



SMOG CHECK ADVISORY

Official Publication of the California Department of Consumer Affairs/Bureau of Automotive Repair

May 1998

Equipment Installations And Station Initializations Still Underway

The Acceleration Simulation Mode (ASM) program is still pushing forward, but will not be fully operational on May 1, which means that stations without fully installed BAR-97 units will not be locked out on that date. Stations with BAR-97 units can and should perform loaded-mode inspections to gain needed experience and identify bugs with the equipment. However, BAR has locked out NOx failures for the time being.

Of the more than 3,700 BAR-97 Emission Inspection System units sold, 2,775 units from 2,649 stations have transmitted an ASM test record to the Vehicle Information Database (VID), as of April 28. At press time, however, 1,021 units had not yet submitted an ASM record, as required.

In addition to the low number of units that have transmitted their required first ASM test record to the VID, some of the installed equipment is not working properly, problems with calibration of the equipment are occurring, and some BAR-97 EIS units are aborting in the middle of the smog inspection.

In a statewide survey of 215 stations conducted in late April, BAR representatives found that a total of 50 stations had not performed an ASM test for a variety of reasons, including not having fully-certified units delivered and/or installed in their shops. The survey also showed that 40 stations said they need help to perform their ASM tests; and 69 stations which had an installed BAR-97 EIS said they were experiencing equipment and service problems, and were waiting for a service call from their manufacturer.

"Because of these start-up-related issues, we are not going to lock out or penalize anyone at this time for an equipment failure," said BAR Chief Marty Keller. "We all need to have some patience with the new, more complex equipment and test procedures

because there is a learning curve for all of us."

California's experiences are not unique from those experienced by other states which have implemented a loaded-mode inspection and maintenance program. The goal is to achieve federal air quality standards and protect the long-term investment by this industry in the program. BAR intends to avoid anything that would jeopardize that investment, such as starting the program when it is not ready to meet consumer demand for smog inspections, industry expectations regarding performance reliability of the equipment, and technician readiness to perform the inspections or to repair vehicles that have failed a loaded-mode inspection.

In several Electronic Transmission (ET) messages, BAR's Engineering Unit urged stations to send their first ASM test to the VID, which signals a station's readiness to begin ASM testing. If stations are unable to perform the first ASM test, they should contact their equipment manufacturers and ask them for assistance.

"We're asking all stations to be vigilant and watch for other ET messages which will give them the most immediate information about the start date for ASM testing," Keller added. "I know all of us want a program that is successful in cleaning up the air, meets consumer expectations regarding convenience, and transitions smoothly from the BAR-90 program. I fully expect that we will be able to resolve these issues with the equipment manufacturers and industry and start this program within the next couple of months."

As more stations come on-line and the equipment glitches are worked out, stations will receive ET messages about the status of the installation and initialization of stations, and BAR expects to issue a special bulletin when the requirement for ASM testing begins. ➔

Applications For Test-Only Stations Must Meet State Requirements

While Envirotest Systems Corp., an international emissions testing firm, and ARCO, an international petroleum company, recently announced an agreement to operate up to 40 Test-Only stations with a total of 80 lanes in California, DCA/BAR has yet to receive applications to do so from the firms.

"When we receive applications for the proposed Test-Only stations, BAR will evaluate them based on the criteria established in the California Code of Regulations, including the ownership interests," said BAR Chief Marty Keller.

Under Test-Only station regulations, a Smog Check Test-Only station owner is prohibited from having ownership, corporate, or financial interest in a Smog Check Test-and-Repair station within a geographical radius of 50 miles of the owner's Test-Only station. Likewise, a Smog Check Test-and-Repair station owner is prohibited from having ownership, corporate, or financial interest in a Smog Check Test-Only station within a geographical radius of 50 miles of the owner's Test-and-Repair station.

Among other requirements, Test-Only stations are also prohibited from referring vehicle owners to particular stations for emissions-related repairs, and are required to provide consumers with a BAR-created list of Smog Check stations licensed to perform those repairs.

