

Inspection Update

A Publication of the Massachusetts Enhanced Emissions & Safety Test Program

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RMV Takes Progressive Approach to Enforcement

Having the responsibility to enforce *Enhanced Emissions & Safety Test* program regulations and to prevent fraud by program participants, the Registry of Motor Vehicles (RMV) has long used a system of progressive enforcement against violators.

This means the RMV does not throw the book at an inspector or station the first time they do something wrong. But if an inspector or station continues to violate program regulations, or, worse, uses deceptive practices to circumvent rules and established procedures, the RMV does not hesitate to levy harsh penalties.

Mark C. LaFrance, RMV project manager for Vehicle Safety and Compliance, explained that the agency's progressive form of discipline can run as follows:

First minor violation, warning; second violation, seven-day suspension; third, 14-day suspension; fourth, 30-day suspension; and, for a fifth offense within a three-year period, revocation of inspector's license or station's license to inspect vehicles.

"If we can give you a warning and have you get back on the right track, we've achieved our goal, and all will be forgiven and, well, almost forgotten," LaFrance said.

"If, on the other hand, you turn up on our radar screen a second and a third time, we're going to take a 'special interest' in you. The more you mess up, the less likely it is we'll give you a break, and the more likely it is we'll monitor your performance closely for a long time."

Only a small number of inspectors and stations have received the ultimate sanction, revocation of a license, since the program began on October 1, 1999. These were the worst repeat offenders.

Just behind them on what LaFrance calls "the outrageousness scale" were around 20 stations that he says could have been hit with either six-month suspensions or revocations, but which made last-ditch, successful appeals to RMV to stay in the

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MassDEP and RMV Announce Two-Year I&M Contract Extension

Citing big gains in the reliability of emissions testing equipment, the Massachusetts Department of Environmental Protection (MassDEP) and the Registry of Motor Vehicles (RMV) announced on May 30 that Massachusetts is extending its *Enhanced Emissions & Safety Test* contract for two years, until September 30, 2008.

Applus+ has agreed with the agencies to keep the current reliability standards, and to:

- Improve workstation repair response by providing service on Saturdays for inspection stations that are open for four hours or more,
- Meet performance standards for workstation maintenance and repairs identified by digital and MassDEP audits,
- Upgrade workstation software to correct gas bench response times and VMAS flow adjustments,
- Reformat the Vehicle Inspection Report and implement a communications plan to encourage motorists to use a Registered Repairer for emission control system repairs,
- Update the "Mass Module" repairer training course by November 2006, and add a new course on Web resources for repair technicians,

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New Modules Will Reduce Downtime

False failures during daily gas calibrations and needless related downtime should be soon be a thing of the past in the *Enhanced Emissions & Safety Test* program.

In an effort to improve the accuracy and reliability of the calibration process, I&M program contractor Applus+ Technologies will install new gas modules free this summer at the 1,500-plus Massachusetts inspection stations equipped with gas benches.

New gas modules are being introduced to eliminate time-consuming problems that can occur when gas calibration bottles run low, namely failures to calibrate, erratic response times, and incorrect data produced by erratic response times.

"Today, when the pressure in a gas bottle drops below 15 pounds per square inch (PSI), the response times for gas calculations will slow down, and the analyzer will calculate to an incorrect value," said **Terry Hayes**, deputy program manager for Applus+ Technologies. "If the response time value is exceeded, the calibration will stop.

"The inspector will usually respond to the failure by trying again and again to do the calibration, without success. He'll end up putting in a service call. The service person will show up and quickly determine that a new gas bottle is needed. But, in the meantime, no cars were inspected."

When the new gas modules are in place, gas calibrations will be prevented as soon as the pressure in the bottles goes below 15 PSI, and a screen prompt, "High Gas Not Detected," will immediately appear, along with a message that the bottles have become unusable and must be replaced.

The modules have been designed to ensure both true response times during calibra-

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State Always Sifting Test Data for Evidence of Wrongdoing

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program. "In those cases, we allowed them to stay only if they would accept, and pay for, the installation of a video monitoring system (VMS) in their stations," he said.

These systems, which cost about \$1,300 per unit, enabled staff at the Marlborough headquarters of program contractor Applus+ Technologies to peer inside these stations at any time and see if inspections were being done properly.

