

current contractor; and (3) requires that if the current contractor is utilized, the EPA and the contractor must agree to a new contract within thirty days after the effective date of the bill and if the two parties do not agree on renegotiation, the case will go to binding arbitration. Therefore, if the current testing company construes any of these changes as a potential breaking of the contract, it could sue the state, resulting in potential expenditures that may include an amount up to \$204 million (the total cost of the contract in Cleveland and Dayton minus the amount already received by the testing company), plus potential additional punitive damages that may ensue as a result of civil litigation.

Administration and Implementation of Other Air Pollution Control Programs

Depending on what type of air pollution control strategy is implemented in conjunction with the biennial basic program, there are potential GRF expenditures, especially with regard to administering a remote sensing program. There may also be potential GRF expenditures if the Director of EPA implements gas cap pressurization, a lower RVP gasoline or reformulated gasoline (RFG) as additional compliance options.

Local Fiscal Highlights

LOCAL GOVERNMENT	FY 1997	FY 1998	FUTURE YEARS
General Revenue Fund			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	- 0 -	Potential minimal increase	Potential minimal increase

- Potential minimal increase to counties and municipalities as a result of the prosecution of persons on the charge of falsification of a motor vehicle inspection report.

Detailed Fiscal Analysis

Fiscal Impact of Changing from E-Check to a Biennial Basic Program

State fiscal impacts may occur in three ways: (1) potential expenditure increase to the state if the contract with current testing company is terminated; (2) expenditure increase stemming from the moneys appropriated from the GRF to the EPA for administering the program; and (3) a potential expenditure increase to EPA, for administering compliance strategies in addition to a biennial basic program without a dedicated revenue source to offset the expenditures.

The Contract with Envirotest

On October 24, 1994, the State Controlling Board approved two contracts with Envirotest for implementation of the state's enhanced vehicle emissions testing program for Zone 1 (Geauga, Lake, Lorain, Medina, Portage, and Summit counties) and Zone 2 (Clark, Greene and Montgomery). Additionally, on April 25, 1995, Controlling Board approved a contract extension with Envirotest to implement an enhanced vehicle emissions testing program in Cuyahoga County (Envirotest was administering Cuyahoga County's basic vehicle emissions program). All three of these contracts encompassed a 10 year time period, in which Envirotest estimated the total value of the contract over the 10 year period, based upon a \$19.50 testing fee. The following table shows the original cost of the contract, the revenue collected over 16 months (based on a straight monthly average) and the adjusted total cost of the contract to date:

<i>County/Zone</i>	<i>Envirotest's Estimated Total Receipts over the Ten Year Period</i>	<i>Straight Average of 16 Months of Revenues Collected by the Contractor to Date</i>	<i>Adjusted Total</i>
Zone 1	\$ 92,145,464	\$12,286,086	\$ 79,859,378
Zone 2	\$ 60,065,975	\$ 8,008,797	\$ 52,057,178
Cuyahoga County	\$ 83,216,840	\$11,095,579	\$ 72,121,261
Total	\$ 235,428,279	\$31,390,462	\$204,037,817

Emissions Testing Contracts in Other States

To give an idea of what has occurred in other states when enhanced vehicle emissions test programs have been repealed the following details the experiences of Maine and Pennsylvania.

Maine

Maine began their enhanced I&M program in July 1994. The state signed a seven-year contract with Systems Control to implement their program. The program was in full operation until September 1994, when it became a voluntary program with phased-in vehicle testing. Essentially, motorists could wait until the following March to get their vehicle tested. As the volunteer program continued, Systems Control's revenues steadily decreased, causing them to

shut down testing centers. In May 1995, the program was repealed. According to the Section Chief for Mobile Sources in Maine's Department of Environmental Protection, the contract with Systems Control had been signed for approximately \$40 million, of which the company had already spent \$20 million. Systems Control sued the state. As of this writing, one judgment has been returned in favor of the state (Systems Control would get nothing). Apparently, a clause in the request for proposal stated that if the Legislature repealed the program, the state was not liable. However, this particular clause did not make its way into the contract. But in the ruling, the judge declared that Systems Control had adequate knowledge that this clause was in the RFP, therefore, the state was not financially liable for repealing the program