According to the Envirotest/ARCO announcement, the firms will operate in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. They added that they plan to open in 10-station increments at 40 testing stations with a total of 80 lanes. The new stations are intended to help the state fulfill its mandate to send 15% of vehicles in the Enhanced Areas to Test-Only Stations. ➔

FOUR BAR-90 UNITS FOR SAN DIEGO COUNTY

Four BAR-90 Test Analyzer Systems seized in three separate undercover investigations conducted in 1997 were recently donated to three schools and the City of Oceanside by the Department of Consumer Affairs/Bureau of Automotive Repair (DCA/BAR).

Torrey Pines High School, Ramona High School, Cuyamaca Junior College, and the City of Oceanside each received a BAR-90 unit. The analyzers were valued at \$20,000 each, and had been seized from Smog Check stations that had been convicted of or admitted committing fraud, and were forced to surrender the BAR-90s.

"There is no better use for these units," said BAR Chief Marty Keller. "At a cost of \$20,000 per unit, these schools could not afford to buy them, and our donations will provide valuable training tools for California's future Smog Check technicians".

The BAR-90 unit presented to the City of Oceanside will be used to conduct emissions inspections and help diagnose needed repairs on city fleet vehicles, and will help the city save tax dollars on a capital expense, Keller added. ➔

CORRECTIONS

In the March 1998 edition, we published a story that said fuel cap testing would be required statewide on July 1. Fuel cap testers capable of interfacing with the BAR-97 Emission Inspection System (EIS) will be required when ASM testing begins (see lead story on page 1). Currently, the only approved stand-alone fuel cap tester which is compatible with the BAR-97 EIS units is the Stant Model 12440.

In addition, in response to related questions from stations in the non-Enhanced Areas of the state, fuel cap testing will be required as soon as the BAR-90 software update is completed -- probably in the late summer or early fall of this year. This will apply to stations located in Basic Areas and Change of Ownership Areas. Pay close attention to ET messages from the BAR on the exact start date for fuel cap testing in these areas. ➔

Hundreds of Smog Technicians Ready to Begin ASM Testing and Repair

More than 6,000 Smog technicians across the state have successfully completed the 8-hour transition class, and at press time, more than 400 had completed the 20-hour update course.

"About 85 percent of technicians taking the 20-hour update course are passing," said Wayne Brumett of BAR's Manuals and Publications Branch.

"Most of the comments (from technicians) are that the classes are real world."

All Advanced Emission Specialists (EA) technicians must show proof of completion of the 20-hour update course on their application for license renewal if their license expires *after June 30, 1998*. Likewise, technicians applying for a new EA license must also show proof of completion of the 20-hour course, if their application is postmarked *after June 30, 1998*.

Tim Neumann, a technician for 30 years who is currently employed at Automotive Performance Center in San Marcos, completed his 20-hour update at the California Institute of Technology in San Marcos. He said he found the classes very informative.

"There was a lot of hands-on. We actually pulled cars in and put them on the dyno," he said. "It sticks with you a lot longer when you do it than when you just read a book about it."

Camarillo technician Jack Berenstein completed his classes at the Snap-On/Sun facility in Chatsworth and also found the training interesting, primarily because there was a lot of discussion about NOx and hands-on use of the Digital Storage Oscilloscope (DSO).

"I had used one (DSO) previously, but it was helpful to learn the voltage and time ranges," he said. "It's just a more accurate diagnosis because you're able to see more of what is happening rather than just the numbers that are changing."

A DSO is a two-dimensional voltmeter that displays measured voltage and time in graph form. Although technicians have been using engine analyzers with built-in oscilloscopes to test ignition circuits for many years, small laboratory oscilloscopes are now being used effectively to find difficult and intermit-

tent driveability problems and to gauge the overall integrity of electrical circuits.

Rudy Deocampo, a technician at McDeo Motors in Anaheim, took his 20-hour training from SPX in Anaheim. He said he felt enlightened about the new diagnostics, and believes almost everything in the classes was useful.