"Depending on the seriousness of the infractions involved, the VMS was kept operational for between 60 days and six months," said LaFrance. In roughly three out of four such cases, the stations turned their performances around. The other 25 percent wound up leaving the program, voluntarily or otherwise.

Disciplinary action always begins with the issuance of a violation, which RMV defines as a "report of alleged impropriety," against an inspector and an inspection facility owner or manager.

A violation may be issued only to a station, but never only to an inspector.

"If an inspector gets a violation, the station owner or manager is automatically going to get one too," LaFrance said. "But there are times when a station will receive a violation, say for inadequate signs, and an inspector will not be cited."

Violations typically originate from four sources:

- Motorist complaints
- On-site inspections by RMV field investigators

- Covert vehicle audits
- Reviews of electronic vehicle inspection records

RMV and the Massachusetts Department of Environmental Protection use special number-crunching software to conduct constant digital audits of the voluminous inspection records generated by program computers.

"It never ceases to amaze me what we can, and do, find in those records," said LaFrance.

RMV field investigators personally deliver all violation notices to recipients. These notices cite the regulations allegedly violated and describe the alleged wrongful actions involved. Inspectors and station owners or managers are always asked to acknowledge, in writing, receipt of the violations

Periodically, RMV's five field offices around the state forward violation reports to the agency's Boston headquarters, where they are reviewed by the Vehicle Safety and Compliance Services Department.

For every violation, RMV basically has three options, explained **Judith Dupille**, Director of Vehicle Safety and Compliance Services. It can:

- File it, which means there will be no immediate action. However, that violation could figure in some future action against the inspector and station.
- Send a warning letter to the inspector and station. Typically, these letters state that an impropriety has been recorded, and that, if it is ever repeated,

the agency will take disciplinary action against them.

- Send the inspector and station a letter telling them to appear at a hearing on the allegation.

Hearings on violations are "administrative" in nature, Dupille pointed out. "It's not like a court of law. We don't have to prove anything beyond a reasonable doubt." See *accompanying article on four recent RMV hearings, pages 4 and 5.*

Vehicle Safety and Compliance Services hearing officers conduct approximately 1,000 such hearings annually, each lasting 30 minutes on average.

"At every hearing, the officer goes over the allegation with the alleged violator, and gives the accused an opportunity to tell his or her side of the story," LaFrance said. "Often, the person will own up to the mistake and apologize.

"But, in any event, it's usually clear by the end of a hearing if the subject was responsible for the violation, or not."

Even when an inspector and station are found at fault after a hearing, RMV may decide to place the charges on file or send a warning letter to the subject. Just as likely, Vehicle Safety and Compliance Services will decide to suspend the station and/or inspector for a week, if not more.

Usually, the department makes a disciplinary decision within two weeks of a hearing and subsequently informs the subject of the decision in writing.

Although Dupille and her colleagues encounter violations and outright fraud in the *Enhanced Emissions & Safety Test* program on a fairly regular basis, they say they have never been discouraged about the overall conduct of program participants, nor have they ever doubted the worth and effectiveness of the program.

"When we look at I&M operationally, we hope to see inspectors and stations following correct procedures and fulfilling their obligations to customers, the environment and the safety of the public," Dupille said. "And, for the most part, that is what we actually observe."

LaFrance said, "There is only a relatively small number of stations presenting challenges to us, enforcement-wise. By and large, we have an excellent network of inspection stations, and they do an outstanding job." ■

Note: An article on page 3 provides additional information and observations on RMV enforcement practices.

I&M Contract Extension *continued from page 1*

- Continue improving workstation calibrations and program data, and
- Revise the protocol for inspecting heavy duty vehicles to require that parking brakes are "off" and wheels are chocked during opacity tests.

The extended contract includes schedules for each requirement and financial incentives to help ensure that Applus+ meets them.

The contract extension does not affect either the inspection fee or the shares paid to the inspection stations and Applus+.

State audits of the emissions testing equipment in 2003 and 2004 revealed significant reliability problems. In June 2004, a contract amendment established strict reliability standards.

