



Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #797

Vehicle Emissions Inspection Program (DOT -- Motor Vehicles)

Bill Agency

[LFB 2007-09 Budget Summary: Page 562, #7]

CURRENT LAW

The Department of Transportation (DOT) administers the vehicle emissions inspection program in seven counties in the southeastern portion of the state that are classified under federal standards as moderate nonattainment areas with respect to ozone pollution. The seven affected counties are Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha. The state is required to administer such a program under the federal Clean Air Act Amendments of 1990.

Any vehicle that is kept in one of the seven nonattainment counties is subject to testing unless it: (a) is of model year 1967 or older; (b) has a gross vehicle weight exceeding 10,000 pounds; (c) is powered by diesel fuel; (d) is not required to be registered; (e) is a moped or motorcycle; or (f) is registered as a farm truck. New vehicles are first subject to testing prior to renewal of registration in the fourth year after the model year. For example, a 2007 model year would be tested prior to registration renewal in 2010. Vehicles are then tested every two years thereafter, or upon transfer to a new owner.

Vehicles subject to testing must meet minimum standards for emissions of hydrocarbons (volatile organic compounds) and nitrogen oxides, which are precursors to ozone pollution and smog, and for emissions of carbon monoxide, which poses a health hazard in high concentrations. The standards are established by administrative rule by the Department of Natural Resources (DNR) and vary depending upon the vehicle's age and weight. The owner of a vehicle that fails to meet the standards must have the vehicle repaired and retested prior to registration renewal. Certain vehicles may be registered despite having failed one or more subsequent tests if the amount spent on repairs exceeds a certain cost limit. For most vehicles in

Sheboygan County, the repair limit is \$200, while the limit for most vehicles in the other counties is \$450. Sheboygan County is subject to different standards since it used to be classified in a different air quality category, although this is no longer the case.

Vehicles that are of model year 1995 and older are tested using a different procedure than vehicles of model year 1996 and newer. Emissions of the older vehicles are tested primarily using detection equipment attached to the vehicle's tailpipe while the vehicle is "driven" on stationary rollers. Emissions of newer vehicles are not tested directly, but instead, the vehicle's "on-board diagnostic" system (OBD) is checked to determine whether the vehicle's emissions equipment and engine are functioning properly. If the test determines that the vehicle's systems are functioning, it is presumed that the vehicle meets the emissions standards. There is currently no repair cost limit waiver for vehicles that fail the OBD test, although the average cost of the necessary repairs is generally lower for these vehicles.

The testing is conducted by a private firm under contract with DOT. The cost of the testing contract is paid from a transportation fund appropriation and there is no cost to the vehicle owner (other than any required repairs). In 2006-07, the contract appropriation was funded at \$13,274,400 SEG. Since 2004-05, an annual transfer of \$6,321,700 has been made from the petroleum inspection fund to the transportation fund to cover a portion of the cost of the program.

GOVERNOR

Provide \$50,000 SEG in 2007-08 to pay estimated increased costs under DOT's contract with a private firm to manage the vehicle emissions and inspection program in southeastern Wisconsin. Transfer \$1,119,200 SEG from the supplies and services line to the unallotted reserve line of the vehicle emissions inspection program appropriation in 2008-09, which is the amount that DOT estimates would be needed to implement the program modifications described below.

Exempt from emissions testing vehicles of model year 1995 or earlier, instead of, under current law, vehicles of model year 1967 or earlier. Require emission testing of vehicles up to 14,000 pounds, instead of, under current law, vehicles up to 10,000 pounds, beginning with vehicles of model year 2007. Require vehicles powered by diesel fuel (and weighing 14,000 pounds or less) to be subject to testing, beginning with vehicles of model year 2007.

Permit DOT to establish alternate methods for emissions testing and equipment inspection in addition to the current method of testing by private contractor, provided that such alternate methods include the tests required under federal law and that the results of the tests are contemporaneously furnished in writing to the person having the vehicle inspected. Specify that these methods may include the installation and operation by the Department of self-service inspection stations and the utilization of any technology related to emissions or data transmission with which motor vehicles may be equipped. Permit DOT to establish methods for emissions

testing and equipment inspection specifically applicable to self-service stations, and, if such methods are established, require DOT to include these methods in the administrative rules for the program.

Specify that the contract with the firm to conduct testing at stations that are not self-service may authorize or require the contractor to install and operate self-service inspection stations and may allow the use of different methods for emissions testing and equipment inspection than those used at inspection stations that are not self-service. Specify that the testing methods established for self-service stations operated by the contractor must be consistent with those established for self-service stations installed and operated by the Department.

Modify the current law provision that entitles a person whose vehicle failed one test to have the vehicle retested within 30 days, to specify that in cases where the initial test was conducted using an alternate testing method, the subsequent test must be conducted at the same location where the original test was conducted.

