AN EVALUATION

Vehicle Emissions Testing Program

Department of Natural Resources

Department of Transportation

02-6

March 2002

2001-2002 Joint Legislative Audit Committee Members

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March 8, 2002

Senator Gary R. George and
Representative Joseph K. Leibham, Co-chairpersons
Joint Legislative Audit Committee
State Capitol
Madison, Wisconsin 53702

Dear Senator George and Representative Leibham:

As requested by the Joint Legislative Audit Committee, we have completed an evaluation of the State's vehicle emissions testing program in southeastern Wisconsin. The Department of Natural Resources (DNR) determines the parameters of the program in accordance with federal Clean Air Act requirements, while the Department of Transportation (DOT) is responsible for administering the State's contract with a private firm that operates the testing stations. In calendar year 2001, approximately 784,000 vehicle emissions tests were performed at a total cost of $11.2 million. Motorists pay no fee for testing, which is supported by federal funds, the State's Transportation Fund, and general purpose revenue.

Wisconsin implemented its vehicle emissions testing program to comply with the federal Clean Air Act and to reduce ozone levels. Currently, the program requires most vehicles registered in Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties to be tested every two years. Although testing is a federal mandate, states have some discretion in designing their programs. Overall, Wisconsin's program is more stringent than the applicable federal model. As a result, DNR officials believe federal air quality standards will be attained in 2002, five years earlier than the federal deadline. The Legislature could consider changing the current program as long as the changes would have no significant effect on emissions levels. We have suggested several options for the Legislature to consider.

We found several areas in which DOT's management of the contract with the private testing firm was inadequate. For example, DOT has not attempted to renegotiate contract payments despite testing volumes 14.7 to 18.2 percent below those anticipated when the contract began in 1995. In addition, the contractor has failed to meet waiting time standards at a number of testing stations over the course of the contract, but DOT has not pursued liquidated damages for these violations.

We appreciate the courtesy and cooperation extended to us by DNR and DOT. The agencies' responses are appendices 5 and 6.

Respectfully submitted,

Janice Mueller
State Auditor

JM/KW/ss

Summary

To comply with the federal Clean Air Act and reduce ozone and other types of air pollution, Wisconsin has implemented a vehicle emissions testing program in seven southeastern counties. An estimated 82.4 percent of vehicles registered in Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties are subject to testing. Owners do not pay for the mandatory vehicle emissions testing, but they are responsible for the cost of repairs if their vehicles do not meet applicable emissions standards. The program applies to most vehicles from model year 1968 forward registered in the seven-county area. However, farm trucks, motorcycles, some larger pickup trucks and sport utility vehicles, diesel engines, and vehicles of the two newest model years are exempt from testing.

Two state agencies administer the vehicle emissions testing program: the Department of Natural Resources (DNR) ensures the State complies with federal Clean Air Act requirements. The Department of Transportation (DOT) manages the State's contract with a private firm that owns and operates the testing stations. In fiscal year (FY) 2000-01, the vehicle emissions testing program was staffed through 11.0 full-time equivalent positions, most of which were within DOT. FY 2000-01 program expenditures totaled $11.2 million, including $10.5 million in contract costs. Program funding has three sources: the State's segregated Transportation Fund, the federal Congestion Mitigation and Air Quality program, and general purpose revenue.

Although vehicle emissions testing is a federal mandate in areas with significant levels of certain pollutants, some legislators and others have raised questions about the program's effectiveness, the methods by which counties are selected to participate, and whether there are other means of meeting federal air quality standards. To address these concerns, we compared Wisconsin's program to federal Clean Air Act requirements, examined program implementation efforts and the emissions testing process, reviewed DOT's management of the testing contract, and examined possible program changes that the Legislature could consider in light of both Wisconsin's expected attainment of federal air quality standards and the more stringent federal standards that are expected to be implemented in the near future.

Under the federal Clean Air Act, states have been required to continuously monitor their air quality since the 1970s and to operate vehicle emissions testing programs since the 1980s. The 1990 amendments to the Clean Air Act focused on reducing emissions from personal and commercial vehicles and required some vehicle emissions testing programs to become more stringent. To comply with Clean Air Act requirements, Wisconsin began testing vehicle emissions in six southeastern counties in 1984 and in a seventh in 1993. The program was enhanced in December 1995, in response to 1990 amendments to the Clean Air Act that emphasized reducing pollutants from mobile sources.

The federal Environmental Protection Agency (EPA) developed three model vehicle emissions testing programs to assist states in meeting Clean Air Act requirements. States have some discretion to adjust model parameters as long as federal emissions reduction goals are met. Six of Wisconsin's counties are required to follow the low-enhanced testing model; the seventh, Sheboygan County, is required to follow the basic testing model. However, to earn additional federal emissions reduction credits and avoid motorist confusion, an enhanced testing program is operated in all seven counties. Overall, Wisconsin's program is generally more stringent than the required federal model. For example, the testing method used to measure emissions is more stringent and accurate than the method required by the model, and Wisconsin's program tests more types of vehicles than required. However, vehicles are tested every two years rather than annually, as specified in the federal low-enhanced model.

In May 2001, the State began testing for nitrogen oxide emissions in order to meet air quality standards for 2002 and to comply with federal air quality improvement goals. Emissions test failure rates increased beginning in May 2001. From January through April 2001, the failure rate ranged from 8.0 to 9.1 percent; from May through December, it ranged from 14.1 to 18.2 percent. Overall, the failure rate was 14.2 percent. Vehicles from model year 1996 forward failed emissions testing only 1.7 percent of the time, while older vehicles had much higher failure rates. For example, 24.3 percent of tests performed on 1991 vehicles resulted in failure. Both vehicle repair costs and the number of vehicle repairs performed increased in 2001 following the implementation of nitrogen oxide testing. Cost waivers exempting a vehicle from meeting emissions standards are available to motorists who have spent more than $450 (or $200 in Sheboygan County) on vehicle repairs. The number of cost waivers also increased in 2001.

Envirotest Systems Corporation, the private firm that owns and operates the testing stations, was paid $10.6 million in 2001 for performing approximately 784,000 vehicle emissions tests under a contract managed by DOT. We note several instances in which DOT has not adequately managed the contract. For example, the contractor's payment is based on DOT's estimate of the number of tests to be conducted each year. Actual testing

volume during the first six years of the contract has been 14.7 to 18.2 percent lower than DOT estimated, but DOT has not attempted to renegotiate payment amounts. We include a recommendation for the planned five-year contract extension to include a flexible payment plan that can vary depending on the number of tests performed.

Customer waiting time standards require that 75 percent of tests per month begin within 15 minutes of a motorist's arrival at the testing station. We found repeated violations of the standard, yet DOT has not sought the financial remedies included in the contract. DOT officials indicated that waiting time standards have not been enforced because they believe the contract language is ambiguous and because DOT has not met its contractual responsibility to make the volume of monthly tests relatively consistent. However, DOT did not seek a written amendment to the contract that would increase its ability to effectively enforce the waiting time standards, nor did DOT officials seek clarification and guidance from the Department's legal counsel. In addition, it is not clear that DOT's responsibility to control testing volume is directly linked to the contractor's responsibility to meet waiting time requirements. We include recommendations that DOT amend the current contract to clarify waiting time standards and the process used to assess liquidated damages and that DOT pursue liquidated damages for waiting time violations during the current contract period.

Some legislators and others have questioned whether Wisconsin's vehicle emissions testing program is more stringent than necessary to achieve federal air quality standards. DNR officials report that they took an aggressive approach to improving air quality because federal highway funds could have been delayed if the State failed to meet federal deadlines and because continued emissions limits for factories and other commercial sources of pollution could have hindered economic growth. Air quality in Wisconsin has improved because of emissions reduction efforts, and the State expects to reach attainment/maintenance status in 2002, five years before the required federal deadline of November 2007.

If federal air quality improvement goals are met and Wisconsin achieves federal attainment/maintenance status in 2002, the Legislature could consider making additional changes to Wisconsin's program that would still be consistent with federal requirements. Some possible changes could be relatively easy to implement. For example, additional model years could be exempted from testing, or allowable vehicle emissions thresholds could be increased. These changes could be approved by the EPA as long as Wisconsin can demonstrate that the changes would have no significant effect on emissions levels. Some aspects of the State's current vehicle emissions reduction efforts would be difficult to change. For example, the federal Clean Air Act requires reformulated gasoline to be sold in six southeastern Wisconsin counties. Removing this requirement or exempting individual counties from all vehicle emissions testing would require a change in federal law.

The EPA has proposed a more stringent ozone measurement known as the eight-hour standard. DNR officials expect the new standard to take effect in 2002 or 2003. Implementation of the eight-hour standard may restrict the Legislature's ability to change the current program because some counties may be redesignated to nonattainment status, and other counties may be newly designated to nonattainment status. Based on the current interpretation of the eight-hour standard, DNR officials believe that 12 counties—Door, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Rock, Sheboygan, Washington, and Waukesha—may not meet federal air quality standards under the new measurement.

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Introduction

Federal law requires vehicle emissions testing in seven southeastern Wisconsin counties.

Under the federal Clean Air Act, Wisconsin and other states are responsible for enacting legislation and implementing programs to reduce ozone and other types of air pollution and to attain and maintain federal air quality standards. To comply with federal law, Wisconsin began a vehicle emissions testing program in six southeastern counties with high ozone levels in 1984, and in a seventh in 1993. The program was enhanced in December 1995, in response to 1990 amendments to the Clean Air Act that emphasized reducing pollutants from mobile sources. Under the current program, most vehicles registered in Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties are tested every two years to determine whether they emit certain pollutants in excess of applicable standards.

Owners do not pay for the mandatory vehicle emissions testing, but they are responsible for the cost of repairs if their vehicles do not meet emissions standards. Furthermore, unless a vehicle passes the test or receives a waiver, its registration cannot be renewed. The program applies to most motor vehicles from model year 1968 forward. However, farm trucks, motorcycles, some larger pickup trucks and sport utility vehicles, diesel-powered vehicles, and vehicles of the two newest model years are exempt from testing. An estimated 82.4 percent of the vehicles registered in the seven-county area are subject to testing.

Program administration and contract costs totaled $11.2 million in FY 2000-01.

The Department of Natural Resources (DNR) and the Department of Transportation (DOT) administer Wisconsin's vehicle emissions testing program. A private firm, Envirotest Systems Corporation, owns and operates 12 vehicle emissions testing stations in the seven counties under a contract that is managed by DOT. DOT also conducts daily audits of testing equipment and responds to motorists' telephone inquiries. DNR develops air quality management policies and has administrative and enforcement duties related to all of the State's air pollution control programs. In fiscal year (FY) 2000-01, the vehicle emissions testing program was staffed through 11.0 full-time equivalent (FTE) positions, most of which were within DOT. FY 2000-01 program expenditures totaled $11.2 million, including $10.5 million in contract costs. Program funding has three sources: the State's segregated Transportation Fund, the federal Congestion Mitigation and Air Quality program, and general purpose revenue (GPR).

Although vehicle emissions testing is a federal mandate in areas with significant levels of certain pollutants, some legislators and others have raised concerns about Wisconsin's vehicle emissions testing program. In particular, questions have been raised about:

- the program's cost and its effectiveness in contributing to the State's pollution reduction efforts;

- the methods by which counties are selected to participate; and

- whether there are other, more cost-effective means of meeting federal air quality standards.