In response, Applus+ replaced half of the workstations and upgraded the rest. Since reporting work complete in February 2005, Applus+ has consistently met the reliability standard that requires 90 percent of critical equipment components to pass MassDEP audits.

Inspection station agreements with Applus+ provide for continued operation if the contract is extended. Applus+ will provide stations with additional information. If you have questions, please contact the Station Hotline at 877-297-5552. ■

Field Investigators Shut Down Stations On the Spot for Passing Unsafe Vehicles

When the safety of the public is endangered, RMV enforcement of *Enhanced Emissions & Safety Test* regulations can be extraordinarily swift and harsh.

"If one of our field investigators sees a station passing an unsafe vehicle, he has the authority to shut the station down on the spot as a threat to public safety," said **Mark C. LaFrance**, RMV project manager for Vehicle Safety and Compliance Services.

"We can't allow unsafe vehicles to go out on the roads, have a mechanical failure, and cause an accident where people are injured, or even worse."

When a station is hit with an immediate cease-and-desist order, that order remains in effect at least until RMV holds a disciplinary hearing on the matter, which can be anywhere from two to four weeks.

Safety-related shutdowns occur fewer than 20 times a year, according to LaFrance, who also serves as RMV manager of the *Enhanced Emissions & Safety Test* program.

Recently, Inspection Update interviewed LaFrance and **Judith Dupille**, director of Vehicle Safety and Compliance Services, on enforcement and related topics. An accompanying article (Pages 1 and 2) explores the progressive nature of RMV enforcement from the perspectives of these veteran managers, but not every interview highlight, such as the following, could be covered in that article:

RMV Field Investigators Know Their Turf Very Well

RMV maintains field offices at five locations around the state, out of which 23 field staff operate. The staff includes five regional supervisors, five assistant supervisors and 13 field investigators, two to three per region.

While field investigators generally take assignments within a region on a rotating basis, they tend to stay in a particular region for long periods. "The longer an investigator works in a region, the better they feel they have for the stations operating there, and the better they become at detecting improper testing procedures and fraudulent practices," said Dupille.

"With our field staff," Dupille said, "one of our major objectives is consistency of approach across the state. We want to be investigating and punishing violations the same way in each of the five regions."

In program enforcement, RMV does not want one region concentrating on a particular aspect of the *Enhanced Emissions & Safety Test*, say improperly tinted windows or loud exhaust systems, that the other regions are not also focusing on, LaFrance said.

Agency's Preferred Approach: To Encourage Good Behavior

RMV "strives for mutual respect in all interactions with stations," Dupille said. "We set forth our parameters and goals, and we make it clear what we expect from the stations. But we also make it clear that we don't want to stick it to them. We just want them to do the best job possible."

LaFrance said, "We support the work of the inspection stations and the vehicle inspectors. We're always ready to help them do their jobs."

As enforcers of necessary standards, Vehicle Safety and Compliance Services folks have the attitude of a good teacher or coach. "No one is ever going to be punished by the Registry for an honest mistake," Dupille emphasized.

Transfer-Related Inspections Frequently Turn Contentious

RMV headquarters "receives a lot of complaints from motorists," LaFrance reported, "and we try to follow up on every one."

But an investigator won't come knocking on your door as a result of an anonymous call. It is RMV policy to investigate only written, signed complaints.

Most frequently, motorist complaints arise from problems or misunderstandings that occur during transfer-of-ownership inspections.

"It's always important to do a thorough inspection, but it's never more important than when a motorist is acquiring a used vehicle," said LaFrance. "The inspector has a big role to play in protecting consumers when they're making a very big purchase."

Good Communication Heads Off Complaints

In many cases, complaints investigated by RMV could have been avoided if stations had used good customer service skills, Dupille believes.

"I don't want people to think every time a motorist complains, we issue a violation," she said. "In fact, we see many complaints that could have been avoided altogether if the inspector or station owner had commu-

nicated properly with the customer. In those instances, we end up trying to smooth out the misunderstanding between the motorist and the shop."

Auditors Comb Test Data for Patterns of Non-Compliance

Conducting digital audits of inspection records, RMV looks for abnormal patterns, such as an inordinate number of two-speed idle tests.