Pennsylvania

Pennsylvania signed a seven-year contract with Envirotest to perform the enhanced I&M program in 1995. The contract was subsequently repealed by the state legislature before the program started. Pennsylvania, up until that time, had been running a decentralized program. This decentralized program is still being run under a consent decree by the USEPA (i.e., USEPA is forcing Pennsylvania to implement the program). Pennsylvania is under a different set of circumstances than Ohio, with the Philadelphia area being designated as a severe ozone attainment area, mandating an enhanced program under CAAA. According to a spokesperson from the Office of Chief Counsel in the Pennsylvania Department of Transportation, when the Legislature repealed the program, Envirotest sued in excess of \$350 million. This included not only the cost of the estimated receipts from the program, but also items such as loss of goodwill and damage to reputation. The suit never went to court. It was settled for \$142 million plus a possible additional amount of up to \$15 million related to the construction of testing facilities.

Vehicle Testing Exemption

Under current law, cars that are two years old or newer are exempt from the testing requirements. However, when receiving the vehicle's initial title or if the legal title changes owners within the two-year time period, the vehicle must have an emissions test. Under this bill, the two-year exemption applies, regardless if the vehicle has gone through a change of ownership.

Fiscal Impact of Breaking the Contract

This bill changes E-Check to a biennial basic program and makes certain contract alterations, such as:

- exempting cars that are two years or newer from testing, regardless if title has been transferred within those two years
- stating that EPA *may* negotiate with the contractor but that they are *not required* to renegotiate with the current contractor; and
- requiring that if the current contractor is utilized, the EPA and the contractor must agree to a new contract within thirty days after the effective date of the bill and if the two parties do not agree on renegotiation, the case will go to binding arbitration

These changes may lead the testing company to construe that these provisions represent a breaking of the current contract. Language in the current contract states that "in the event that the EPA fails to cure a default..., the EPA agrees to reimburse the contractor for any actual and

direct losses incurred as determined by a court of competent jurisdiction.” Presumably, this cost could include an amount up to \$204 million, the total cost of the contract minus the amount already received by the testing company for implementing the first sixteen months of this program, plus additional punitive damages that may ensue as a result of civil litigation. It is presumed that if the state were required to pay a settlement, the money would come from GRF.

Change in Cost per Test

With regard to the basic test, the bill stipulates that no more than \$18.75 may be charged to motorists to have their car tested. The bill also states that a motorist would pay for an initial test, and, if the car did not pass, would not be charged for the first reinspection. However, if subsequent reinspections are required, the motorist is required to pay \$18.75 for each subsequent test. The cost of the enhanced test, which will still be operating in Cincinnati, continues to be \$19.50 and cannot exceed \$25 per test. The bill also states that the Director of EPA shall annually raise the cost of the fee by a percentage that does not exceed the percentage of increase in the Consumers Price Index. Under current law, approximately \$1.75 of the \$19.50 is transferred to the EPA and deposited into Fund 602, Motor Vehicle Inspection and Maintenance. Under the bill, *none* of the \$18.75 for the biennial basic test would be transferred to EPA. Instead the bill appropriates approximately \$1.91 million in FY 1998 and approximately \$2.96 million in FY 1999 from the GRF 715-402, Motor Vehicle Emissions Testing, to pay for the costs of administering vehicle testing programs.