Specify that these changes would take effect on July 1, 2008.

DISCUSSION POINTS

1. The Department of Transportation's current contract with Envirotest of Wisconsin, the firm that administers vehicle emissions tests, expires on June 30, 2008. The bill would provide \$50,000 SEG in 2007-08 to pay the estimated cost of the contract in the final year. In 2008-09, however, no additional funding would be provided in anticipation that program changes would reduce costs. The bill, beginning in 2008-09, would modify the vehicles subject to testing and would allow DOT to change the methods used for conducting tests.

2. Under the bill, vehicles of model year 1995 and older would be exempted from testing. However, beginning with vehicles of model year 2007, vehicles above 10,000 pounds, but less than 14,000 pounds, and vehicles that are powered by diesel fuel (also up to 14,000 pounds) would be subject to testing for the first time.

3. DOT estimates that the elimination of vehicles of model year 1995 and earlier would reduce the testing volume by about 25% in 2008-09. However, the primary purpose of exempting vehicles of model year 1995 and earlier would not be to reduce the volume of vehicles tested, but, instead, would be to allow tailpipe testing to be eliminated in favor of on-board diagnostic tests. All light-duty, gasoline-powered vehicles manufactured since 1996 are equipped with on-board diagnostic systems. Since on-board diagnostic tests can typically be completed in less than one minute, as opposed to up to four minutes with tailpipe tests, the switch to on-board diagnostic testing would reduce the overall testing time.

4. Adding diesel-powered vehicles and vehicles between 10,000 pounds and 14,000 pounds would not increase the volume of vehicles tested in the short run, but would eventually increase the volume, relative to current law. Since, under the bill, the testing of diesel-powered and

the heavier vehicles would begin with model year 2007 vehicles, and vehicles are not tested until just prior to the fourth registration year, no vehicles in these classes would be added to the testing volume until 2010. DOT forecasts that the overall volume of tested vehicles would remain below the amount that would be tested under current law until about 2015, at which time the number of vehicles in the new classes would outnumber the vehicles of model year 1995 and earlier that are still on the road.

5. Subsequent to the introduction of the bill, the Department of Administration (DOA) issued an errata, indicating that the statutory language in the bill did not match the Governor's intent to exempt all vehicles that are not equipped for on-board diagnostic testing. Vehicles of model year 2006 and earlier that are above 8,500 pounds were not required to be manufactured with on-board diagnostic capability, but would still have to be tested under the bill. DOA's errata recommendation would exempt these vehicles from testing. Beginning with model year 2007, all vehicles under 14,000 pounds, both diesel- and gasoline-powered, are required to have on-board diagnostic equipment and would have to be tested.

6. The overall purpose of the changes in the bill would be to increase the cost effectiveness of the state's emissions inspection program. The end of the state's emissions program contract on June 30, 2008, provides an opportunity to eliminate the most expensive type of test since, in future years, it would be used on a declining number of vehicles. In evaluating this change, DOT and DNR jointly examined several scenarios for their impact on emissions.

7. Vehicles of model year 1995 and older are more likely to fail an initial emissions test than newer vehicles, despite the fact that emissions standards for older vehicles are not as stringent as for newer vehicles. Exempting these vehicles from testing, therefore, would allow more vehicles with failing emissions systems to continue to operate than would otherwise be the case. However, the analysis done by DNR and DOT concluded that repairs intended to bring these older vehicles into compliance are more expensive than the repairs needed for newer vehicles, but the success rate for repairs on an older vehicle (passing a subsequent test) is significantly lower than the success rate for repairs to newer vehicles. Consequently, the agencies concluded that maintaining the relatively expensive tailpipe tests going into a new, multi-year testing contract would not be as cost-effective as testing only vehicles equipped with on-board diagnostic systems.

8. Initially, the decision to exempt vehicles of model year 1995 or older would lead to higher emissions of the three tested pollutants, relative to the current law program. In 2009, it is estimated that emissions reductions associated with the program would be 18% to 21% lower (higher emissions) than if the 1995 and older vehicles continued to be tested. However, as the number of these vehicles on the road diminishes, the difference in the amount of emissions reductions becomes less significant. In 2018, the estimated difference in emissions reductions between current law and the proposal under the bill is about 1% to 2%.

