

BAR Smog Inspector Exam by the numbers.

These Smog Check repeating number patterns may help you remember the information.

Patterns of 3:

- **3-Toxic Tailpipe Emissions measured by Smog Check:**
 - Hydrocarbons (HC) – unburned fuel in exhaust
 - Carbon Monoxide (CO) – rich fuel mixture (too much fuel or not enough air)
 - Oxides of Nitrogen (NOx) – high combustion temperatures
- **3-Components of Smog:** HC + NOx + Sunlight = Photo chemical Smog
- **3-Types of Smog Inspections:**
 - Two Speed Idle (TSI)
 - Acceleration Simulation Mode (ASM) (Dynamometer test)
 - OBD II Inspection System (OIS)
- **3- Smog Program Areas:**
 - Enhanced Area
 - Poor air quality; does not meet federal air quality standards.
 - Test types: TSI, ASM and OIS.
 - Basic Area
 - Less pollution than enhanced.
 - Test types: TSI and OIS.
 - Change of Ownership Area
 - Sparsely populated rural areas.
 - Test types: TSI and OIS.
 - Each program area is identified by vehicle's registration zip code.
 - Test required is determined by registration zip code, vehicle year and vehicle type.
- **3-Types of Smog Inspection Stations:**
 - Test Only Station & Star Test Only Station
 - Test and Repair & Star Test and Repair
 - Referee
- **3-Types of Smog Analyzer Equipment:**
 - Emission Inspection System (EIS)
 - OBD II Inspection System (OIS)
 - Low Pressure Fuel Evaporative Tester (LPFE)

- **3-Parts of the Visible Smoke Test:**
 - Tailpipe Idle Smoke / observe tailpipe for 10 seconds
 - Crankcase Smoke / observe PCV system for 10 seconds
 - BAR Snap Test / 3 Snaps total, final two snaps determine Pass/Fail
- **3-Snaps** are required for the Snap throttle test for both diesel and gasoline vehicles.
- **3-Seconds** is the wait time between the throttle snaps for both diesel and gasoline vehicles.
- **3-seconds** is the max time smoke can linger on a diesel snap test and not cause a failure.
 - Gasoline vehicles fail for any smoke / no linger time requirement.
- **3-Degrees:** ±3 degrees is the BAR's Pass/Fail criteria for the Timing Functional Test.
- **3-Days** is the time the EIS Analyzer and the LPFE tester require calibration.
 - Three days is 72-hours.
 - 72 degrees is the ambient temp that requires use of the cooling fan on an ASM test.
- **3-Months** 90-days is the length of time a Smog Certificate is valid.
- **3-Years** is the time BAR requires shops keep records.
- **3-Categories** of inspection results are entered in the "Other Emission Related Controls" category on the EIS Analyzer.
 - Fail for missing, modified, or tampered equipment not listed elsewhere in the EIS menu.
 - Pass for modified aftermarket emission equipment with a valid ARB Executive Order Number (EO) or a fail for emission equipment with an incorrect or no EO number.
 - Pass or Fail for all three parts of the Visible Smoke Test results.
- **3 Types** of labels used in the Smog Check Program:
 - Underhood Emission Control System Label ECS
 - Referee Label (Supersedes the underhood label)
 - Aftermarket Parts Label (Identifies aftermarket parts as Air Rescores Board (ARB) approved emission equipment).
- **3- Reasons** to reject a vehicle for a Smog Check.
 - Excessive fluid leaks in the engine, transmission, or fuel system.
 - Engine overheating or excessively noisy.
 - Unsafe drive axle tire or wheel (dynamometer test only).

- **3-Methods** of obtaining customer authorization for repairs.
 - Written authorization consists of the customer's signature and date of signature.
 - Oral authorization consists of the date, time, name of the person authorizing the repairs, and telephone number called, if any.
 - Electronic authorization consists of the date, time, name of the person authorizing the repairs, and email address or phone number (text messaging) contacted,

Patterns of 10

- **10-seconds** is the length of time required to observe the tailpipe exhaust plume.
- **10-seconds** is the length of time required to observe crankcase system for smoke.

Patterns of 72

- **72 hours** is the time the EIS Analyzer (1976 – 1999 vehicles) requires calibration.
- **72 hours** is the time the LPFE requires calibration every.
- ASM test requires the cooling fan be used if ambient temp is above **72 degrees**.

One More Important thing to Remember:

"When Prompted by the analyzer!"

- If any question on the smog exam has this choice for an answer, do not even read the question, just choose this answer! **NO EXCEPTIONS!**