In response to these concerns, and at the request of the Joint Legislative Audit Committee, we examined:

- the degree to which the vehicle emissions testing program follows federal requirements;

- the extent to which air quality in southeastern Wisconsin has improved;

- whether other alternatives to vehicle testing could be used; and

- the performance of the private firm responsible for vehicle emissions testing.

In conducting our review, we compared federal Clean Air Act requirements with Wisconsin's program, reviewed DOT's management of the contract between the private testing firm and the State, and observed operations at 9 of the 12 vehicle emissions testing stations. We also spoke with officials at the Environmental Protection Agency (EPA) regional office, interviewed DNR and DOT officials and staff, and spoke with managers and customers at the vehicle emissions testing stations.

Program Expenditures and Staffing

As shown in Table 1, program expenditures increased from $9.4 million in FY 1995-96 to $11.2 million in FY 2000-01. This 19.2 percent increase resulted primarily from increases in testing contract payments, which were supported by both the State's Transportation Fund and federal funds. In contrast, DOT's administrative costs during this time period decreased significantly, and DNR's administrative costs increased only slightly.

Table 1

Program Expenditures
FY 1995-96 through FY 2002-03

Fiscal Year	DOT Administrative Costs (Trans. Fund)	DNR Administrative Costs (GPR)	Emissions Testing Contract Payments (Trans. Fund)	Emissions Testing Contract Payments (Federal Funds)	Total
1995-96	$851,100	$55,700*	$7,836,800	$ 628,300	$ 9,371,900
1996-97	714,800	58,800	7,821,700	989,400	9,584,700
1997-98	706,000	59,300	7,606,800	1,700,000	10,072,100
1998-99	668,700	61,400	7,741,700	2,052,600	10,524,400
1999-2000	587,400	62,200	7,681,700	2,528,000	10,859,300
2000-01	565,300	68,000	7,667,300	2,854,200	11,154,800
2001-02**	555,000	68,200	7,881,700	3,115,800	11,620,700
2002-03**	555,000	68,200	7,881,700	3,754,800	12,259,700

* In FY 1995-96, funding for DNR's administrative costs came from the Transportation Fund.
** Amounts appropriated in 2001 Wisconsin Act 16.

Federal funds may not be available indefinitely.

Although Transportation Fund expenditures for the testing contract have remained relatively level, federal support increased from approximately $628,000 in FY 1995-96 to an estimated $3.8 million in FY 2002-03. At the start of this period, federal funds supported 7.4 percent of testing contract costs; in FY 2000-01, they supported 27.1 percent. Although federal funds currently cover a significant portion of the total cost of the testing contract, these funds may not be available indefinitely.

As shown in Table 2, DOT staffing levels related to the program declined from 12.7 FTE positions in FY 1995-96 to 10.0 in FY 2000-01. Time records from DNR show the equivalent of 1.3 FTE positions coded to the program in FY 1995-96, and 1.0 in FY 2000-01. Although DNR's Bureau of Air Management has approximately 167.3 FTE positions, the majority of staff in these positions are responsible for programs other than vehicle emissions testing. They perform duties related to monitoring air quality, issuing construction and operating permits to industrial and commercial operations that can be sources of air pollution, developing emissions inventories, and compliance and enforcement.

Table 2

DOT Vehicle Emissions Testing Program Staffing Levels
FY 1995-96 and FY 2000-01

Position*	FTE Positions FY 1995-96	FY 2000-01
Section Chief	0.5	0.6
DOT Program Supervisor	1.5	1.0
Environmental Analysis and Review Specialist	0.0	1.0
Vehicle Emissions Quality Assurance Specialist	4.0	4.0
Transportation Customer Representative	1.4	2.0
Motor Vehicle Program Specialist	2.0	0.4
Program Assistant	0.5	1.0
Quality Assurance/Environmental Engineer	1.0	0.0
Consumer Specialist	1.8	0.0
Total	12.7	10.0

* Position titles from FY 2000-01 have been used when applicable and may not be the same as those used in FY 1995-96.

Sources and Effects of Ozone

Exposure to ozone can aggravate chronic lung conditions and cause lung damage.

Ozone is a colorless, odorless gas produced by the interaction of nitrogen oxide and volatile organic compounds in warm weather. Stratospheric ozone is necessary for human health because it reduces the amount of harmful ultraviolet radiation reaching the earth's surface; however, ground-level ozone is harmful to humans and cannot drift upward to become stratospheric ozone. It can cause coughing and throat irritation, reduce lung function, aggravate asthma and chronic lung diseases such as emphysema and bronchitis, and inflame and damage the cells lining the lungs. In addition, ozone can damage livestock, trees, plants, and crops and can degrade rubber, fabrics, and other materials.

Federal law targets three man-made sources of ground-level ozone:

- personal and commercial vehicles driven on roads and highways, which are known as mobile sources;

- factories and other industrial or commercial operations, which are known as stationary sources; and

- miscellaneous sources such as fumes from dry cleaning establishments and certain types of paint; gasoline evaporation at service stations or from underground storage tanks; and exhaust emissions from small engines in lawnmowers, all-terrain vehicles, and other off-road machines and vehicles. These are known as area sources.

It is important to note that ozone itself is not emitted by these sources. Instead, these sources emit ozone precursors, such as nitrogen oxide, carbon monoxide, and hydrocarbons, from which ozone is formed through chemical reactions in the presence of sunlight and warm weather.

Vehicles are the primary source of ozone-producing emissions.

Strategies to reduce ozone levels will vary according to the type of pollutants emitted and the emissions source. In 1990, DNR estimated that personal and commercial vehicles driven on roads and highways were the source of 39.0 percent of ozone precursors emitted in southeastern Wisconsin. Stationary sources were estimated to account for 29.0 percent, and area sources for 32.0 percent.

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The 1990 amendments to the Clean Air Act focus on reducing emissions from mobile sources.

The Clean Air Act and its amendments are the basis for national air pollution control measures. Under the Clean Air Act, states have been required to continuously monitor their air quality since the 1970s and to operate vehicle emissions testing programs since the 1980s. The 1990 amendments to the Clean Air Act focus on reducing emissions from mobile sources and have required some existing vehicle emissions testing programs to become more stringent. Wisconsin's efforts to comply with Clean Air Act requirements for vehicle emissions testing are summarized in Appendix 1.

National Air Quality Standards

Six pollutants were targeted for reduction under the 1990 amendments to the Clean Air Act: ozone; carbon monoxide and nitrogen oxide, which are ozone precursors; lead; particulate matter; and sulfur dioxide. Two standards were established for each pollutant: the primary standard, which protects humans, and the secondary standard, which protects plants and animals. At a minimum, states are required to improve and maintain air quality to these standards. However, a state has the discretion to adopt more stringent standards if it believes they are necessary to protect humans or the environment. The Clean Air Act also allows states some discretion in designing implementation plans to improve air quality. Wisconsin has exercised some discretion in the design of its plan.

The federal primary standard for ozone limits ozone levels to less than 125 parts per billion over a one-hour period. It is commonly referred to as the one-hour standard and is the ozone standard in effect in Wisconsin.

Federal law required states to compare their air quality measurements from 1987, 1988, and 1989 to the federal air quality standards for each of the six targeted pollutants. Based on the measurements, all areas of the country have been designated either:

- unclassifiable areas, where data were insufficient, and later measurements were required;
- attainment areas, where the air quality met federal standards; or

- nonattainment areas, where measurements violated federal standards, and states were required to take steps to achieve and maintain the standards.

In Wisconsin, eleven counties—Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Waukesha, and Washington—were designated nonattainment areas based on their ozone measurements from 1987, 1988, and 1989.

Once a nonattainment area achieves federal air quality standards, a state can petition the EPA to redesignate the area to attainment/maintenance status. A state must demonstrate that the area has not violated federal air quality standards in the previous three years, and the EPA must determine that the air quality improvement is the result of permanent and enforceable reductions in emissions. The EPA must also approve the state's plan to maintain air quality.

Measuring Air Quality

DNR's Bureau of Air Management monitors daily ozone levels at the sites shown in Figure 1. During the federally defined ozone season of April 15 through October 15, ozone levels may not exceed the federal one-hour standard of less than 125 parts per billion.

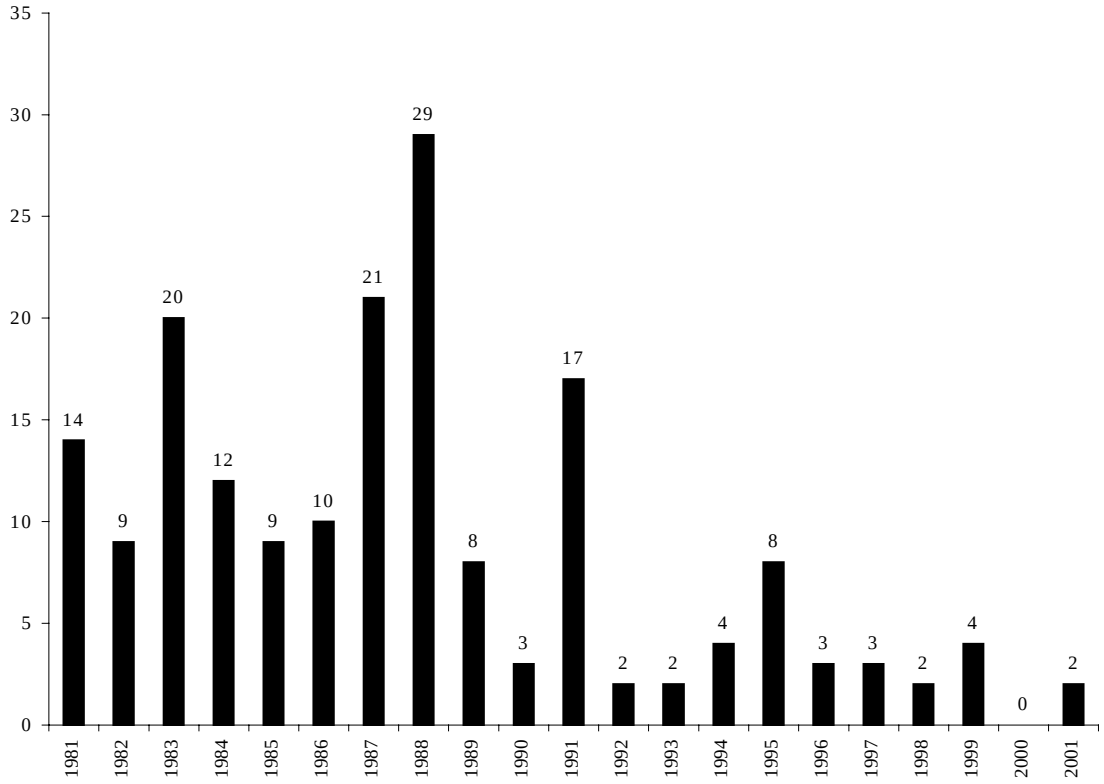
Figure 2 shows that the number of days in which ozone concentrations in southeastern Wisconsin exceeded the one-hour standard has varied considerably in the past 20 years, but the standard was exceeded in every year except 2000. However, the number of days in which the standard was exceeded has generally declined, which indicates air quality improvement in the region.

Figure 1

Ozone Monitoring Sites

Figure 2

Days per Year in Which Southeastern Wisconsin Ozone Levels Exceeded the Federal Standard
1981-2001



Federal law permits the ozone standard to be exceeded up to three times in a three-year period; the fourth time constitutes a violation. Violations cause a state to remain in nonattainment status. As shown in Table 3, over the three-year period from 1997 through 1999, six monitoring sites reported violations. However, no individual monitoring sites reported violations during the three-year period from 1999 through 2001.

