Illinois EPA to Roll Out Repair Effectiveness Index

The first Repair Facility Performance Report (RFPR) with Repair Effectiveness Index (REI) data is scheduled to be released in October 2000. It will use repair data collected from April 1, 2000 through September 30, 2000. While many formulas have been considered, the one decided upon will include data from all re-tests (not just the first re-test as previously considered) and will be calculated by dividing the total number of passes by the total number of repairs. This formula was decided upon because it will give credit to those shops that make effective repairs after other shops have tried and failed.

There will be two versions of the RFPR. The first, or regular version will retain the same format as the RFPR currently given to motorists that fail the test, but will include only the top 25 percent of those repair facilities that have made at least five repairs in the last six-month period. This report will be updated quarterly (every January, April, July, and October).

The second, or complete version will be a master report based on repair data for all repairs performed by all shops within the same six-month period. This will allow a customer who wants to see if an unlisted shop has ever made an IM240 repair to do so. Because of the potential size of this report, it will not be practical to reproduce it for the general public. However, each station will have a copy available that may be reviewed at the emissions testing station. This report will also be updated quarterly.

In addition to the printed versions of the REI, both the regular and complete versions will be available on the Agency’s web site (www.epa.state.il.us).

A disclaimer will be added to the RFPR to remind motorists that the information provided is meant to help them choose an effective repair facility and that not necessarily to recommend one repair facility over another. Motorists are still free to take their vehicles to the repair facility of their choice.

Due to these changes in the RFPR and the REI, the Agency will eliminate the voluntary recognition program. The number of repairs made and the REI alone should provide the best information for a customer to select a repair shop.

Repair Data Collection Procedure Revised

A new procedure for informing motorists about emissions test failures and the collection of repair data began at all emission test stations the third week in June 2000.

Highlights of the procedure include:

- Accepting repair data in lane position one if the repair data information on the back of the Vehicle Inspection Report (VIR) is completely filled out.
- Rejecting the vehicle in test lane if the VIR is incomplete or blank (Motorist must then take receipts to the office to receive help in filling out the VIR.)
- Test results information and literature given to the motorist in the test lane instead of requiring the motorist to go to the station office to receive the information.
- The new system emphasizes the need for the Repair Data Section on the back of the VIR to be completely and accurately filled out. The information on this form can be accepted by the lane operator only if all information on the form has been entered either by the repair technician or the motorist completing the repairs.

When the back of the VIR is incomplete or blank, the vehicle is rejected in the test lane and the motorist must meet with a Customer Service Representative (CSR) in the station office. If the motorist has brought receipts for emissions related repairs, the CSR will help.
Looking Ahead

The Illinois EPA Outreach Program, in an ongoing effort to provide current, pertinent information and support to the repair industry, is planning to offer two new seminars later this year and/or early next year. These technical seminars will be presented at no charge to members of the repair industry.

The first seminar will be presented by the National Center for Vehicle Emissions Control and Safety from Colorado State University. It is Phase III in a series and is entitled Function and In-Field Testing of Catalytic Converters.

The four-hour seminar will explore brief catalyst history, basic catalytic chemistry, and different methods for determining if a catalyst is functioning. In addition, positive and negative aspects of these functional tests will be examined.

The second seminar will be presented by Braun’s R&D from Kenosha, WI. It will deal with the diagnosis and repair of GM carbureted feedback systems with emphasis on the “Y” Olds 307 engine; however, much of the information presented will be relevant to other engines as well.

Studies have shown that the “Y” Olds 307 is one of the top 10 engines with the highest environmental impact; this four-hour seminar should be of great interest to technicians engaged in repairing IM240 failures.

You will be notified by mail as soon as definite dates and times for these seminars have been finalized. Preference for Phase III will be given to those technicians who have attended Colorado State’s Phase I and Phase II seminars and/or the informational seminars presented by the Illinois EPA Outreach Program.

Moving?

The Air Team receives a large number of returned Air Repair newsletters after each mailing. We’d like to keep our information up-to-date so we can keep sending Air Repair to you. Please tell us if you have changed your address, business name, or telephone number by calling 847-758-3434 or sending the updated information to: Illinois Environmental Protection Agency, Vehicle Emissions Test Program, PO Box 767, Elk Grove Village, IL 60009.

Repair Data Collection Procedure Revised

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complete the Repair Data section. Motorists who do not have receipts for all repair work that has been completed since the last test will be told to return with them. Motorists who do the repair work themselves must present repair orders, work orders or parts receipts.

To reinforce that complete repair data is required before the vehicle can be re-tested, the inspector at position three in the lane staples the VIR, the Repair Data Report (RDR) and a new advisory notice and gives them to the motorist with a fail brochure and the most current Repair Facility Performance Report (RFPR).

Quick Tips for the Month

By Jim Wellman, Repair Industry Liaison, Envirotest Illinois, Inc.

When it comes to IM240 repairs, there are few pattern failures. Pattern failures are failures that occur on the same type of vehicle over and over. Here are two that you should be aware of.