Remote Sensing Programs

The bill requires the EPA to evaluate the feasibility, utility, and cost-effectiveness of implementing a remote sensing program, and may implement a remote sensing pilot program. What is remote sensing? In general, an infrared beam is projected across a road, at tailpipe level, into a detection device that is normally monitored with a van or other roadside vehicle. The detector converts the infrared energy into an electric signal. The greater the energy detected the higher the electric signal and the lower the emission reading. Higher polluting cars absorb more of the infrared energy, creating a lower electric signal. A high-speed camera snaps a photograph of the vehicle’s license plate, and if the vehicle is detected as a “gross polluter,” a notice is mailed to the owner to take their car to a testing facility for further emissions tests. The question for this analysis then is how much would it cost to implement a remote sensing pilot program? Arizona, Colorado and New Jersey are currently implementing a remote sensing program in various ways with the associated costs:

<i>Location of Program</i>	<i>Type of Program</i>	<i>Cost per Year</i>
Phoenix, Arizona	Fully implemented	\$915,000 ^a
Greeley, Colorado	One-year pilot program	\$500,000 ^b
New Jersey	10-week pilot program	\$200,000 to \$468,000 ^c

^a Expenditures originate from general funds of Arizona (i.e. state money)

^b An estimate if all cars in the vehicle population are tested; funding originally from the contractor, but in future years will come from the state

^c Annualized estimate based upon the bid received for the ten-week pilot program

As shown above, the annual costs to implement a remote-sensing program in the states contacted ranged from \$200,000 to \$915,000 per year. For more specific details these areas' remote sensing programs, please see the Appendix.

Implementing Additional Air Pollution Control Programs

The bill specifies that additional air pollution control programs be implemented in the areas of the state in which a biennial basic program is operating. The bill allows, but does not require, programs such as alternative fuels or gas cap pressurization to be utilized as additional pollution control programs. Because no specific programs are required under the bill, it is difficult to estimate any potential cost to the state. Reformulated gasoline (RFG) and the utilization of lower RVP gasoline are two fairly common options that have been used in other states. Therefore, this analysis assumes that one or both could be implemented. If so, there is potential cost to the state for administration of these programs, specifically some state oversight activities. However, it appears that most of the cost associated with a lower RVP and RFG program is absorbed by entities other than the state (i.e. the petroleum industry, gasoline consumers, etc.). For more information on both a lower RVP gasoline program and RFG, please see the Appendix.

Local Air Councils

The bill creates a local air council in both the Cleveland and Dayton areas. Each advisory council shall consist of four members from each of the counties represented in the advisory council. To assist the advisory councils in performing their duties, OEPA, the Department of Development and the Department of Transportation shall provide technical assistance, including information on cost, feasibility and impacts of alternative compliance strategies. Additionally, applicable local air pollution control authorities and metropolitan planning organizations shall provide technical assistance to the advisory councils.

The local air councils shall submit to the Director of EPA, recommendations for additional compliance strategies in conjunction with a biennial basic program, for maintaining compliance with the National Ambient Air Quality Standards for ozone and carbon monoxide, in lieu of the operation of E-Check. Before the recommendations are submitted, each advisory council shall hold at least one public meeting in the appropriate attainment area to receive public comments in the proposed compliance strategies. The advisory councils shall publish notice concerning the meeting in the newspaper of general circulation in the county, not less than two weeks prior to the meeting. The local governments represented by the local air council shall pay any costs incurred for posting notice of the public hearing. However, if the local air councils request EPA to reimburse these costs, EPA is required to do so.

□ *LBO staff: Tony Mastracci, Budget/Policy Analyst*

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Appendix

Remote Sensing

Colorado – City of Greeley

In Greeley, Colorado, the Colorado Department of Public Health and Environment (DPHE) administers a basic vehicle emission testing program in conjunction with a remote sensing program called Clean Screen. For 3 to 4 days a week, the remote sensing equipment is set up to detect which cars are clean (i.e. are not emitting pollutants above a certain standard). If a car is detected as clean, it does not have to be tested at an inspection center. If a car is not clean, the vehicle owner would be required to have the car's emissions tested anyway. By using remote sensing to determine which car is clean, as opposed to catching dirty cars, a more positive emphasis is placed on the program. However, because Greeley's remote sensing program focuses on clean cars instead of dirty cars, the state does not receive any emission reduction credits from the USEPA.