Table 3

Individual Monitoring Site Ozone Levels
(in parts per billion)
1997 through 2001

County	Monitoring Site	1997-1999*	1998-2000	1999-2001
Brown	Green Bay	98	97	103
Columbia	Columbus	98	98	98
Dane	Madison	97	97	98
Dodge	Mayville	102	100	99
Door	Newport	116	112	112
Florence	Popple River	91	91	91
Fond du Lac	Fond du Lac	100	100	100
Jefferson	Jefferson	106	106	106
Kenosha	Kenosha	115	114	115
	Pleasant Prairie	**126**	**126**	124
Kewaunee	Kewaunee	116	107	107
Manitowoc	Collins	109	106	109
	Manitowoc	**128**	114	111
Marathon	Lake Dubay	95	95	93
Milwaukee	Alverno**	115	108	N/A
	Appleton Avenue	107	99	95
	Bayside	**129**	122	116
	Blakewood	119	117	119
	UW-Milwaukee North	114	107	114
Oneida	Harshaw	90	90	89
Outagamie	Appleton	103	102	102
Ozaukee	Grafton	**128**	114	113
	Harrington Beach	**134**	122	117
Racine	Racine	117	114	114
Rock	Beloit	101	101	101
	Milton**	93	N/A	N/A
Sauk	Devils Lake	94	94	94
Sheboygan	Sheboygan	**132**	**130**	122
St. Croix	Somerset	87	89	89
Vernon	Wildcat Mountain	85	82	82
Walworth	Lake Geneva	101	100	100
Washington	Slinger	105	103	104
Waukesha	Waukesha	109	104	104
Winnebago	Oshkosh	97	97	96

* The numbers shown in **bold** indicate violations of the federal one-hour standard of 125 parts per billion.

** According to DNR officials, these sites were discontinued to reduce monitoring costs, because their readings were redundant with those from other existing sites.

Although ozone concentrations have declined, it is difficult to determine the extent to which specific mobile, stationary, or area source control efforts have contributed to air quality improvements. Instead, the EPA has developed modeling programs for states to use in estimating the effects of various emissions reduction efforts.

Requirements for Nonattainment Areas

States that include nonattainment areas are required to develop plans for reducing the pollutants that exceed federal standards. Each state's plan is required to specify the means by which federal air quality standards will be achieved by federal deadlines and to include information on enforcement. Additionally, plans are to provide for reductions sufficient to compensate for expected increases in emissions over time. Before they are implemented, state plans and any subsequent changes must be approved by the EPA. They become federal law upon publication in the Federal Register.

A state's federal highway funds may be delayed for failure to conform with federal requirements.

States that do not conform to Clean Air Act requirements may be sanctioned by the federal government. For example, new stationary sources may be required to increase their emissions reductions, or the EPA may impose a federal plan to improve air quality. In addition, federal law allows the Federal Highway Administration to immediately delay highway funding for expansion projects if a state's nonattainment areas do not conform to federal requirements. Funding for both safety improvements and efforts to reduce vehicle use is exempt from this provision. The Federal Highway Administration has delayed funding in Massachusetts, Missouri, and, most recently, California; however, federal funds were released for Massachusetts and Missouri once those states conformed.

Effect of the 1990 Amendments on Wisconsin

As noted, 11 counties in southeastern Wisconsin were originally designated ozone nonattainment areas under the 1990 amendments to the Clean Air Act. There are five levels of ozone nonattainment: marginal, moderate, serious, severe, and extreme. In addition, an area may be designated a rural transport area when pollutants are not generated in significant quantities within the area but migrate into it. Wisconsin's nonattainment areas were designated as follows:

- Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties were designated severe nonattainment areas;

- Kewaunee, Manitowoc, and Sheboygan counties were designated moderate nonattainment areas;

- Walworth County was designated a marginal nonattainment area; and

- Door County was designated a rural transport area.

Because of the transient nature of ozone pollution, ozone nonattainment areas are designated on a countywide basis. Thus, if ozone measurements exceed federal standards at only one monitoring site in a county, federal law requires that the entire county be designated a nonattainment area. Additionally, designations must include all counties in a federal metropolitan statistical area, regardless of air quality measurements at individual monitoring sites. For purposes of vehicle emissions testing, Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties are all part of the Milwaukee metropolitan statistical area.

As shown in Table 4, federal requirements for emissions control programs differ according to the severity of the ozone nonattainment designation.

Table 4

Federal Requirements for Ozone Nonattainment Areas

	Rural Transport and Marginal	Moderate	Serious	Severe	Extreme
Reasonably available control technology	●	●	●	●	●
Stationary source permits	●	●	●	●	●
Gasoline vapor recovery equipment		●	●	●	●
Basic vehicle emissions testing		●			
Enhanced vehicle emissions testing			●	●	●
Clean fuel fleet program			●	●	●
Reformulated gasoline				●	●
Years allowed to reach attainment/maintenance*	3	6	9	15 or 17	20

* The specific date by which an area has to meet federal air quality standards varies depending on when emissions reduction programs were actually implemented. Programs in several states were delayed because of legal challenges regarding the Clean Air Act.

The EPA originally expected to designate Sheboygan County as a serious ozone nonattainment area, but the State presented more current air quality measurement data that allowed Sheboygan County to be designated as a moderate nonattainment area. Thus, reformulated gasoline and clean fuel fleets, which are required in severe nonattainment areas, are not federal requirements in Sheboygan County. Other nonattainment counties could not be redesignated because more current measurements indicated no improvement in their air quality. However, both Kewaunee and Manitowoc counties qualified for a federal exemption from the vehicle emissions testing requirement because they have population densities of less than 200 persons per square mile. The EPA redesignated Kewaunee, Sheboygan, and Walworth counties to attainment/maintenance status in August 1996, after it determined that air quality had improved in those counties because of permanent and enforceable emissions reductions.

Table 5 lists the emissions control programs currently in effect in each of the 11 counties that were originally designated ozone nonattainment areas under the 1990 amendments to the Clean Air Act. The types of federally required ozone control programs include:

- installation of reasonably available control technology on stationary sources of pollution, with specific requirements based on the amount of pollution emitted, the severity of pollution, and the industrial category of the area;

- emissions permitting standards for most stationary sources, and establishment of detailed emission limits and related requirements, such as monitoring and reporting;

- vapor recovery equipment affixed to gasoline pumps to reduce emissions during refueling;

- basic vehicle emissions testing programs, which require passenger cars to undergo emissions testing and repairs;

- enhanced testing programs, which are more stringent programs that require passenger cars and trucks to undergo emissions testing and repairs;

- clean fuel fleets, which require owners of a fleet with more than ten vehicles (excluding rental, emergency, and non-road vehicles) to operate low-emission vehicles that run on alternative fuels such as ethanol, methanol, and propane; and

- the sale of reformulated gasoline, which is designed to burn more efficiently than other gasoline.

Table 5

Ozone Severity Designations and Emissions Control Programs for 11 Wisconsin Counties

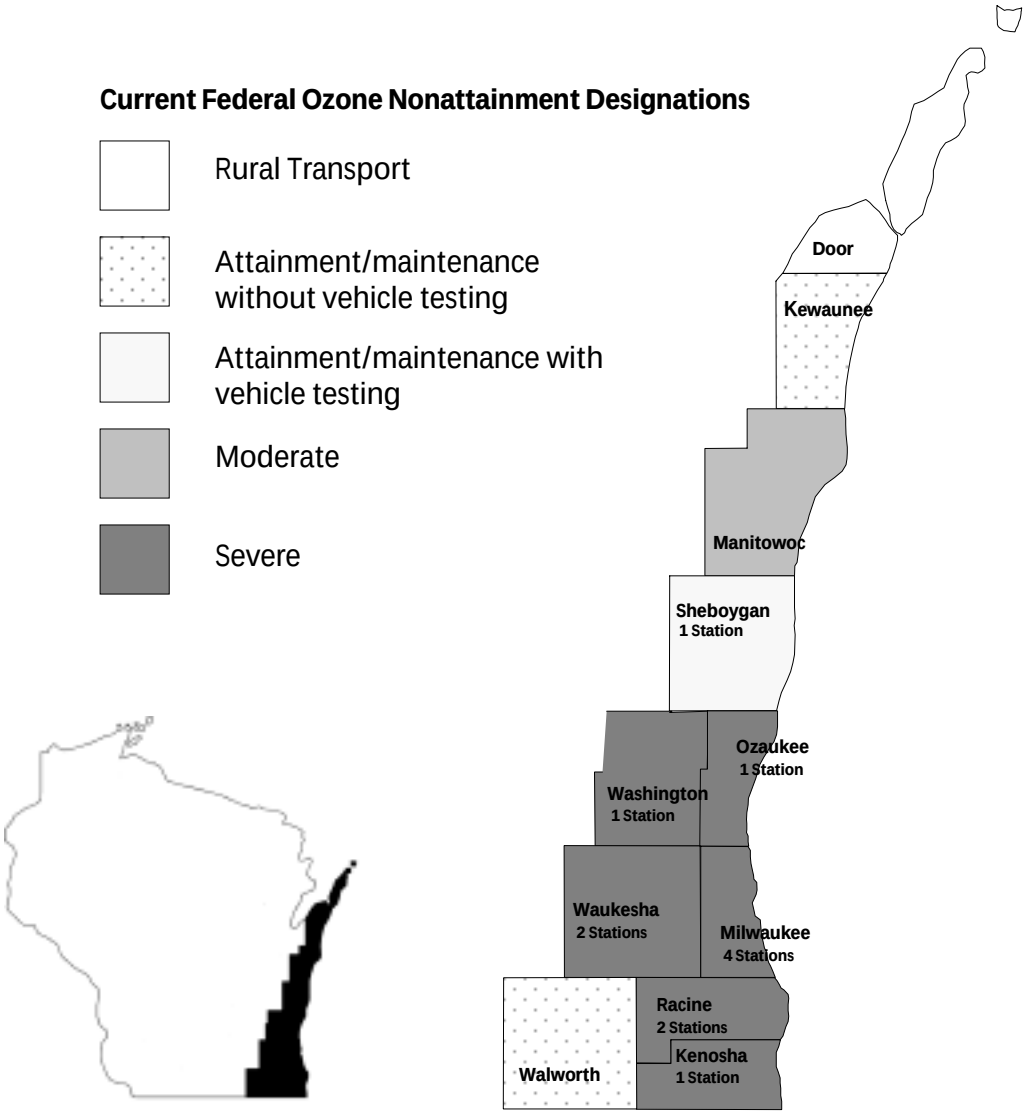
County	Original Designation	Current Designation	Current Emissions Control Programs
Door	Rural Transport	Rural Transport	None*
Kenosha	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets
Kewaunee	Moderate	Attainment/ Maintenance	Reasonably available control technology, permits, and gasoline vapor recovery
Manitowoc	Moderate	Moderate	Reasonably available control technology, permits, and gasoline vapor recovery
Milwaukee	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets
Ozaukee	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets
Racine	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets
Sheboygan	Moderate	Attainment/ Maintenance	Reasonably available control technology, permits, vehicle emissions testing, and gasoline vapor recovery
Walworth	Marginal	Attainment/ Maintenance	Reasonably available control technology (based only on technology required prior to the 1990 Clean Air Act Amendments) and permits
Washington	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets
Waukesha	Severe	Severe	Reasonably available control technology, permits, vehicle emissions testing, gasoline vapor recovery, reformulated gasoline, and clean fuel fleets

* Door County did not have any requirements under the 1990 amendments because rural transport areas are required to have only those programs that were in place before the 1990 amendments were enacted.