9. While exempting older vehicles would reduce the emissions reduction benefits of the program, adding diesel-powered vehicles and vehicles up to 14,000 pounds would increase these benefits. Since these changes would begin with model year 2007 vehicles, the number of affected

vehicles would be relatively small in the short run, and would not affect the testing volume until 2010. Consequently, the emissions reduction benefits associated with adding these two classes of vehicles would also be relatively small. Even by 2018, the difference in emissions reductions associated with adding the diesel-powered vehicles and vehicles up to 14,000 pounds would be less than 1%, relative to a scenario in which the only change made to current law is exempting vehicles of model year 1995 and older. Since the emissions reduction benefits gained by adding these vehicles is relatively small, a change to the bill to continue to exempt diesel-powered vehicles and vehicles over 10,000 pounds may not significantly hinder the state's ability to achieve the regional air quality goals over the next ten years.

10. The decision to add diesel-powered vehicles could be viewed, in part, as establishing an equitable set of standards for testing vehicles. Light-duty, diesel-powered vehicles have been excluded from the emissions testing requirements because the tailpipe tests are not designed to work with those vehicles. This exclusion is not relevant, however, for a system that uses on-board diagnostic tests, since newer, diesel-powered vehicles are equipped with such systems. Consequently, the decision to exclude diesel-powered vehicles would be based primarily on a continuation of existing rules, not factors related to any unique challenges posed by testing those vehicles.

11. The decision to add vehicles over 10,000 pounds could also be viewed as requiring owners of those vehicles to abide by the same requirements to maintain vehicle emissions systems in good working order as are imposed on owners of passenger vehicles. Heavier vehicles were exempted, in part, because many are used in the course of business and the time needed to have the vehicles tested could be a burden to the business. However, the Department indicates that some alternative forms of testing, which the bill would allow, may make it possible to simplify the testing process, particularly for businesses that own a fleet of vehicles. For instance, one possibility is that fleet owners could upload test results into a computer and then send them to DOT electronically, thereby eliminating the need to go to a test station. Other vehicles could have the capability of automatically transmitting vehicle readings to the Department, similar to the manner in which the On-Star system used by certain vehicles manufactured by General Motors can be used to transmit vehicle information. Consequently, as with the current exemption for diesel vehicles, the new testing procedures proposed under the bill would eliminate one of the reasons for providing an exemption for heavier vehicles.

12. Although the emissions reduction benefits of requiring diesel-powered vehicles and vehicles up to 14,000 pounds to be tested would be relatively small initially, the benefits would increase as the number of these vehicles increases and as they age. The analysis by DNR and DOT found that the emissions benefits to subjecting these vehicles to testing would continue to increase after 2018. DNR indicates that it was believed that the federal Environmental Protection Agency would be more likely to approve the changes to eliminate tailpipe testing of the older vehicles if the state could achieve long-term, offsetting emissions benefits from testing diesel-powered vehicles and vehicles up to 14,000 pounds.

13. The Department indicates that eventually the alternative methods of testing

discussed above could be made available to all vehicles subject to testing. For instance, auto repair shops could have the capability of transmitting vehicle diagnostic information to the Department for the vehicles that they service. Also, testing could be conducted through the use of self-service kiosks that allow the vehicle owner to plug in a diagnostic device into the vehicle console. These methods could have the potential of substantially reducing the cost of the testing contract.

14. Although there are several alternative testing methods that could reduce the cost of the emissions testing program, DOT indicates that reaching the point where these methods may be fully utilized could take some time. For instance, if a decision is made to make self-service testing kiosks available, the Department would have to go through several steps to implement such a system, including identifying a vendor for the equipment, purchasing or contracting for the machines, developing a plan for locating them, and securing leases for those locations. Furthermore, the Department would likely begin using kiosks on a limited, pilot project basis, to determine whether their use would be sufficient to justify the associated expense. Consequently, the full savings that could be gained through the use of alternative testing measures would not be achieved in the 2007-09 biennium. The Department intends to seek a one-year extension of the current testing contract, in part to allow for more time to develop alternatives. At the end of the one-year extension, the entire project could be re-bid, when the alternatives could be more fully utilized.

15. Although it may not be possible to take full advantage of the alternative testing methods during the 2007-09 biennium, it is possible that savings will be achievable in 2008-09 due to a reduced testing volume and the elimination of the most expensive type of tests. Since the program would be administered under new provisions of a contract extension, the actual costs that would be incurred are unknown, but the Department indicates that a conservative assumption would be that savings could equal 10% of the current costs, or \$1,332,400, which would leave the cost of the contract at \$11,992,000.

16. Although there would likely be contract savings under the changes proposed under the bill, DOT estimates that it would cost \$1,119,200 to implement these changes. Of this amount, \$950,000 would be one-time costs for the data processing needed to develop interfaces with the vehicle registration system to allow for the electronic transmission of test results from testing kiosks. The remaining \$169,200 would be for the salary and fringe benefit costs and equipment costs associated with two project positions that would provide implementation guidance and oversight.