In setting up a remote sensing area, the site chosen is critical, as the car must be slightly accelerating past the infrared beam in order to receive representative emissions readings. Low speed with no acceleration past a remote sensing area often produce abnormally clean readings while deceleration past a site produces high hydrocarbon (HC) readings. Weather is a major factor, in that rain or water from the road greatly interferes with the proper functioning of remote sensing devices.

The contractor spent \$500,000 for the first year operation of the remote-sensing program, a figure that was negotiated in the testing companies' contract. According to the spokesperson from the DPHE, the state will probably be able to fund the program for the next year, but will need to create funding mechanism for future years. According to an interim report from the DPHE, the average test cost about \$2 per car and that approximately 50 percent of the cars in Greeley have been tested (approximately 27,000 cars). This does not mean, however, that there have been 27,000 tests. In fact the spokesperson states that there have been approximately 140,000 tests, as many cars have been measured multiple times (because the testing equipment is set up in the same place). The report estimates that an annualized figure of \$250,000 has been spent on the equipment purchased and the testing of the cars. Because the spokesperson stated that only half of Greeley's vehicles have been tested, doubling the \$250,000 figure to \$500,000 may give an indication of the true cost of the program per year to test the entire vehicle population in Greeley.

New Jersey

As a part of the ozone transport region, the entire state of New Jersey is classified as severe non-attainment for ozone, and is currently running an annual basic I/M program, along with other transportation control programs. In addition, New Jersey sent out a bid for proposal on a ten-week data collection study to determine the feasibility of remote sensing in their state. The winning bid of \$38,300 was spent to set up a remote sensing area and collect data (a spokesperson from the New Jersey Bureau of Transportation Control stated that the winning bid was probably low and a closer approximation of the true cost was sent by another bidder at

approximately \$90,000). To give an annualized approximation of New Jersey's remote sensing program based upon these two bids, the program could cost from \$200,000 to \$468,000 per year.

The remote sensing area was set up on a long entranceway into a Trenton-area inspection and maintenance station. During the 10-week study (from September 1996 through November 1996), approximately 10,000 readings were collected, which likely included multiple measurements on certain vehicles. As is the case in Colorado, weather played a role in the collection of data. Measurements could not be taken when it was raining, and wet roads made measurement close to impossible. The spokesperson stated that a report on their findings would be completed in June 1997.

Arizona – City of Phoenix

Since January 1, 1995, Phoenix, Arizona has been running a remote sensing program in six areas around the city. The program has been funded through a variety of means, but most recently, general funds have been utilized. Approximately \$915,000 has been spent annually on the remote sensing program. The six remote sensing areas in Phoenix collect a total of approximately 200,000 valid vehicle emission measurements. Multiple "dirty" observations on one car must be measured before the vehicle owner is notified as needing to bring the car to an inspection center for further testing. Weather (rain, specifically) is not as much of a problem in Phoenix. However, because the state runs both an idle (basic) and dynamometer (enhanced) test, it can be difficult to translate the remote sensing measurements into telling vehicle owners which type of test their vehicle must take.

Lower RVP Gasoline

The term RVP is a measure of a fuel's volatility. Lower RVP, then, has lower volatility than conventional gasoline. Therefore, when lower RVP gasoline (as compared to conventional gasoline) is used, there is a reduced rate of gasoline evaporation into the atmosphere. Lowering RVP in the summer months (during peak ozone production) offsets the accelerated effect that hot temperatures have on the evaporation of gasoline. Using lower RVP gasoline in the summer slows down the amount of volatile organic compounds (VOC) released into the atmosphere. This decreases the amount of VOCs that could potentially combine with nitrous oxides to form ground-level ozone.

Does the state have oversight over a lower RVP gasoline program? According to a spokesperson from the Georgia Department of Environmental Protection, the lower RVP gasoline program being implemented in Atlanta has certain state oversight activities involved in the testing of the gasoline. Therefore, while not specifically stated in the bill, the state may bear some expenditure in the implementation of a lower RVP gasoline program. However, it is likely that the majority of costs associated in implementing a lower RVP gasoline program in Cleveland and Dayton would be borne out by the companies refining and distributing the gasoline and by the consumers who may pay higher prices at the pump.