Figure 3 shows the location, current ozone severity designation, and number of vehicle testing stations in Wisconsin's 11 ozone nonattainment counties.

Figure 3

Ozone Nonattainment Areas in Wisconsin



Ten other states—California, Connecticut, Delaware, Illinois, Indiana, Maryland, New Jersey, New York, Pennsylvania, and Texas—currently have counties designated as severe ozone nonattainment areas

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While federal law mandated vehicle emissions testing in seven Wisconsin counties because of their ozone pollution levels, the State has limited discretion in designing and operating its program. Wisconsin's program requirements are more stringent than some elements of the applicable federal testing model and less stringent than others.

Vehicle Emissions Testing after the 1990 Amendments

To assist states in meeting the vehicle emissions testing requirements of the 1990 Clean Air Act amendments, the EPA designed three model programs—basic, low-enhanced, and high-enhanced—that vary according to:

- the types of tests to be conducted;
- the types of vehicles to be tested;
- the frequency of testing; and
- allowable emissions standards and waiver and compliance rates.

States may adjust elements of the applicable federal testing model as long as overall federal emissions reduction goals are met.

States may relax elements of the applicable federal testing model by, for example, testing vehicles less frequently than the model specifies, as long as overall federal emissions goals are met. If they do so, other program parameters may need to be adjusted. Appendix 2 summarizes the program parameters for the three models.

Under the 1990 amendments and federal air quality standards, Wisconsin was required to operate at least a basic testing program in Sheboygan County and to meet enhanced emissions reduction goals associated with the low-enhanced model in Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties. Although basic testing parameters were permissible in Sheboygan County, the State began operating a uniform low-enhanced program in southeastern Wisconsin, including Sheboygan County, in 1995.

The same program operates in seven counties, but cost waiver limits are lower in Sheboygan County.

Had the less stringent basic program design been put in place for Sheboygan County, only cars would have been subject to testing there. Instead, under the uniform program design, both cars and other vehicles that are rated by the manufacturer as weighing up to 10,000 pounds when fully loaded with cargo and passengers are tested in Sheboygan County. There is, however, one difference between Sheboygan County and the other six counties in which the low-enhanced program operates: Vehicles registered in Sheboygan County qualify for a waiver from meeting emissions standards if they fail to pass emissions tests after their owners have made $200 in related repairs. Pre-1981 vehicles qualify for a waiver after $75 in repairs. In the other six counties, the cost waiver limit is $450 in repairs, regardless of model year, which is consistent with Clean Air Act requirements. Because of the lower cost waiver requirements, a disproportionate number of cost waivers are received in Sheboygan County.

Appendix 3 summarizes differences between the low-enhanced program in effect in Sheboygan County and the basic federal program model. According to DNR officials, the more stringent low-enhanced program was implemented in Sheboygan County because:

- a more stringent program reduces emissions to a greater extent, and thereby assists Wisconsin in qualifying to be redesignated an attainment/ maintenance area;

- standardization of program requirements throughout southeastern Wisconsin eliminates any possible confusion about these requirements and allows motorists to have their vehicles tested at any of the 12 stations in the region; and

- a uniform program eliminates any incentive residents of the other six counties may have to register their vehicles in Sheboygan County in order to avoid more stringent testing requirements.

Wisconsin's program is generally more stringent than the required federal model.

While Wisconsin was directed by the EPA to operate a low-enhanced testing program in Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties, the State exercised discretion in designing its testing program. Overall, Wisconsin's program is generally more stringent than the federal model. For example:

- the federal model suggests testing vehicles with a weight rating of up to 8,500 pounds, but Wisconsin tests vehicles with weight ratings of up to 10,000 pounds;

- Wisconsin uses a type of emissions test that simulates actual driving conditions and that DNR officials indicate is more stringent and accurate than other testing methods; and

- Wisconsin tests gas caps on vehicles from model year 1971 forward to ensure that fumes are unable to leak from the gas tank.

However, Wisconsin's program includes some parameters that are less stringent than federal standards, such as:

- requiring biennial instead of annual testing of vehicles;

- exempting the two newest model years from testing;

- not using remote sensing technology to detect vehicle emissions; and

- allowing special testing exemptions, such as for farm trucks, and partial exemptions for vehicles with hobbyist or collector license plates.

For a comparison of Wisconsin's program to the federal low-enhanced model, see Appendix 4.

The Legislature has modified vehicle testing exemptions in recent years.

It should be noted that the Legislature was able to modify some aspects of Wisconsin's program in recent years because the State demonstrated to the EPA that the changes would not significantly affect emissions levels. 1993 Wisconsin Act 288 raised the weight rating of vehicles subject to testing from 8,000 pounds to 14,000 pounds, and 1995 Wisconsin Act 137 exempted farm trucks from the program. However, 1997 Wisconsin Act 27, the 1997-99 Biennial Budget Act, then lowered the weight rating exemption from 14,000 pounds to 10,000 pounds. At the time of the change, exempted vehicles with a weight rating of 10,000 pounds or more were often commercial delivery trucks. However, certain models of today's larger pickup trucks and sport utility vehicles are exempt because they have weight ratings of more than 10,000 pounds.

Statutes include fines or other sanctions for individuals who do not comply with vehicle testing requirements because they, for example, tamper with emissions control equipment or do not submit a vehicle to emissions testing in a nonattainment area. Specifically:

- under s. 285.30(6)(d), Wis Stats., a vehicle's registration may be suspended or canceled if the owner tampers with the vehicle's emission control equipment;

- under s. 341.04(3)(a), Wis Stats., anyone who operates a vehicle without proper registration—a possible result of failing to submit a vehicle to emissions testing—may be fined up to $200; and

- under s. 341.60, Wis Stats., anyone who applies to register a vehicle using a false name, address, or location at which the vehicle is kept may be fined up to $200 or imprisoned for up to six months.

Furthermore, s. 341.04(1), Wis. Stats., was amended under 1997 Wisconsin Act 27 to require temporary license plates issued by DOT to be displayed by motorists who have registered their vehicles but have not yet received license plates. Before this change, motorists could falsely indicate they had applied for license plates by posting handmade signs and thereby avoid vehicle emissions testing.

Statewide, only six citations were issued for fraudulent registration in 2001, and 43,232 were issued for operating a vehicle without proper registration. However, it is unlikely that all of these citations were related to efforts to avoid meeting vehicle emissions testing requirements. DOT's traffic citation system does not track citations issued under s. 285.30(6)(d), Wis. Stats., which levies a fine for tampering with a vehicle's emission control system.

DOT officials have indicated that by October 2003, they plan to implement a new database that will detect instances in which the address listed on a vehicle owner's registration does not match the address listed on his or her driver's license. This will allow DOT to more easily detect and fine vehicle owners who live in counties that require emissions testing but register their vehicles elsewhere to avoid the testing requirement.

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Non-exempt vehicles must undergo one of three emissions tests that measure carbon monoxide, hydrocarbons, and nitrogen oxide levels and must pass a gas cap pressure test. New emissions standards have increased both the failure rate and the average cost to repair vehicles that pass subsequent tests; however, waivers from emissions standards are available to limit the cost of repairs motorists must make. In addition, the testing contractor provides technical assistance and advice to motorists and area repair technicians.

Test Procedures

In the seven-county area, 82.4 percent of the vehicles are subject to emissions testing.

We estimate that 82.4 percent, or 1.4 million of the 1.7 million vehicles registered in the seven-county vehicle emissions testing area, are subject to biennial testing. Approximately 300,000 vehicles are exempt from testing because they do not contribute significantly to ozone pollution, because legislative action exempted them, or because DNR has determined it would not be cost-effective to test them. Exemptions include:

- model year 1967 and older vehicles;
- diesel vehicles;
- motorcycles;
- farm trucks;
- vehicles with weight ratings of over 10,000 pounds;
- vehicles of the two newest model years—for example, during 2001, vehicles from model year 2001 and 2002 were exempt, and vehicles with even-numbered model years earlier than 2002 were subject to testing.

There are 12 emissions testing stations in the seven-county testing area: four in Milwaukee County; two each in Racine and Waukesha counties; and one each in Kenosha, Ozaukee, Sheboygan, and Washington counties. These 12 stations have a total of 44 testing lanes and are each open 60 hours per week, including early evenings and Saturdays. Motorists may have their vehicles tested at any station, and stations are located within an average of six miles' commuting distance for most motorists.

The testing process has three steps:

1. Once the vehicle is in the testing lane, an inspector enters the vehicle identification number and the license plate number into the contractor's computer system. Data related to that vehicle, such as previous test results, the date on which the registration expires, and physical characteristics of the vehicle, are provided to the inspector by the computer system. These data cannot be altered by inspectors and are maintained through an interface between the contractor's computer system and DOT's.

2. The appropriate emissions test is performed by trained and certified inspectors employed by the contractor.

3. A gas cap pressure test is conducted on vehicles from model year 1971 forward.

Motorists may renew their registration at the testing station.

When testing is complete, the motorist receives a copy of the test results. To pass, a vehicle must be below applicable emissions thresholds for carbon monoxide, hydrocarbons, and nitrogen oxide and must pass the gas cap pressure test. For a service fee of $3, the motorist may renew the vehicle's registration at the testing station. This service was phased in by the contractor and DOT in 1997. It has been available at all testing stations since October 1999. The contractor retains the $3 service fee, which resulted in approximately $663,000 in additional revenue for the contractor in FY 2000-01.

Vehicles must undergo one of three emissions tests:

- the Inspection/Maintenance 240 (I/M240) test, which simulates actual driving conditions;

- the two-speed idle test; or

- the onboard diagnostic (OBD) test.

The I/M240 and two-speed idle tests involve actual measurement of exhaust gases. OBD is the newest testing method, and the standard procedure for all vehicles from model year 1996 forward. It uses the engine's computer to determine emissions levels. Nearly all vehicles can be tested with the OBD or I/M240 methods. For example, in October 2001, 35.2 percent of all tests were completed with OBD, 61.8 percent were completed using I/M240, and the remaining 3.0 percent were completed with the two-speed idle test.

To conduct the I/M240 test, the vehicle is positioned on a treadmill-like device known as the dynamometer, which is located on the floor of the testing lane. The inspector simulates actual driving conditions through a prescribed series of accelerations and decelerations for up to 240 seconds. Some tests are complete in as little as 30 seconds, in what is known as a fast-pass, if readings fall well below applicable thresholds during that period.

Allowable emissions thresholds vary by vehicle type, weight, and model year.

Throughout the test period, tailpipe emissions are measured and compared to Wisconsin's standards for the vehicle make and model. Acceptable thresholds for these pollutants vary by vehicle type, weight, and model year so that, for example, a 1968 vehicle is permitted higher emissions than a 1999 vehicle. A vehicle is considered to have failed the I/M240 test if pollutant levels exceed the designated threshold for more than two seconds. If the vehicle fails by a small margin (below twice the threshold), the testing computer will require an automatic second-chance test to ensure an accurate reading, because emissions levels can vary a small amount if the engine cooled before the test.

OBD testing indicates whether the vehicle's emissions equipment has failed.