"If we see a pattern of non-compliance, we'll definitely take a close look at that station," LaFrance said. "Part of that will involve an intense review by a field investigator. He will document not only what's going wrong there, but also what has gone wrong as far back as we can see – and we can see a long way back. The amount of data we have access to is overwhelming."

Documentation like that awaits almost every station and/or inspector summoned to an RMV disciplinary hearing.

Investigators Are Patient In Pursuit of Wrongdoing

Sometimes, RMV will accumulate a great deal of information about a particular station through digital audits and field investigations, but decide the facts aren't quite clear or compelling enough to proceed. All such information will be retained indefinitely, however.

"That way, if a problem comes up (at that station) a year or two later, we'll be able to combine the old information with the new to build a stronger case," Dupille said. "We're great believers in building a history, a chronology of suspicious events, if you will."

Two Many Offline Tests Will Arouse Suspicions

One of the many patterns of non-compliance that RMV looks for is a high percentage of offline tests. Another, believe it or not, is a high percentage of failures.

"You might think a high failure rate at a station is a good thing because it shows they're doing meticulous inspections, and that might be, but it can also show they're taking advantage of customers by making them pay for unnecessary safety repairs," LaFrance said.

Covert Vehicle Often Used To Put a Case Over the Top

Another powerful weapon in the RMV

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The Wheels of Justice Turn Quickly for The

The next time you're tempted to break or circumvent the rules of the *Enhanced Emissions & Safety Test* program, consider this:

If you do, there's a good chance you'll find yourself one day in a room at the Registry of Motor Vehicles (RMV) trying to explain your actions to a hearing officer.

Judging from a recent round of RMV hearings, that's not a comfortable place to be.

An *Inspection Update* reporter was given the opportunity to attend four RMV hearings at the agency's Boston headquarters, conducted over a period of two hours on a mid-April morning. In each case, the subject wound up quickly admitting his or her guilt – so clear was the evidence – and just as quickly trying to focus the proceedings on how to improve future performance.

The hearing officer was kind enough to help the subjects over their embarrassment, but relentless enough to drive home the seriousness of their offenses. Each offender left the room knowing he or she was on thin ice with RMV.

This article contains accounts of those four hearings, minus information that might suggest their identities and places of business. Each account concludes with the disposition of the case by RMV's Vehicle Safety and Compliance Services Department. Customarily, the department hands down a decision within two weeks of a hearing, and informs the subject of the result by mail.

CASE NUMBER 1

ALLEGATIONS: A station was accused of fraudulent practices and failure to perform a required emissions test following a digital audit that uncovered a discrepancy between the vehicle identification number (VIN) entered by the inspector and the VIN transmitted to the workstation by the vehicle's OBD II computer. Both the station manager and inspector were summoned to the hearing.

DISCUSSION: After the hearing officer summarized the evidence, the inspector admitted he had helped a friend whose truck had a "check engine" light on to obtain a sticker by connecting the station's analyzer to a similar vehicle that had recently passed an OBD emissions test.

"That's fraud," the hearing officer said. "I could suspend you and your employer for 180 days. Do you know that?"

"Yes, I understand," the inspector said.

"You did it for your buddy," the hearing officer said, "but I don't see your buddy here. He has a truck that's a polluter, and you just plugged it in like there was no problem and ran a fraudulent test. You hurt the environment and you jeopardized your employer."

"I understand."

"Have you removed the fraudulent sticker from your buddy's truck?"

"No, I left it on."

At that point, the hearing officer turned to the station manager and said, "How do you manage your inspectors? Was there a repair order done for this vehicle test?"

"No," the manager said. "There was no repair order for this vehicle. This test was done on a Saturday."

"You need checks and balances to make sure this doesn't happen again," said the hearing officer.

"We've taken actions to make sure this does not happen again," the manager said. "All our inspections now have to be accompanied by a repair order."

As the hearing was coming to a close, the hearing officer said to the inspector, "Remember, you have no friends when you're in that bay, working on a state program."

DISPOSITION: RMV suspended the station for fraudulent practices, and suspended the inspector until he successfully completes a retraining program.