Reformulated Gasoline (RFG)

Reformulated gasoline (RFG) is "...a new blend of gasoline in which the composition has been altered to reduce polluting automobile emission."¹ CAAA 1990 requires that all RFG have a minimum oxygen content of 2 percent by weight, to ensure complete combustion of the fuel, thereby reducing CO emissions.² The oxygen content is achieved through the addition of methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE) or ethanol. RFG also contains lower concentrations of certain VOCs and is formulated to reduce hydrocarbons and air toxics.³ According to USEPA, in 1995 RFG reduced VOC emissions and toxic air pollutants by 15 percent over 1990 conventional gasoline standards, the equivalent of taking 8 million cars off the road.⁴ One of RFGs main advantages is that it can be used in existing vehicles without engine or fuel modifications. Additionally, it "...provides the best emissions benefits currently available for gasoline powered vehicles."⁵

In committee, some individuals testified about health problems that have been reported by persons using RFG, specifically that RFG containing MTBE may cause headaches, nausea and dizziness. On the other hand, numerous studies, by USEPA, various state health agencies and Yale and Rutgers universities, both before and after health concerns were raised, indicate that there is "...no verifiable evidence to support adverse health effects of MTBE on human health."⁶

Another potential drawback is the slight reduction in fuel economy that may occur, due to the reduced energy content in RFG. Some studies have concluded, "...vehicle performance may decrease by no more than 1 to 3 percent with the use of reformulated gasoline."⁷ Other studies suggest that over time, the cleaner burning nature of the fuel may increase vehicle performance due to the reduction of engine deposits.

Testimony has been mixed on the issue of how switching to RFG would affect the price of gasoline at the pump. According to a spokesperson from the Ohio Petroleum Council, in a 15-state area from late 1994 through early 1996, on average RFG exceeded conventional gasoline by 4.3 cents. This 4.3 cents coupled with the 1 to 3 percent reduction in fuel economy, increases the cost to the consumer to approximately 7 cents per gallon.⁸ According to OEPA testimony, in certain parts of the U.S. price increases up to 10 cents per gallon occurred in markets where RFG was used.⁹ Other studies suggest that initially the price of RFG is higher than conventional gasoline "...but actual experience in California, Rhode Island and 17 other states show that there is no differential between RFG and conventional gasoline after the market place stabilizes."¹⁰

¹ Hugh K. Wilson, Jackie Cummins and Jeff Dale. *Alternative Fuels: A Case Study Report*, National Conference of State Legislatures (March 1996), p. 16.

² *Ibid.*

³ USEPA, *Oxyfuels Information Needs*, EPA/600/R-96/069, (May 1996), p. 1.

⁴ Hugh K. Wilson, Jackie Cummins and Jeff Dale. *Alternative Fuels: A Case Study Report*, National Conference of State Legislatures (March 1996), p. 4.

⁵ *Ibid.* p. 17.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Robert Leidich, *Testimony before the House Energy and Environment Committee*, (April 11, 1996), p. 2.

⁹ Donald R. Schregardus, *Testimony before the House Finance Committee*, OEPA, (September 11, 1996), p. 2.

¹⁰ William Johnson, *Testimony before the House Energy and Environment Committee*, Ohio Motorists Association, (May 9, 1996), p. 3-4.

In Jefferson County, Kentucky (Louisville), RFG is used in conjunction with enhanced I&M testing. With respect to the price at the pump, the price per gallon of RFG in Jefferson County is very similar to the counties surrounding Jefferson. According to a spokesperson from the Jefferson County Air Quality Board the market tends to even out the prices between conventional gas and RFG. Whenever the price differential rises above 2 cents, people will start to drive out of Jefferson County to put conventional gas in their car. Therefore, the market tends to keep RFG below this 2 cent differential.¹¹

¹¹ Dick Everhart, Jefferson County Air Quality Control Board, telephone interview, (October 15, 1996)