OBD testing, which began July 16, 2001, uses the emissions diagnostic component of a computer in the engine of vehicles from model year 1996 forward to determine whether vehicle equipment that can cause increased emissions has malfunctioned. The test lasts only ten seconds and provides a more detailed analysis of a vehicle's emissions system than other methods. It requires connecting the testing station computer to a connector located beneath the vehicle's dashboard. The vehicle's computer then provides a detailed reading that indicates whether emissions-related equipment has failed or will soon fail.

Although the two-speed idle test is now the least-frequently used of the three testing methods, it was the only means of testing from April 1984 until December 1995, when the enhanced testing program was instituted. The two-speed idle test is used on vehicles that are incompatible with the other two testing methods, such as those retrofitted for disabled persons and those not able to accelerate quickly enough for the I/M240 test. A vehicle undergoing the test idles at two different speeds while tailpipe emissions are measured. Before the test, the vehicle undergoes a nine-point equipment inspection to ensure that emissions equipment installed by the manufacturer is not missing or has not been altered or disconnected. If equipment has been intentionally altered, the motorist may be required to have the vehicle repaired and tested using the I/M240 procedure.

Failure Rates

Only 1.7 percent of tests of newer vehicles resulted in failure in 2001.

We reviewed failure rates for all tests completed in 2001 and found that overall, the failure rate was 14.2 percent. We also found that failure rates increased during 2001. Factors contributing to failure include a vehicle's maintenance history, its make and model year, and its mileage. As shown in Table 6, 37.9 percent of testable vehicles in 2001 were from model years 1996 forward. These vehicles, which are subject to OBD testing, had a low failure rate of 1.7 percent. In contrast, older vehicles had much higher failure rates: for example, the failure rate for tests of model year 1991 vehicles was 24.3 percent.

Table 6

Failure Rates by Model Year
2001

Model Year	Number of Testable Vehicles*	Percentage	Number of Tests Performed	Number of Failures	Failure Rate
1968-75	18,886	1.3%	3,736	1,050	28.1%
1976-80	31,743	2.2	9,802	3,552	36.2
1981-85	92,134	6.4	31,520	10,572	33.5
1986-90	309,756	21.6	204,471	61,345	30.0
Subtotal	452,519	31.5	249,529	76,519	30.7
1991	78,747	5.5	21,112	5,127	24.3
1992	80,830	5.6	84,332	13,372	15.9
1993	87,554	6.1	19,181	2,909	15.2
1994	91,719	6.4	91,417	5,660	6.2
1995	99,576	7.0	18,141	903	5.0
Subtotal	438,426	30.6	234,183	27,971	11.9
1996	93,481	6.5	88,641	3,563	4.0
1997	103,052	7.2	4,844	140	2.9
1998	107,366	7.5	85,515	866	1.0
1999	120,204	8.4	5,739	26	0.5
2000	119,089	8.3	100,897	360	0.4
Subtotal	543,192	37.9	285,636	4,955	1.7
Total	1,434,137	100.0%	769,348	109,445	14.2

* As of September 2001.

Failure rates have increased since nitrogen oxide testing began in May 2001.

In May 2001, the State began testing for nitrogen oxide emissions after DNR determined that vehicle emissions testing for carbon monoxide and hydrocarbons alone would not be sufficient for meeting air quality standards for 2002 or for complying with federal air quality improvement goals. As shown in Table 7, failure rates increased beginning in May. They had ranged from 8.0 to 9.1 percent from January through April 2001, but by the end of May they were 14.1 percent. Failure rates reached a high of 18.2 percent in November 2001. By that time, both nitrogen oxide emissions testing and the OBD testing procedure had been in place for several months. However, the generally low failure rate of newer vehicles, which was shown in Table 6, suggests nitrogen oxide testing is more likely to account for the increase in failure rates.

Table 7

Failure Rates by Test Type
2001

Month	I/M240 Failure Rate	OBD Failure Rate	Two-speed Idle Failure Rate	Total Failure Rate: All Test Types
January	8.3%	—	3.7%	8.0%
February	8.8	—	4.3	8.3
March	9.3	—	5.1	9.1
April	9.5	—	4.7	9.1
May*	14.8	—	6.0	14.1
June	16.6	—	6.4	15.9
July**	21.3	2.7%	7.3	16.8
August	26.9	2.7	9.0	17.8
September	25.5	3.0	8.6	16.7
October	26.7	2.9	9.5	17.9
November	26.5	3.0	10.2	18.2
December	25.4	2.7	7.4	17.2

* Nitrogen oxide testing began May 7, 2001.
** OBD testing began July 16, 2001.

Vehicle Repairs

If a vehicle fails the emissions test, the inspector provides the motorist with a report that includes emissions data for all pollutants, gives general guidance for repair technicians, and details the statistically probable cause of failure based on the vehicle's emissions. If OBD testing is used, the relevant computer diagnostic codes are also included. Information about certified repair facilities in the area is also provided in a booklet, the Emissions Repair Facility Report. This booklet, which is published by the contractor and updated every six months, includes information on the number and percentage of vehicles repaired by each facility that subsequently passed emissions tests.

Vehicle owners have the option of completing repairs themselves or having them completed by a certified technician, who must document both the repairs and their cost on the vehicle inspection report. Up to three emissions tests may be taken annually at no charge; however, vehicles that fail a test must be repaired before subsequent tests will be given. The charge for fourth and subsequent tests is $10. These tests also require an additional nine-point under-hood inspection to ensure that emissions-related equipment has not been altered.

Repair costs and the number of repairs increased after nitrogen oxide testing began.

Because repair costs must be documented on vehicle inspection reports, we were able to determine that after the implementation of nitrogen oxide testing, the average repair cost increased for vehicles that passed subsequent tests. As shown in Table 8, this cost averaged $134 in January 2001 and reached a high of $180 in September 2001. Average repair costs for vehicles that failed subsequent tests were not as high as those for vehicles that subsequently passed after May, when nitrogen oxide testing began. In total, the number of repairs also increased after the start of nitrogen oxide testing, reaching a high of 7,092 in August 2001. Although motorists must pay for vehicle repairs, DOT officials indicate that repairs often result in increased fuel economy, thus providing some cost savings to the motorist.

Table 8

Average Vehicle Repair Costs
2001

Month	Average Repair Cost for Vehicles that *Passed* Subsequent Tests	Number of Repairs	Average Repair Cost for Vehicles that *Failed* Subsequent Tests	Number of Repairs	Total Repairs*
January	$134	2,450	$133	1,128	3,578
February	144	2,039	151	1,002	3,041
March	132	2,689	149	1,371	4,060
April	117	2,540	143	1,394	3,934
May**	142	2,755	151	2,043	4,798
June	173	3,294	142	2,647	5,941
July	161	3,555	141	2,905	6,460
August	163	4,001	150	3,091	7,092
September	180	3,365	157	2,556	5,921
October	178	3,858	142	3,171	7,029
November	179	3,174	137	2,546	5,720
December	167	2,652	133	2,067	4,719

* Some vehicles may have been repaired more than once.
** Nitrogen oxide testing began May 7, 2001.

We spoke with two repair technicians who indicated that nitrogen oxide-related repairs present a challenge to the repair industry, because it is more difficult to diagnose the cause of this type of failure. These failures may require the replacement of a catalytic converter, which is an expensive component. As a result, motorists often want to try less-expensive repairs first.

Technical Assistance Centers

The contractor operates two technical assistance centers serving motorists and the repair industry.

The contractor operates two technical assistance centers in Milwaukee County to provide free diagnostic services to motorists whose vehicles fail emissions tests two or more times. These centers help motorists develop a repair strategy, handle some complaints and disputes, manage a repair technician hotline, and review some waiver requests. The centers are managed by certified repair technicians who have at least two years of experience and have passed an emissions repair course offered through a cooperative arrangement between Waukesha Technical College, the contractor, and DOT. Emissions repair training classes are required by the federal Clean Air Act and are provided through the coordinated efforts of area technical colleges, DNR, DOT, and the contractor as an ongoing service to the repair industry.

Waivers

In some cases, vehicles were not manufactured with proper emissions equipment or cannot be repaired sufficiently to pass emissions testing without expensive repairs. The low-enhanced emissions testing model allows states to grant waivers to up to 3 percent of failed vehicles to reduce the economic burden on motorists. It also allows exemptions for vehicles manufactured without proper emissions equipment.

Waivers exempt vehicles from emissions standards if repair costs exceed set limits.

In Wisconsin, two types of waivers permit a vehicle to be exempted from meeting emissions standards for one biennial testing cycle: cost waivers and diagnostic waivers. If a vehicle fails re-inspection after $450 in repair costs (or in Sheboygan County, $200 in repair costs for model years from 1981 forward or $75 for pre-1981 vehicles) the vehicle qualifies for a cost waiver, which can be issued at any testing site as long as the motorist has proof of costs meeting or exceeding the limit. When staff at the technical assistance center determine that a vehicle cannot be repaired to meet emissions standards, a diagnostic waiver may be available in limited circumstances.

From December 1995 through 2000, the combined waiver rate, measured as a percentage of completed tests, was under 1.0 percent. During 2001, the waiver rate remained low; however, on average, the number of cost waivers issued per month more than doubled after the implementation of nitrogen oxide testing. From January through April 2001, an average of 152.8 cost waivers were issued per month; from May through December 2001, the average was 406.5 per month. The number of diagnostic waivers also increased. Table 9 shows the number of diagnostic and cost waivers and the waiver rate for each month in 2001.

Table 9

Testing Waivers
2001

Month	Diagnostic Waivers	Cost Waivers	Total	Waiver Rate as a Percentage of Completed Tests
January	0	149	149	0.2%
February	0	117	117	0.2
March	0	191	191	0.3
April	0	154	154	0.2
May*	1	250	251	0.4
June	7	350	357	0.5
July	10	420	430	0.6
August	11	528	539	0.7
September	13	421	434	0.7
October	12	519	531	0.7
November	5	426	431	0.7
December	5	338	343	0.7

* Nitrogen oxide testing began on May 7, 2001.

Test Accuracy

Test accuracy is monitored in several ways by DOT and the contractor.

Test results must be accurate to ensure public confidence in the testing program, to achieve required emissions reductions, and to prevent unnecessary vehicle repairs. Wisconsin follows federal requirements to ensure accuracy of emissions testing in several ways:

- DOT conducts weekly inspections of testing equipment at each station, including examining the gas cap pressure and emissions analysis equipment;
- the testing equipment automatically self-calibrates every two to three hours and shuts down if the computer detects a problem;
- the DOT vehicle emissions inspection program supervisor can monitor the computerized testing equipment from the regional headquarters;

- video surveillance cameras record all activity in the testing lanes;

- the contractor's employees cannot gain access to or manipulate the computerized testing equipment; and

- inspectors are required to undergo an internal training program with written and hands-on components, and they must pass a written examination with a score of at least 80 percent. Inspection certification must be renewed every two years.

The contract contains language that penalizes the contractor and its employees for fraudulent or improper testing procedures. In June 1999, five lane inspectors at the Milwaukee South testing station were found to have solicited bribes and falsified test results. They applied the test results of passing vehicles to vehicles likely to fail, thus giving a false passing result. At DOT's request, the contractor terminated their employment.

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Envirotest Systems Corporation was paid $10.6 million for its testing responsibilities in 2001, based on a contract that reflected DOT's 1993 estimates of testing volume. Actual testing volume has been lower than DOT's estimates; therefore, the cost per test has been higher than anticipated. However, DOT has not attempted to renegotiate the contract and has not pursued liquidated damages from the contractor for performance violations such as long waiting times at testing stations. DOT should clarify language in the planned five-year contract extension to enhance its ability to enforce contract provisions.