"The BAR-97 EIS is the most important part," he said. "I learned how to diagnose and repair emission problems on Gross Polluter cars in a fast way so you don't waste a lot of time and the consumer does not pay so much."

A former logger who has only been in the automotive repair business for about four years, Calvin Montgomery from Auto Truck Service Center in West Sacramento said he now has a better understanding of NOx and how to diagnose problems as a result of the classes he took at Cosumnes River College in Sacramento.

"I thought it was very good myself; they covered ground that was new for me," he said.

Although he believes strongly in the training, Montgomery's boss, Jerry Harter, said he does not plan to get into the Smog Check program. Instead, he is specializing in servicing fleet vehicles 8500 GVWR and above, which do not require a loaded-mode test on a dynamometer.

In addition to the information he learned, Michael Crawford of C&C Automotive in Escondido said he was most impressed by the "hands-on" aspects of the 20-hour training. He also strongly advocated the idea of continuing education for technicians and elimination of the retest for technician license renewal.

He especially appreciated being able to use the DSO in class, interacting with other technicians who were able to help each other, and the flow chart outlining diagnostic procedures to follow.

"We need more classes like that and less testing," he said. "It was more real world."

Both David Jones and Mike McLaughline of Sterling BMW in

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ISSUES & ANSWERS

The Issues & Answers column is for readers to ask questions about topics that are of general interest to the auto repair industry and the Smog Check program. Answers to your questions will be researched and published here. You are encouraged to submit your questions to:

**SMOG CHECK ADVISORY
P.O. Box 188978
Sacramento, CA 95818**

All questions must be accompanied by a name, address and telephone number, and will be verified before publication. Questions will be answered and published on a space available basis. — THE EDITOR

To Our Readers: In a recent letter to this column, Mr. David P. Trocasso of Riverside offered his experience in testing 1984-86 GM 8th VIN digit "Y" vehicles that have a pattern failure at the 2500 rpm emissions test. He wanted to advise his fellow technicians using BAR-90 machines to begin the inspection, perform the vehicle selection, visual and functional checks, and then perform on-road preconditioning. Finally, he advised technicians not to shut the vehicle off prior to attaching the tach lead, inserting the probe and performing the emissions test.

Editor's Response: We have good news for Smog Check technicians inspecting the 1984-86 GM VIN-Y vehicles in Enhanced Areas. The BAR-97 properly tests the GM VIN-Y making a visit to a Consumer Assistance and Referee Center unnecessary. The Acceleration Simulation Mode (ASM) test allows the testing to occur while the vehicle is in gear, eliminating the pattern failure. For these vehicles, the BAR-97 two-speed idle test procedure has been modified to perform sampling prior to the occurrence of the pattern failure.

While BAR only allows procedures established in the Smog Check Inspection Manual and the BAR-90 and BAR-97 software to be used, the key benefit of Mr. Trocasso's procedure is running the engine for the 2-1/2 minutes prior to beginning the emissions portion of the inspection. BAR permits and recommends this delay when testing GM VIN-Y vehicles.

According to Mark Duewel of BAR's Engineering Unit, there are two



Roadside Emissions Teams Honored As Employees of The Month

All 12 members of BAR's Roadside Emissions Teams were collectively honored as Employees of the Month in a ceremony held recently in Southern California.

"For months these teams have been consistently and relentlessly collecting the data along the streets across the state to establish an accurate baseline of data for the new Smog Check program," said BAR Chief Marty Keller. "They have done an outstanding job under some very unpleasant conditions and are truly deserving of special recognition."

Working seven days a week and 12 hours per day, the research teams tested more than 12,000 vehicles to complete the baseline survey that will be used to measure the results of the BAR-97 Smog Check program.