17. The bill would not change the overall level of funding for the emissions program contract in 2008-09, but would place \$1,119,200, the estimated amount needed for implementation, in unallotted reserve in the Department's appropriation for the emissions program contract. DOA indicates that this amount could be released to pay for implementation costs, once these costs are known with more precision. The amount remaining in the appropriation after implementation costs are paid would be available for the cost of the program under the provisions of the contract extension. If the full amount placed in unallotted reserve is used for implementation costs, the amount remaining in the appropriation for the cost of the contract would be \$12,155,200. This

amount, however, would exceed the amount needed for the contract under DOT's 10% savings assumption by \$163,200. Therefore, the Committee could reduce the funding for the Department's emissions program contract appropriation by this amount.

18. DOT notes that the 10% savings estimate is conservative and that any additional savings associated with the program changes would lapse to the transportation fund at the end of 2008-09. Since there may be many transportation programs that could otherwise use any additional savings, the Committee could decide to modify the bill to allow any potential savings to be appropriated for other programs. This could be done by placing the funding for the program in 2008-09 in the Committee's appropriation and requiring the Department to request funding for the contract and implementation costs when more information is available. Any amounts placed in the Committee's appropriation not needed for the program could be used for other transportation programs when the Committee acts on the Department's request.

19. Whether or not the funding for the program is placed in the Committee's appropriation or is retained in DOT's contract appropriation, a case could be made that the 10% savings estimate is overly conservative. The Department indicates that the reason additional savings were not assumed is that, in the absence of any program changes, the renewal of the contract would result in increased costs, due to inflation. Since the payments under the contract have been held at a constant rate over the last three years of the contract, the Department estimates that testing costs would increase by about 10%, from \$13.3 million currently to \$14.7 million. However, since the testing volume would decrease by 25% under the provisions of the bill, it could be assumed that the costs under contract extension would be 25% lower than this estimated cost. Relative to the bill (presuming that the program implementation costs are still provided), this would result in a reduction of \$1,130,200 SEG in 2008-09.

20. The risk associated with assuming greater savings than are assumed under the bill is that not enough funding would be available for the contract if the savings are less than expected. In this event, the Department may be forced to request supplemental funding under s. 13.10 of the statutes. If, however, not enough funding is available in the transportation fund balance for providing such a supplement, approving the request may involve reducing the appropriations for other programs.

ALTERNATIVES TO BILL

A. Vehicle Emissions Program Funding Level

1. Adopt the Governor's recommendation to provide \$50,000 SEG in 2007-08 for increased cost of the emissions inspection program contract and place \$1,119,200 SEG in unallotted reserve in 2008-09 for implementation costs of program changes.

ALT A1	Change to Bill Funding	Change to Base Funding
SEG	\$0	\$50,000

2. Modify the Governor's recommendation by reducing the contract appropriation by \$163,200 SEG in 2008-09, which would provide the same level of funding that the Department estimates would be needed for the contract and the implementation costs associated with program changes in that year.

ALT A2	Change to Bill Funding	Change to Base Funding
SEG	- \$163,200	\$113,200

3. Modify the Governor's recommendation by reducing the contract appropriation by \$1,130,200 SEG in 2008-09, which would reflect an assumption of 25% savings for a contract extension in that year, plus provide \$1,119,200 for implementation costs.

ALT A3	Change to Bill Funding	Change to Base Funding
SEG	- \$1,130,200	- \$1,080,200

4. Delete provision.

ALT A4	Change to Bill Funding	Change to Base Funding
SEG	- \$50,000	\$0

B. Provision of the Funding

1. Transfer the funding provided for the vehicle emissions inspection program in 2008-09 (under the part "A" alternatives above) to the Joint Committee on Finance's supplemental appropriation. Specify that the Department of Transportation may make a request no later than the fourth quarterly meeting of the Committee under s. 13.10 of the statutes in 2007-08 to transfer some or all of this funding for the cost of implementing program changes and the cost of the contract. Specify that the Committee may transfer any amount not needed for implementation and contract costs to any other SEG appropriation in DOT.

2. Maintain current law.

C. Vehicle Emissions Inspection Program Changes

1. Approve the Governor's recommendation to: (a) exempt from emissions testing vehicles of model year 1995 or earlier and vehicles of model year 2006 and earlier that are over 8,500 pounds; and (b) require emissions testing of vehicles up to 14,000 pounds and vehicles powered with diesel fuel, beginning with vehicles of model year 2007. [This alternative reflects the bill with the changes in DOA's technical errata for the program.] Approve the Governor's other recommendations allowing DOT to adopt alternative methods of testing.

2. Modify the Governor's alternative by adopting one or both of the following changes:

a. Eliminating the requirement that diesel-powered vehicles be subject to emissions testing.

b. Eliminating the requirement that vehicles over 10,000 pounds, up to 14,000 pounds, be subject to emissions testing.

3. Delete provision.

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