sedan-s/d, station wagon-s/w, truck-trk, as stated on the title or registration.
7. YR - Model year as stated on the title or registration.
8. INSP. SIGNATURE - Signature of the inspector who performed the inspection.
9. Equipment # - the registered opacity meter number or infra-red analyzer number assigned by the Department.
10. TIME - Time of day the inspection is conducted.
11. TEMP - Temperature at the time of the inspection.
12. BARO - Barometric pressure at the time of the inspection.
13. HUMIDITY - Humidity at the time of the inspection.
14. OPACITY% - The opacity% after the correction factors in Appendix B of J1667 are utilized.
15. CID/L - Engine size, either in cubic inches (circle CID), liters (circle L), or horse-power (write HP).
16. G.V.W. - Gross vehicle weight rating as established by the manufacturer.
17. ENG YR - Year of the engine obtained from the engine year label.
18. STACK - Diameter of the exhaust pipe or stack, measured in inches.
19. PCV - Tampering inspection results of the Positive Crankcase Ventilation system. Enter Pass, P, or N/A when the inspection is not required.
20. CAT. - Tampering inspection results of the Catalytic Converter(s). Enter Pass, P, or N/A when the inspection is not required.
21. INSP. NO. - Emissions inspector's CF, FD or CFD license number issued by the Department.