CASE NUMBER 2

ALLEGATIONS: A station owner-manager was accused of violating I&M program security by allowing an unlicensed inspector to use his license number to conduct a test. An RMV field investigator making an unannounced visit watched the employee, became suspicious, asked for his identification, and discovered he had no license. A 1992 Nissan parked on the premises also aroused the investigator's interest because it had a valid sticker even though its body was badly rusted and corroded. The Nissan had passed inspection the previous month at that station, the investigator noted.

DISCUSSION: "Why did you give this guy your license number?" the hearing officer demanded.

"I was going to be there watching him," the owner said. "I was training him."

"You can't do that," the hearing officer said. "It's not allowed. Never."

"I know. I know," the owner said quietly. "He's no longer working for me."

Due to security concerns, RMV ordered the owner to obtain a new PIN (personal identification or license number) immediately after the hearing.

"It's very hard to have just one person doing inspections all the time," the owner said, referring to himself. "I'm working six days a week. I can't keep up this pace indefinitely."

"You need some help," the hearing officer said. "But you have to go about it in the proper way."

The owner said his son had recently joined the business and was going to be trained and licensed to inspect vehicles.

Regarding the rotted-out Nissan, the owner defended his decision to issue a sticker because the car passed the emissions test in January. Further, he claimed, the body of the car was being repaired at his shop.

"The customer came to me and said, 'If it can pass the emissions test, I'll pay to fix the rot.' It passed emissions and I put a sticker on it," the owner said. "Then I started work on the body. It was a lot of work. It was taking a long time, but the car never left my station with that bad rust. It's still at my station."

Cases Who Violate I&M Program Regulations

"That's no good," the hearing officer interjected. "The day you issued the sticker, you said it was a passing vehicle, and it was not. You can't put a sticker on a vehicle that is not in a condition to pass."

There was a better way, a legal way, to deal with the situation, the hearing officer pointed out:

"You should have done a Mass 99 test to determine if the car would have passed emissions. It's recorded on the VID (Vehicle Information Database). It's free, and you get the opportunity to do a structured test on a vehicle.

"If the Nissan had passed the Mass 99, you could have told the customer it was good to go forward with the body work."

"I did not even think of doing that," the owner said.

DISPOSITION: RMV issued stern warnings to the station for violating security, for having an unlicensed person perform an inspection, and for failing to issue a certificate of rejection to the rotted-out Nissan. It also issued a stern warning to the owner in his capacity as an inspector.

CASE NUMBER 3

ALLEGATION: A station was accused of wrongly subjecting five vehicles to two-speed idle tests when they should have received emissions tests on a dynamometer. The station had been "flagged" during a digital audit on account of the high frequency of two-speed idle testing there in January.

DISCUSSION: The hearing officer reviewed the audit results with the station owner and said, "These vehicles had the wrong test. All five should have gone on the dyne. What happened?"

The owner showed signs of puzzlement. He said, "I do not remember exactly what happened. I had been having trouble with my dyne -- trouble getting rear-wheel-drives to work on it safely. But I don't think I would have preferred two-speed idle tests. I don't know. It's easier for me to test cars on the dyne."

A two-speed idle test is not a substitute for a dynamometer test, the hearing officer told the owner, because the two-speed idle does not measure nitrogen oxide (NOx).

"NOx is a big pollutant that the Massachusetts program goes for," he said. "It's the major contributor to ground-level ozone and smog."

"I want to comply with the laws," the owner said. "I want to learn from my mistakes. It doesn't pay to do things wrong in this program."

The owner claimed he had requested service for his dynamometer because it wasn't functioning properly when some heavy, rear-wheel drive trucks, like those used in the construction trades, were tested on it.

However, he announced, "The problem with my dyne, I'm happy to say, has been solved."

The hearing officer said, "Your safety and your employees' safety are important to us. We do not expect anyone ever to jeopardize his safety in the course of performing an inspection. If the vehicle is dangerous, it's a turn-away."

He added, "You could have given these five trucks two-speed idle tests only if they were exempted for being all-wheel drive or full-time, four-wheel drive (with or without traction control, non-disengageable traction control, or handicapped-equipped).

"Or, they could have been exempted for being too heavy for the dyne -- that is, if they were over 10,000 pounds. But the analyzer at your station was prompting you to put them on the dyne, which means they had to weigh between 8,500 and 10,000 pounds."