The Testing Contract

Two vendors submitted final bids to DOT's July 1993 request for proposals for a seven-year contract to operate an enhanced motor vehicle testing program beginning in late 1995. The successful contractor was to be responsible for procuring inspection sites; building inspection stations; conducting emissions testing, waiver functions, and vehicle registration; testing fuel efficiency if delegated by DOT; and submitting related data and documentation to DOT.

Envirotest, which was then operating the State's basic emissions testing program, was awarded the contract because it proposed the lowest cost per test and fulfilled all of the other requested criteria. One reason Envirotest's bid was low was that as the owner and operator of existing testing stations in Wisconsin, Envirotest did not need to include start-up costs related to land acquisition and station construction in its bid. At the time of the bidding process, Envirotest also operated emissions testing programs in British Columbia, Colorado, Connecticut, Florida, Illinois, Maryland, Minnesota, Ohio, and Pennsylvania.

The contractor's monthly payment does not vary with the number of tests conducted.

The contract payment schedule shown in Table 10 was based on DOT's estimates of testing volume, as well as a $15,000 monthly public information fee. DOT officials indicate that the estimates were made by analyzing predicted population growth and vehicle purchase patterns and that they were predicated on higher failure rates and on the testing required at the time the contract was signed, which included vehicles with weight ratings between 10,000 and 14,000 pounds. The monthly payment amount does not change if the actual volume differs from the amount specified in the contract.

Table 10

Payment Schedule Specified in the Contract
1996 through 2002

Program Year*	Estimated Emissions Testing Volume	Estimated Cost per Test	Monthly Payment**	Total Annual Payment
1996	862,000	$10.04	$736,207	$8,834,484
1997	858,000	10.04	732,860	8,794,320
1998	901,000	10.65	814,637	9,775,644
1999	904,000	10.65	817,300	9,807,600
2000	913,000	11.30	874,742	10,496,904
2001	919,000	11.30	880,392	10,564,704
2002	928,000	11.99	942,227	11,306,724

* The program year runs from the previous December 1 to November 30 of the year listed.
** The contract specifies a $15,000 per month public information fee. Payment of this fee was discontinued after May 2001.

Testing Volume and Payments to the Contractor

Annual testing volume has been 14.7 to 18.2 percent below DOT's original estimates.

We reviewed testing data from 1996 through 2001 and found that the testing volume DOT anticipated has not materialized. As shown in Table 11, actual testing volume was lower than expected in each year of the contract's first six years. The difference ranged from 14.7 to 18.2 percent below original estimates. Because the contract has not been renegotiated to reflect actual testing volume, actual per test costs have been significantly higher than originally forecast.

Table 11

Vehicle Emissions Program Testing Volume
1996 through 2001

Year	Expected Volume	Actual Volume	Difference	Percentage Difference	Per Test Cost in Contract	Actual per Test Cost*
1996	862,000	705,188	156,812	18.2%	$10.04	$12.27
1997	858,000	711,968	146,032	17.0	10.04	12.10
1998	901,000	749,124	151,876	16.9	10.65	12.81
1999	904,000	754,179	149,821	16.6	10.65	12.77
2000	913,000	756,845	156,155	17.1	11.30	13.63
2001	919,000	783,653	135,347	14.7	11.30	13.25

* Based on contract payment amount for testing services; does not include public information fee.

DOT did not attempt to renegotiate the contract despite significantly lower testing volume.

Given the significantly reduced testing volume in the early years of the contract, DOT could reasonably have been expected to consider renegotiating the contracted payment provisions. DOT officials indicate they considered renegotiating the payment amount but did not do so because that could have given the contractor an opportunity to negotiate a higher per test cost, and thus negate any potential savings. However, any changes to the existing payment amount would have required the agreement of both DOT and the contractor.

The previous contract with Envirotest included a payment plan that was based on actual testing volume. That plan made adjustments to the per test fee if volume varied by 3.0 percent or more from the base volume estimate. However, the amount of the adjustment was only $0.01 per test, and was thus not likely to affect the contractor's payment in any meaningful way. While some variation in volume may be expected, it is not clear why DOT increased the variation it would accept from 3.0 percent in the previous contract to the level experienced in the current contract.

As DOT prepares to negotiate a five-year contract extension for the period beginning December 1, 2002, it could design a more flexible plan under which payments are related to actual testing volume. Therefore, in its next agreement with the contractor, *we recommend the Department of Transportation negotiate a flexible payment plan based on testing volume*.

Public Information Fee

When the enhanced testing program began in December 1995, the contractor and DOT developed a public information campaign that addressed the benefits of the program, the nature of the tests, vehicle pass/fail criteria, locations and operating hours of testing stations, and information to assist automotive repair technicians. In addition, information on waiting times at individual testing stations was available by telephone, radio broadcast, and signs at the stations. The contractor was paid $15,000 per month for providing public information.

Unspent public information funds may total approximately $311,000 at the end of the current contract.

From December 1995 through May 2001, $990,000 was provided to the contractor for public information costs. A total of $594,411, or 60.0 percent of that amount, was spent, leaving a balance of $395,589. Because of the sizeable balance of unspent funds, DOT and the contractor amended the contract so that the monthly payments ended in May 2001. The unspent funds are to be used to pay public information costs incurred through the current contract period, which ends in November 2002. We note, however, that the contractor spent an average of $56,000 annually on public information efforts over the last four and one-half years. If the annual expenditure rate of $56,000 continues until the conclusion of the contract, unspent public information funds will total approximately $311,000 at the contract's end and will be returned to DOT.

Some public information requirements are not being met.

We noted that some public information program requirements specified in the contract have not been fulfilled satisfactorily. It appears that additional efforts could have been made to improve the availability and accuracy of information provided to the public. For example:

- Each testing station is to have a low-frequency AM radio station providing waiting times and other information to motorists. However, when we checked the radio frequencies at 6 of the 12 testing stations, none were functioning.

- Each testing station operates a recorded telephone message to inform the public of current waiting times. However, we found that these recordings were sometimes unavailable and sometimes provided inaccurate information.

- The contractor was to use various media to inform the public of the existence of the Waukesha South testing station, which was added to the network in December 1995 to alleviate high testing volume at the Waukesha North facility. However, attempts to smooth uneven volume distribution between the two stations have not been successful. For example, in September 2001, the Waukesha North station conducted 2,357 tests per lane, while the Waukesha South station conducted only 629 tests per lane.

Contractor Performance Standards

The contract with Envirotest includes performance standards related to the availability of testing facilities, customer waiting times, and the calibration of testing equipment. DOT has not enforced some of the standards, leading to instances of excessive lane closures and longer waiting times than permitted in the contract. In addition, DOT has not pursued liquidated damages from the contractor for these failures and, as a result, has foregone a maximum of approximately $562,000 in damages that could have been assessed for these violations.

Waiting Times

Although waiting time standards and associated financial penalties are included in the contract, DOT has not aggressively enforced these provisions. We noted:

- a failure to initially develop clear contract language related to the waiting time standards and the manner in which liquidated damages could be assessed;

- a failure to create a written amendment clarifying the agreed-upon interpretation of the waiting time standards;

- a failure to notify the contractor in writing when waiting times exceeded the standards or to provide a written course of corrective action intended to reduce future waiting times;

- a failure to consult with DOT legal counsel regarding the feasibility of pursuing liquidated damages for waiting time violations, given the language in the current contract; and

- the decision not to invoke or attempt to invoke available liquidated damages provisions as incentives for the contractor to improve performance.

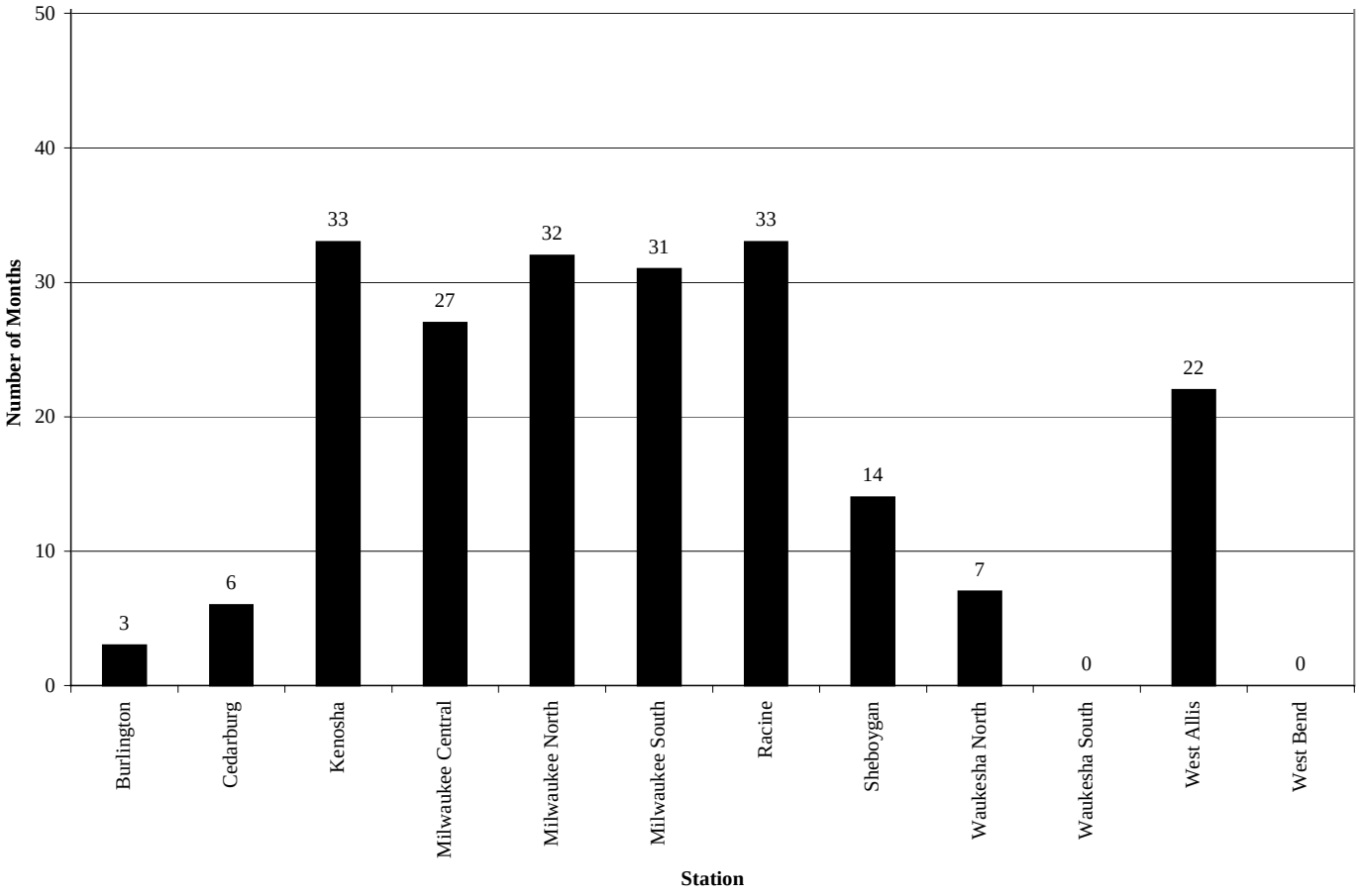
Two waiting time standards are outlined in the contract. The first requires that for 75 percent of a testing station's operating hours per calendar month, vehicle testing will commence within 15 minutes of a vehicle's arrival in the queue lane. The second requires that testing will commence within 60 minutes for 95 percent of operating hours. Although the contract defines the standards in terms of operating hours, neither DOT nor the contractor was sure of how to measure performance under these standards. As a result, both agreed verbally in late 1995 to interpret the standards as a percentage of tests per month. This interpretation is evidenced in the type and frequency of reports submitted to DOT by the contractor and in waiting time discussions between the two entities. However, DOT officials have not taken steps to amend the contract in writing.