Pictured with Chief Marty Keller (back row center) are Employees of the Month (left to right): Ted Lenzie, Tim Toy, Doug Juarez, Mike Stubblefield, Francisco Hernandez, Miguel Victorino, Gerardo Flores, Amrick Chima, Jeff Santos, Jim Rose, John Szalach (Bill Sear, not shown).

situations that can cause this pattern failure during BAR-90 testing. The first occurs when the vehicle has not been allowed to go "closed loop" during sampling because the computer has not sensed the engine running for at least 156 seconds. Unfortunately, the second one cannot be overcome using BAR-90 software. The diverter valve is commanded to divert air-pump air from the catalytic converter to the air cleaner after 25 seconds when the vehicle is not in gear and the engine exceeds 1200 rpm during that period. This diversion timing coincides with a critical emissions sampling period, which can cause an emissions failure.

Since BAR-90 software has not changed recently, we still recommend sending failed GM VIN-Y vehicles in Basic Areas to the Referee so the vehicle can be tested without a pattern failure occurring. Referee analyzer software allows 2500 rpm emissions sampling to occur prior to 25 seconds, when the pattern failure normally occurs. ➡

Hundreds *Continued from page 2*

Newport Beach took the training, but had different opinions on how valuable it was.

Even though most of the BMWs the men work on pass Smog Check, Jones said he thought the diagnostics with the DSO, O₂ sensor, and catalytic converter testing were most valuable.

McLaughline said he had recently completed other training in December and was up to speed on NO_x and the causes of NO_x failures, so the 20-hour update was old news to him. He did enjoy using the DSO, however, and being able to see what was happening with the signal on a bar graph.

For Juan Sandoval, owner of Automotive Center in San Fernando who took his classes at Snap-on/Sun in Chatsworth, it was a pretty exciting course and he plans to take more classes.

"We mainly learned how NO_x will work and the way cars are going to be reacting," he said. "I also used the DSO for the first time. It's much easier and is more exact." ➡



is published by the

California Department of Consumer Affairs' Bureau of Automotive Repair 400 R Street, Sacramento, CA 95814

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- DCA Cashiering (916) 322-7002 DCA Licensing (916) 322-4010 ET Help Desk (916) 255-4476 MCI (800) 731-SMOG (Then press 5 for technical support)

Consumer Assistance and Referee Center: (800) 622-7733

DCA HOTLINE: (800) 952-5210

Little Scoops

- The following three stand-alone fan models are approved, and may be used with the following BAR-97 Emission Inspection Systems: Snap-On: Air Max Fans (Model #AM16STS); ESP, SPX, and Worldwide: Leading Edge, Inc. (Model #LCHDC30); and Worldwide: Airmaster Fan Co. (Model #60047; serial #210-97). The fans are required to be used when temperatures in Smog Check stations reach 72 1/2 F to avoid damage to vehicles that could overheat while being tested. A couple of reminders for Gold Shield Guarantee Repair stations...remember to do an after-repair test for your customers before you send them on to a Test-Only or Gross Polluter Certification (GPC) pilot station to make sure they will pass when it really

- counts. This will avoid having your customers return to you with complaints about the repairs you performed. And don't forget to tell your customers that they will likely have to pay for the GPC certification...it is usually not a free retest! For those who don't have access to BAR's Web Page at: www.smogcheck.ca.gov — check with your local BAR field office for a list of the 113 Gross Polluter Certification (GPC) pilot stations or the list of 68 Test-Only stations. It will come in handy when you have to refer your customers for certification at these facilities. As you know, the price of the Smog Check certificate has increased from \$8 to \$8.25 effective April 15, 1998, and the

- MCI cost per Electronic Transmission (ET) call increased from 11 cents to 30 cents, effective in the March 26, 1998 billing cycle. Since it takes two calls to complete a Smog Check through ET, the cost per transaction increased to 60 cents. This just in from BAR's Fleet Operations Branch: Even though government and public agencies can meet smog inspection requirements by sending test results to the Vehicle Information Database (VID) through the ET system, they are still required to submit an Annual Report to BAR (Health & Safety Code Section 44019(c)). Licensed Smog Check stations should advise representatives of these agencies that the report is still required. Questions should be directed to Fleet Operations at (916) 255-1336.