DISPOSITION: RMV issued stern warnings to the station and inspector who tested the five trucks for falsifying recorded data and failing to perform required emissions tests.

CASE NUMBER 4

ALLEGATIONS: A station and inspector were accused of running two consecutive OBD II emissions tests on the same new vehicle, but entering data on the second test for an older car that probably was not in the station at the time. The new car was used as a "ghost vehicle" to create a passing test record for the second car, but the signs of deception were easily detected through digital auditing. RMV speculated that the inspector printed two stickers after the first test, pocketed one, and later gave it to a friend or acquaintance who owned the second car. Both the station manager and inspector were summoned to the hearing, but only the manager attended. The inspector showed up after the proceedings had concluded.

DISCUSSION: The manager did not dispute any of the allegations. Instead, she emphasized the company's good record. "We're a registered repair shop," she said. "We have a five-star rating on the station report card. We have a fantastic emissions repair technician. We make money on this program. I don't want to lose my status in the inspection program or as a registered emissions repair shop."

"This was fraud," the hearing officer responded. "This could get you a 180-day suspension."

"Yes. It was blatant," the manager said. "The inspector no longer works for me. We let him go even before we received the (violation) notices."

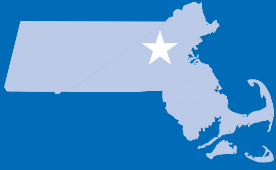
The hearing officer grilled the manager on the company's safeguards against inspection fraud. As he did, it became obvious that the fired inspector had subverted the station's internal documentation procedures to hide the "ghost test" from his superiors.

"I thought our system would keep inspectors from doing something like this," the manager said.

"Well, it happens," the hearing officer said. "Someone gets real creative and finds a way to beat the system. We're talking about things like this in every hearing, it seems."

The manager explained a new safeguard she had implemented. "We now require inspectors to print a second copy of the VIR (Vehicle Inspection Report) for every inspection," she said. "At the end of the day, I match these VIRs with my internal log of the vehicles inspected. If something doesn't match, I'm all over it."

DISPOSITION: RMV suspended the station for fraudulent practices and failure to perform a required emissions test. The late-arriving inspector was suspended until he successfully completes a retraining program. ■

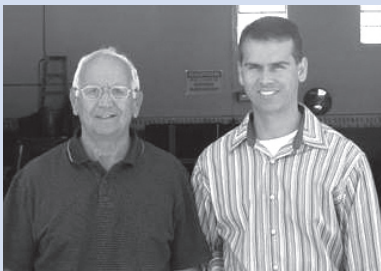


What's Good for Safety Has Been Good for Business

The Archers have proved you can be a stickler in the inspection business and still build a big business.

"We always do things by the book," said **Gary Archer**, owner-manager of G.W. Archer, Inc., in the country-town-turned-computer-suburb of Littleton. "We jack up the front end of every car. We measure the tread on every tire, check every tail light and directional, etcetera."

G.W. Archer's primary site is at the junction of Routes 119 and 110, just off I-495, where it operates a 24-hour fueling station and convenience store, and a daytime business devoted to inspections, maintenance and repairs.



George and Gary Archer

The company has two other sites in the neighboring town of Ayer. One is a combination tire store and inspection station; the other is a gas station-convenience store.

At its inspection facilities, G.W. Archer performs just over 7,000 inspections per year, a number that has grown significantly since Gary's father, **George**, started the business in 1966. The senior Archer is now retired.

The way Archer sees it, every vehicle due for an inspection must be thoroughly tested not only because the *Enhanced Emissions & Safety Test* requires it, but also because he has a personal responsibility to protect his customers.

"We're very committed to safety – front ends, ball joints, tie rods, brakes, tires, etc.," Archer said. "We don't want someone leaving here and hurting themselves or someone else in an accident caused by a mechanical failure. The safety and well being of every customer are our number one concern."

In general, Archer said, his customers are "very supportive of the enhanced inspection program. They want their cars to run safely. They also want their cars to run cleanly. And, because of the increasing cost of gasoline, they want their cars to run as efficiently as possible."

According to Archer, the implementation in early 2004 of full OBD II emissions testing helped raise customer satisfaction. "OBD really speeded things up," he said. "People noticed, and appreciated, that they were spending less time getting their cars inspected."