The first is on the Ford CFI vehicles. Here is a little trick that I picked up from several Ford dealer Techs. To get the vehicle into compliance on CO, it helps to set the fuel system pressure on the low side of spec. Most of these systems are 9 to 13 PSI. This is probably done to compensate for fuel injector wear. After doing this, test-drive the vehicle thoroughly. You can create cold weather start-up driveability problems if the pressure setting is too low.

The second tip has to do with EGR valves. Look for this problem on trucks and vans, particularly GM vehicles. The problem is a weak spring in the EGR valve, normally caused by high underhood temperatures in close quarters. This will cause an off idle stumble and can lead to emission test failures. Even though this may not seem like much of a problem when you are testing the vehicle in your shop, the time it requires for the system to regain fuel control will cause a test failure.
Myths About The IM240 Test

These are common myths and misconceptions about the IM240 test that the editors of this publication often hear in our day to day association with emissions testing and motorists.

Myth: Vehicles are driven over 100 MPH during an IM240 test.
Fact: The highest speed on the drive trace during a complete IM240 test is 56.7 MPH. If a lane inspector exceeds any portion of the drive cycle by more than two MPH for two seconds the test will automatically abort.

Myth: Vehicles are revved to 6000 RPM.
Fact: RPM readings are not monitored during an IM240 test. Vehicles are driven in a normal fashion, simulating typical driving conditions. Over revving a vehicle during the test would be counter productive to the vehicle passing the test. The only time a vehicle is revved to a certain RPM is during a pre-conditioning for a basic idle test. This pre-conditioning is done on the dyne and at an RPM range of 2200 to 2800 RPM.

Myth: Vehicles older than 1981 do not have to go on the dynamometer.
Fact: If an older vehicle is given a basic idle test and it fails, the monitor/lane computer will call for a pre-conditioning on the dynamometer. This is automatic and the lane inspector has no control over this part of the re-test.

Myth: Part-time four-wheel-drive vehicles should not be driven on the dyne.
Fact: If the vehicle can be put into a two-wheel drive mode where two wheels are completely disengaged it should be tested on the dynamometer, which will not damage the vehicle.

Myth: The vehicle passed all the tests in the shop and should pass the emissions test.
Fact: Keep in mind that gas readings taken in the shop are read in Parts Per Million and are only a sample of the exhaust gases when the car is at idle. The readings in the test lane are in Grams Per Mile and involve monitoring all of the exhaust coming from the vehicle during a loaded-mode test.

Myth: A good tune-up is all that's needed to get the vehicle to pass.
Fact: Plugs, wires, cap and rotor are not the cure-all for getting the vehicle to pass. Unless the vehicle has failed with a high HC reading caused by a bad misfire in one or more cylinders this would not be a good place to start and would probably be the least effective repair.

Myth: This test is hard on vehicles.
Fact: The IM240 test places less stress on the vehicle than if it were driven on the street. Keep in mind that this test is a shortened version of the Federal Test Procedure (FTP). All vehicles engineered and built in the last 30 years are built to pass the FTP test. Engineers will give up performance and even gas mileage so that the vehicle will pass the FTP test. All vehicles that come off of the assembly line are required by law to be able pass this test.

Myth: The test is hard on brakes.
Fact: A command that activates a feature called augmented braking is built into the system that controls the dynamometer. It comes into play when the vehicle is being brought to a stop after the first and last parts of the test. This command tells the dynamometer to assist in bringing the vehicle to a stop. On the dynamometer, only the tires and wheels need to be stopped from spinning. When the vehicle is on the road, not only are the tires and wheels stopped from spinning, the weight of the vehicle must also be stopped.

Myth: The test lane equipment is no good and caused the vehicle to fail the test.
Fact: The equipment used in the lanes is lab quality. This highly sophisticated system has a series of quality controls that ensure accurate inspections for each vehicle. The calibration of equipment at each Air Team station is checked hourly, daily, weekly, and monthly. Also, Illinois EPA field staff conducts audits of the system and Envirottest’s procedures to further verify testing accuracy. The emissions testing equipment is standardized in all of the IM240 emissions testing lanes. Each test lane self-checks every two hours. If this check reveals a problem with lane calibrations, the lane automatically shuts down, preventing inaccurate testing. In addition, computer software controls the dynamometer testing. The test driver cannot exert an influence on the test results. In addition to this, the gas readings must come back to zero between each test or the operator cannot perform the next test.
Address Correction Requested

If you change the name of your business, move to a new location, or change phone numbers, please send the correct information to us or let us know by phone so we can keep our mailing list up to date. If you mail in the correction, be sure to send the entire back page so we’ll have at hand the address we need to change along with the new address. Thanks for helping us ensure that you continue to receive future issues of Air Repair.

Name ________________________________

Company Name ________________________________

Address ________________________________

City, State, Zip ________________________________

Phone ________________________________

Call us at: (847) 758-3434 or mail to:

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Elk Grove Village, IL 60009-0767