Five of the 12 testing stations frequently violated the 15-minute waiting time standard.

We reviewed actual waiting time data and found frequent and widespread noncompliance with the verbal standard for 75 percent of tests per month to begin in 15 minutes or less. The 95 percent standard for tests to begin within 60 minutes has not been violated. However, as shown in Figure 4, five stations—Kenosha, Milwaukee Central, Milwaukee North, Milwaukee South, and Racine—have exceeded the 15-minute standard in 27 or more of the 51 months from October 1997 through December 2001.

Figure 4

Number of Months with Waiting Time Violations
October 1997 through December 2001



Waiting times may be shorter in counties with a higher proportion of newer vehicles because fewer second-chance tests, fewer failures, more fast-pass tests, and fewer re-tests generally occur in newer vehicles. Excessive waiting times could also be caused by high testing volumes at some stations. However, as noted, the average annual testing volume for all stations has consistently been from 14.7 to 18.2 percent lower than originally expected. It should be noted that waiting times have improved since the faster OBD testing procedure began in July 2001. There were only three waiting time violations in 2001 following the implementation of OBD testing: one at the Milwaukee South station, and two at Milwaukee Central.

The contractor reports waiting time statistics to DOT on a monthly basis. DOT is then required by the contract to notify the contractor when actual waiting times exceed contract requirements and to determine what the contractor should do to improve performance. If the contractor does not institute appropriate corrective measures within ten working days of notification, DOT is authorized by the contract to direct the contractor to institute measures that may include the addition of testing lanes, changes to hours of operation, modifications to staffing levels, or the use of a public information program. If waiting times continue to be a problem at an individual station, DOT is authorized to reduce the contractor's payment by $2 per test for those tests exceeding the waiting time limit.

To date, DOT has not exercised its contractual authority to reduce the contractor's payment. DOT officials contend that it was not possible to pursue liquidated damages for three reasons. First, the contract requires that penalties for waiting time violations can only be imposed if the conditions causing the violations were within the control of the contractor. For example, the contractor might contend that waiting time violations were caused by an equipment failure or by unexpected staffing shortages at a testing facility, rather than by foreseeable and controllable conditions.

Second, the contract requires DOT to ensure that monthly testing volumes are within 95.0 percent and 105.0 percent of average annual volume. DOT met that responsibility in only 16 of 48 months from 1998 through 2001. We note, however, that the contract does not explicitly link DOT's responsibility to smooth testing volume to the contractor's responsibility to meet waiting time requirements.

The seasonal nature of vehicle purchasing patterns affects monthly testing volume, which DOT could attempt to smooth by shifting vehicle registration dates so that demand for testing services would be more even. However, DOT officials report that this process can be complicated, costly, and an inconvenience to motorists. Such efforts were last made in 1983 and 1993, before the start of the current contract. Furthermore, when we reviewed waiting time data for months in which fewer than 75 percent of tests began in 15 minutes or less, we found that waiting time violations occurred both in 16 of the 17 months in which testing volume was high and in 13 of the 15 months in which testing volume was low.

Third, DOT officials believe that the contract requirement related to "consistent excessive delays" allows liquidated damages to be imposed only for waiting time violations that occur consistently over several months. However, we note that the contract does not explicitly define "consistent excessive delays" but calls for DOT and the contractor to confer and agree upon appropriate action if waiting times continue to exceed requirements after the first 12 months of the contract. DOT officials did not consult with the Department's legal counsel to determine whether their interpretation of this language was correct, nor did they attempt to invoke financial penalties as a means of improving contractor performance after the first 12 months of operation.

DOT has not penalized the contractor for repeated violations of waiting time performance standards.

Given the language in the current contract, it is difficult to determine the specific amount of liquidated damages that could have been recovered from the contractor for waiting time violations. As shown in Table 12, if the $2 per test penalty for excessive waiting times had been invoked for all months from October 1997 through December 2001 in which 25 percent or more tests required a waiting time of more than 15 minutes, the total damages would have been approximately $363,000. It should be noted, however, that the contractor's performance might have improved if damages had been imposed early in the contract period, and thus total penalty amounts might have been smaller.

Table 12

Waiting Time Violations
October 1997 through December 2001

Station	Tests Above the 25 Percent Limit	Total Damages ($2 per Test)
Burlington	245	$ 490
Cedarburg	1,246	2,492
Kenosha	17,864	35,728
Milwaukee Central	25,077	50,154
Milwaukee North	31,534	63,068
Milwaukee South	45,030	90,060
Racine	16,396	32,792
Sheboygan	5,110	10,220
Waukesha North	4,275	8,550
Waukesha South	0	0
West Allis	34,595	69,190
West Bend	0	0
Total	181,372	$362,744

Instead of pursuing liquidated damages, DOT officials have chosen to work with the contractor informally, without written documentation, to meet contractual obligations. However, these informal means of addressing contract violations have not resulted in improved performance and have not provided the contractor with a financial incentive to reduce waiting time violations. As a result, motorists at many testing stations have likely waited longer than necessary for their cars to be tested. To enable DOT and the contractor to ensure public convenience and to address contractual violations as they arise, *we recommend the Department of Transportation:*

- *immediately pursue an amendment to the current contract clarifying waiting time parameters;*
- *pursue liquidated damages for waiting time violations that occurred during the current contract; and*
- *include clear waiting time parameters in the next contract.*

Lane Closures

One of the six testing lanes at the Milwaukee North station has not been used despite repeated waiting time violations.

The contractor is required to operate a specified number of lanes at each station, based on expected testing volume in that area. However, at the Milwaukee North station, one of the six required lanes is not a part of the core testing facility. Instead, it is attached to the technical assistance center. The Milwaukee North testing station has consistently violated waiting time standards over the past four years. However, lane usage data indicate that the lane attached to the technical assistance center has not been used for routine vehicle testing, as intended in the contract. From October 1997 through December 2001, the sixth lane was not used at all during 23 of the 32 months in which waiting time violations occurred at that station.

The contract requires that lane closures are not to exceed 24 hours for any single event or 24 hours in any given week. If the reasons for unscheduled closures are within the control of the contractor, DOT may penalize the contractor $60 per inspection lane per hour. At the Milwaukee North station, the circumstances surrounding the use of the sixth testing lane appear to have been within the contractor's control. For those months in which the lane attached to the center was not in operation, the potential damages total approximately $199,000. DOT officials have chosen not to penalize the contractor for any lane closure violations and have not addressed this issue in writing with the contractor. By not operating all of the contract-specified lanes at the

Milwaukee North station, the contractor is in violation of its agreement with DOT. Therefore, *we recommend the Department of Transportation pursue liquidated damages from the contractor for failure to operate all testing lanes specified in the contract and negotiate an automatic payment reduction clause (for example, a reduction of the next month's payment following a lane closure violation) in the next contract.*

Customer Complaints

At eight of the nine stations we visited, complaint procedure information was not clearly posted.

The contractor is required to provide complaint procedure information in each testing lane and to have complaint forms available at each station. However, at eight of the nine stations we visited, information regarding the complaint procedure was not posted. Instead, station managers indicated that customers have the option to speak to a manager about concerns at any time. Although these discussions can be beneficial, this procedure places a burden on the customer to seek out a manager, and it allows some managerial discretion about when a written complaint is necessary.

According to officials of DOT and the contractor, managers usually fill out complaint forms when a vehicle is physically damaged during the testing process, but very few complaints of other types are recorded. The number and types of complaints recorded in 2000 and 2001 are shown in Table 13. The relatively small number of waiting time complaints may indicate inadequate complaint procedures or a lack of public awareness regarding waiting time standards, rather than a lack of concern among motorists.

Table 13

Customer Complaints
2000 and 2001

Complaint Type	2000	2001
Alleged or substantiated damage to vehicle	148	151
Customer service	18	19
Miscellaneous	14	11
Waiting time	3	4
Total	183	185

Vehicle owners are reimbursed when damage complaints are substantiated, and the contractor has the authority to handle these and other claims internally. In 2001, damage payments totaled $24,621. Complaints and damage claims are summarized in a monthly report sent to DOT, but DOT managers are not provided with actual written customer complaints.

To ensure that it is aware of vehicle owners' and other motorists' concerns, *we recommend the Department of Transportation:*

- *ensure that complaint procedure information is posted in all testing lanes, as required by the contract; and*

- *establish a means for customers to communicate complaints and concerns about the vehicle emissions testing process without being required to interact with contractor employees.*

One means of ensuring that DOT receives information regarding customer concerns and complaints would be to provide postage-paid comment cards addressed directly to DOT at the testing stations. Unspent public information funds could be used to fund both printing and postage costs.

Department of Revenue Audit

During our fieldwork, we noted that s. 110.20(8)(e), Wis. Stats., requires the Department of Revenue to audit the records of the vehicle emissions testing contractor annually and to publish the results of the audit in the official state newspaper. However, we found that this audit requirement has never been put into effect, and both Revenue and DOT officials were unaware of it.

The audit requirement was originally included as part of Chapter 274, Laws of 1979. At that time, planning for the emissions testing program anticipated that motorists would pay a fee for testing. However, when the testing program began in 1984, state and federal funds replaced motorist fees as the funding source, which essentially eliminated the need for the audit requirement; therefore, *we recommend the Legislature repeal the statutory requirement that the Department of Revenue audit the records of the vehicle emissions testing contractor.*

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Some legislators and others have questioned whether Wisconsin's vehicle emissions testing program is more stringent than necessary to achieve federally mandated air quality standards. If air quality improvement goals are met and Wisconsin is redesignated to attainment/maintenance status in 2002, the Legislature could consider making additional changes to the program.

As noted, the Legislature has already made some modifications to the program, such as exempting farm trucks from testing requirements. In the future, the Legislature could consider other modifications to the program parameters that are listed in Appendix 2, such as exempting additional model years from testing or changing the emissions thresholds required to pass the test. These types of changes may be approved by the EPA as long as Wisconsin can demonstrate that the changes would have no significant effect on emissions levels. Possible program changes would also need to consider the possibility of federal sanctions, such as delays in federal highway funding, if Wisconsin were to fall below air quality standards.

Potential Program Adjustments

All states, including Wisconsin, are able to evaluate the air quality effects of possible changes to their emissions testing programs using a model developed by the EPA. However, EPA and DNR officials note that the model does not adequately account for the better-than-expected emissions performance of newer vehicles, which are generating less pollution and have more durable emissions control equipment than anticipated at the time the model was developed. Early in 2002, the EPA released an updated and improved version of the mobile source emissions model, which DNR plans to use to evaluate future program changes.

Other changes to Wisconsin's current program, such as eliminating or reducing reformulated gasoline requirements, exempting individual counties from vehicle emissions testing requirements, or lowering the cost waiver limit, are more substantive and would require changes to federal law. The Legislature, however, could direct DNR to provide information on these possible adjustments using the updated mobile source emissions model.

Additional Model Year Exemptions

Exempting additional model years from testing could result in program savings.