He noted that an August 2004 decision by the state to require more frequent equipment reliability audits has improved the company's ability to consistently deliver accurate emissions test results. "The intensified auditing has paid off. We're closer than ever to having the equipment work exactly as it's supposed to every time," he said. "We're more confident in the program now, and that helps our customers have confidence in the test."

When a vehicle fails for emissions at G.W. Archer, the problem is most frequently found in the catalytic converter, the oxygen sensor or the evaporative system. Although the company successfully repairs many of these failures, it never attempts such a repair without first informing the customer that it is not a state-registered emissions repair facility, and then providing the customer with information on registered facilities in the area.

Having worked in the business since he was a teen, side-by-side with his father, Archer tries hard to uphold the company's good reputation. "Before he started this business, my father was a crew chief in the Air Force, working mainly on F 84-Fs. The crew chief is the one responsible for ensuring that the aircraft is working properly and is safe to operate," he said. "He had a very professional approach: things had to be done right. That's how this business was built."

Littleton has changed a great deal over the past 40 years, as has automotive technology. But the principles that made George Archer, and later his son, successful have not.

Here's how Gary Archer describes their way of doing business: "We pride ourselves on our honesty and integrity. We tell people the truth. We don't hide anything. We never try to sell someone something they don't need."

He concluded, "Our customers have come to respect this approach." ■

G.W. Archer, Inc., 500 King St. (Route 119), Littleton 01460, 978-486-3336

Monday-Friday, 8 a.m. – 5 p.m.; Saturday, 8 a.m. – 1 p.m.

Also: 85 Central Ave., Ayer 01432, Monday-Friday, 8 a.m. – 5 p.m.; Saturday, 8 a.m. – 4 p.m.

New Gas Modules

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tions and consistently exact response times over prolonged use.

"This is a state-of-the-art piece of equipment that will make response times consistent and repeatable from station to station, meaning tailpipe tests will become even more dependable," said **Walter Moran**, contract compliance manager for Applus+ "The new gas module takes the repair-grade testing equipment in the stations and moves it up a notch closer to laboratory-grade equipment," he said.

The new modules will also set the stage for an important improvement in preventive maintenance of emissions testing equipment. "These modules will enable us to collect more accurate data on the condition of the equipment than we're now able to obtain," said Terry Hayes. "We'll use statistical process control software on that data to predict when an equipment failure will occur. Armed with that information, we'll be able to fix problems before there are actual equipment failures."

Over the long haul, the maintenance-enhancing dimension of the new modules should cause a noticeable reduction in station downtime, Hayes said.

Installation of the new modules will be timed to coincide with the release of new software that will, among other things, reduce response times used in calculating carbon monoxide (CO) and nitrogen oxide (NOx) emissions, and enhance test accuracy and consistency. *See article on new software releases, back page.*

On average, it will take only 10 minutes to install a new gas module; inconvenience to stations will be minimal.

"They will not even have to stop testing while these modules are being installed," Hayes said. ■

RMV Enforcement

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enforcement arsenal is covert auditing: using vehicles rigged to fail the test. Covert vehicle audits are done all the time; some are random, many are not.

"If, because of a certain complaint or a digital audit, we suspect something is wrong at a station, we may set up a covert vehicle in a certain way and submit it for an inspection there," Dupille said. "A covert audit can take a somewhat inconclusive case against a station and make it airtight in one inspection."

LaFrance said, "We're capable of performing covert audits anywhere in the state at any time. And we do." ■

Enhanced Emissions & Safety Test Program now offers:

MASSACHUSETTS STATION LOCATOR

For motorists in need of an Inspection Station or a Registered Repair Shop.

Go to program web site: www.vehicletest.state.ma.us.html

Click on **Inspection Stations** or **Find a Repair Shop**

Type in zip code and desired travel distance.

Mapquest® directions link provided.

BMW Testing Glitch Easy to Solve



Inspectors may sometimes have trouble starting the *Enhanced Emissions & Safety Test* on two kinds of BMWs, but there is a simple solution to the problem.

Because the computers on M3 and M5 model BMWs are so fast and sophisticated, there can be a glitch that immediately shuts down the test and fails the vehicle for "no communication."

In that situation, I&M program contractor Applus+ Technologies recommends that inspectors turn off the ignition, restart the car, and begin the test again.

"That's the whole fix," said **Paul Jannoni**, an L1 technician and supervisor of the Applus+ Diagnostic and Training Center (DTC) in Dedham. "You shut the car off, wait a second, start the car up again, and push the key on the workstation to re-initiate the test."

Jannoni and others at Applus+ began an investigation several months ago after receiving a number of reports of "no communication" failures for high-end BMWs. They found that, if an M3 or M5 BMW was running when an inspector started the emissions test, the analyzer could find it difficult to synchronize with the vehicle's computer system.

"The best way to explain this may be through an analogy," said Jannoni. "Think of the analyzer as a machine programmed to look for the first letter of the first word on the first page of a document. Think of the BMW as the document.

"Well, the analyzer is first seeing a word in the middle of the first sentence, instead of the first letter of the first word. Not seeing what it's supposed to see, the analyzer stops the test and says the car must be failed for 'no communication.'"

The analyzer and OBD system apparently synchronize as they should when the engine is turned off and restarted, and the test is restarted.

New software installed by BMW dealers on M3 and M5 models is now eliminating the likelihood of this problem at the start of the Massachusetts emissions test, Jannoni noted.

"If you own one of these cars, probably the best thing is to have it 'reflashed' at the dealership," he said, using a common term for reprogramming. "The dealership will do that anyway when the car is brought in for service. As a result, this will become less of an issue over time." ■

ENFORCEMENT ACTIONS

January– March 2006

Violations Issued to Inspectors : 159

Violations Issued to Stations: 160

Inspector Privileges Revoked: 2

Inspectors Required to Retrain: 4

Inspectors Suspended: 73

Stations Suspended: 101



New Software Will Bring Several Positive Changes

Inspection stations will notice several improvements in the *Enhanced Emissions & Safety Test* late this summer as new versions of workstation software are released to the network.

In addition to supporting new gas modules that will shorten daily calibration response times and all but eliminate false failures and the need for service calls, (see related article on page 1), the software changes will:

- Produce Vehicle Information Reports (VIRs) that are more helpful to motorists and registered repair shops because they'll emphasize the importance of having emissions repairs done at state-registered facilities.
- Alter the test protocol for heavy-duty diesel trucks and buses (10,001 pounds and more) by requiring inspectors to chock these vehicles' wheels and release their parking brakes before performing snap emissions tests. Currently, inspectors encounter problems testing some heavy-duties because their engine control modules block a quick move to full throttle if the parking brake is on.
- Streamline procedures used by equipment reliability auditors to check the

VMAS. This will slightly shorten the time required to conduct equipment audits.

Terry Hayes, deputy program manager for I&M contractor Applus+ Technologies, said his company expects to receive this new

software from its subcontractor, SPX, around July 1, and then test it extensively before releasing it to the stations.

August 15 is the current target date for system-wide implementation of the new software.

In a separate development, Applus+ and SPX are working on a software change that will eliminate a prompt that incorrectly directs inspectors to perform emissions tests on off-road vehicles, such as road sweepers, backhoes and front-end loaders.

Off-road vehicles need to undergo annual safety inspections but do not ever have to be tested for emissions.

Currently, inspectors are prompted to perform emissions tests every other year off-road vehicles are brought in for inspection. This requires inspectors to bring tests offline so they can be completed.

The software eliminating this problem will be ready for testing the second week of July, Hayes said. Applus+ hopes to release it to the network in conjunction with the other software improvements scheduled for August 15. ■

False Failures Ended For Matched Cutpoints

A newly released version of test software has solved a problem that occurred in those rare instances when a vehicle's emissions exactly matched the cutpoints for that vehicle.

A vehicle matching its cutpoints is supposed to pass the *Enhanced Emissions & Safety Test*, but, until the software was updated the end of May, station analyzers were failing such vehicles.

"It's extraordinary when a vehicle matches the cutpoints, so this wasn't a frequent problem," said Terry Hayes, deputy program manager for Applus+ Technologies. "But these cases were a hassle for both motorists and stations to deal with, so it was good to address the issue."

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See Article on Disciplinary Hearings, Pages 4-5

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