Currently, Wisconsin exempts the two newest model years from vehicle emissions testing. As shown in Table 14, test data indicate if the model year exemption had been increased in 2001 to include the three newest model years, 102,824 fewer tests—or 13.1 percent of the 783,653 tests conducted in 2001—would have been required. Actual test data show only 662 failed tests would have been missed by the additional exemption. Increasing the exemption to four model years would have resulted in a total of 108,563 fewer tests being conducted and 704 failed tests being missed. The exemption of a fifth model year would have resulted in 194,078 fewer tests being conducted but would have resulted in 2,118 missed failures. Although it is difficult to determine the degree of cost savings the State might achieve by increasing the model year exemption, motorists would save time and money on vehicle repairs if testing requirements were reduced. However, motorists do benefit from emissions repairs because vehicles' fuel economy typically improves, and repairs can prevent costly engine damage in some cases.
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Table 14

Effects of Further Model Year Exemptions
Based on 2001 test data

Number of Exempted Model Years	Avoided Tests	Number of Failures Missed*
3 Years (2000-2002 models)	102,824	662
4 Years (1999-2002 models)	108,563	704
5 Years (1998-2002 models)	194,078	2,118

* Estimated based on test failures from July through December 2001, after nitrogen oxide testing was implemented.

As shown in Table 15, the majority of the other states with severe ozone nonattainment designations test a smaller group of vehicles, including fewer newer model years, and several of the states exempt the four newest model years. Because these states have the same ozone designation as Wisconsin, it appears possible that Wisconsin could reduce the number of model years tested while still meeting emissions reduction goals.

Table 15

Testing Programs in States with Severe Ozone Nonattainment Designations
2001

State	Testing Frequency	Age of Vehicles Subject to Testing	Model Year Exemptions
Wisconsin	Biennial	1968 and newer	New vehicles in the calendar year that matches their model year
California	Biennial	1974 and newer	Vehicles up to four years old
Connecticut	Biennial for 1981 and newer vehicles; annual for pre-1981 vehicles	25 most recent model years	New vehicles for 12 months from date of initial registration*
Delaware	Biennial	1968 and newer cars, and 1970 and newer trucks	Five newest model years
Illinois	Biennial	1968 and newer	Four newest model years
Indiana	Biennial	1976 and newer	Four newest model years
Maryland	Biennial	1977 and newer	First two years after vehicle's initial titling
New Jersey	Biennial	No age limit	First 24 months of ownership
New York	Annual	Rolling 25-year testing period	Vehicles less than two years old
Pennsylvania	Annual	1975 and newer	Current model year
Texas	Annual	Rolling 24-year testing period	Two newest model years

* Connecticut will begin exempting the four newest model years of vehicles in October 2002.

Moreover, the EPA suggests that states consider exempting vehicles from testing until they are at least four years old because focusing on older vehicles, which are more likely to be high emitters, allows for more cost-effective testing. Our discussions with EPA officials indicate that if Wisconsin chose to test fewer model years, it could likely compensate for any loss of emissions reductions with minor adjustments to the testing program. We note, however, that DNR is not currently planning to exempt additional model years. DNR officials have given three reasons for not doing so.

First, DNR officials are concerned that requiring only older model vehicles to be tested would be inequitable because it may result in malfunctioning vehicles being passed on to subsequent buyers, who would face higher repair costs for multiple repairs over time. However, we note that inequalities in Wisconsin's program already exist because of current exemptions from testing, such as those for the two newest model years and for farm trucks.

Federal law requires a comprehensive two-year/24,000-mile manufacturer's warranty on emissions-related components.

Second, DNR officials have expressed concern that extending the new model year exemption could delay detection of emissions control malfunctions until warranty coverage has expired. However, federal law requires automobile manufacturers to cover vehicle emission repairs on vehicles located in ozone nonattainment areas, and expansion of the new model year exemption would not negate this coverage. Federal law requires a two-year/24,000-mile warranty period, under which the manufacturer must take whatever steps are necessary to repair a vehicle so that it meets emissions standards. Federal law also mandates an eight-year/80,000-mile warranty on a vehicle's catalytic converter, OBD computer, and emission control computer. In addition, the OBD technology in vehicles for model year 1996 forward would alert vehicle owners to the need for repairs during the years vehicles were exempt from testing. Furthermore, for a $10 fee, a motorist may have a vehicle tested at any time, which provides a means of detecting problems during the period the more comprehensive two-year/24,000-mile warranty is in effect.

Finally, DNR officials have expressed concern that if Wisconsin is re-designated to attainment/maintenance status, some federally required emission control measures on stationary sources will no longer be in effect. DNR officials fear this could lead to a growth in stationary source emissions and, therefore, believe it will be important to continue to limit mobile source emissions. It is not yet known what additional emissions could be generated by stationary sources after redesignation, but some limited information is available from other states' experiences. EPA officials report that when Grand Rapids and Detroit, Michigan, were redesignated to attainment/maintenance status, neither area saw a significant increase in stationary source emissions.

Increasing Emissions Thresholds

Another means of modifying the vehicle emissions testing program would be to increase allowable emissions thresholds. Such a change would reduce the number of failing vehicles, and thus reduce the number of required repairs. The increase in emissions thresholds, however, could also result in an increase in emissions measured by the mobile source model, requiring Wisconsin to demonstrate through the model developed by the EPA that emissions reduction goals could still be met.

Reformulated Gasoline

Federal law requires reformulated gasoline to be sold in southeastern Wisconsin.

The 1990 Clean Air Act amendments require the sale of reformulated gasoline in nine major metropolitan areas with the most severe ozone pollution and with populations of over 250,000, which includes Milwaukee and five other counties in southeastern Wisconsin. In addition to the nine areas required to sell reformulated gasoline, portions of 12 states and the District of Columbia have also chosen to require its sale as a means of reducing pollution levels. Three other states initially opted to require the sale of reformulated gasoline but have since discontinued this requirement and instead plan to achieve federal air quality improvements through other means.

During the summer of 2000, gasoline prices in southeastern Wisconsin rose dramatically, prompting a group of legislators from that area to petition the EPA in federal court to remove the reformulated gasoline requirement. The EPA subsequently announced changes in some reformulated gasoline requirements, and the petition was withdrawn later in 2000. In the summer of 2001, gasoline prices again rose dramatically following an Illinois refinery fire that reduced reformulated gasoline production. In response, the EPA granted a waiver allowing the sale of the winter blend of reformulated gasoline to begin in late August, rather than on September 15. At that time, some legislators increased their efforts to convince the federal government to relax reformulated gasoline requirements permanently in order to prevent future price increases.

The EPA is reportedly considering relaxing reformulated gasoline requirements, which could include additional flexibility in the dates during which summer and winter blends of the gasoline must be sold. Some members of Wisconsin's congressional delegation are also exploring options related to the reformulated gasoline requirement in an effort to reduce gasoline prices and price fluctuations in southeastern Wisconsin. For example, some believe reducing the number of blends of gasoline in production may help to maintain stable production levels and prices.

Ending the sale of reformulated gasoline would require a change in federal law.

Although the EPA has the authority to make some modifications to reformulated gasoline regulations, the agency does not have the authority to remove the reformulated gasoline requirement entirely for the southeastern Wisconsin area because the Clean Air Act amendments, rather than EPA regulations, specify the criteria for areas required to use reformulated gasoline. A change in federal law would be required to remove the reformulated gasoline requirement for southeastern Wisconsin.

Exempting Individual Counties

The Legislature could consider the possibility of exempting individual counties from some or all vehicle emissions testing requirements. As noted, current federal law requires that all counties in a metropolitan statistical area be included in an ozone nonattainment area designation, regardless of their individual air quality readings. The Milwaukee metropolitan statistical area includes the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha; therefore, exempting any of these counties entirely would require a change in federal law. Sheboygan County is not part of the metropolitan statistical area, but exempting Sheboygan County from all vehicle emissions testing would also require a change in federal law because Wisconsin's current maintenance plan requires the operation of at least a basic testing program there.

Decreasing the Cost Waiver Limit

Another means of reducing the financial burden on motorists would be to lower the limit at which a cost waiver is available. This would permit motorists to spend less on repairs before qualifying from a waiver from meeting emissions standards. As with increasing the emissions thresholds, this could result in a loss of emissions reductions because an increased number of vehicles would not be repaired as completely as possible. Because the cost waiver amount is specified in the Clean Air Act itself, reducing this threshold would require congressional action.

Redesignation to Attainment/Maintenance Status

Air quality in the six counties designated as severe ozone nonattainment areas has improved enough to allow DNR to request that the EPA redesignate those counties attainment/maintenance areas. In 2002, DNR officials plan to submit a redesignation request to EPA, and they expect to have it approved later this year.

If Wisconsin reaches attainment/maintenance status in 2002, it will do so five years earlier than the federally required deadline of November 2007. DNR officials indicated that they chose an aggressive approach to improving Wisconsin's air quality for the following reasons:

- federal highway funding could have been delayed if Wisconsin failed to meet federal deadlines for air quality improvement;

- air quality is affected, in part, by uncontrollable factors such as weather and wind, and more aggressive efforts could offset possible increases in ozone levels from sources that could not be controlled; and

- the elimination of some stationary source control measures may allow increased economic growth in the six-county area.

Nonattainment status could be resumed if federal ozone standards were exceeded more than three times in three years.

Although the redesignation will indicate that the air quality in southeastern Wisconsin meets current federal standards, it is important to note that emissions requirements related to vehicles, as well as most current requirements for stationary sources, are likely to remain. Federal law requires that maintenance plans include continuation of programs that permitted a state to reach attainment/maintenance status; otherwise, air quality might worsen again. A redesignated area that exceeds the federal ozone standard more than three times in a three-year period will be required to reinstitute all pollution-control measures in place while it was in nonattainment status.

DNR officials note that the highest ozone measurements taken in the nonattainment area during the summer of 2001 were 124 parts per billion, which is just below the federal threshold of 125 parts per billion. That indicates Wisconsin reached attainment with little margin of error. Three other states that anticipate redesignation of their severe ozone nonattainment areas in the near future—Illinois, Indiana, and Maryland—anticipate continuing their vehicle emissions testing programs once that status is reached. However, officials in other states have indicated that they may consider modifying the frequency of testing or the vehicle age at which testing begins.

The Proposed Eight-Hour Ozone Measurement Standard

A more stringent eight-hour standard for measuring ozone concentrations may soon take effect.

The EPA has proposed a more stringent ozone measurement standard, known as the eight-hour standard, to account for the human health effects of exposure to ozone over longer periods, such as those experienced by persons working outdoors. The new standard will measure eight-hour average ozone levels and has a lower threshold of failure, 85 parts per billion, compared to 125 parts per billion for the current one-hour standard.

However, the EPA's authority to implement the new standard was challenged in federal court by several private companies and the states of Michigan, Ohio, and West Virginia. In February 2001, the U.S. Supreme Court held that the EPA had the authority to establish a new standard but directed the EPA to develop a reasonable interpretation of the eight-hour standard that can be integrated with established vehicle testing programs and other emission control measures.

Additional counties could be designated as nonattainment areas under the eight-hour standard.

Implementation of the new standard may restrict the Legislature's flexibility to change Wisconsin's vehicle emissions testing program, either because the EPA may designate additional counties as nonattainment areas or because counties currently in attainment/maintenance status may fall back into nonattainment status. DNR officials expect the eight-hour standard to take effect during 2002 or 2003, and they believe it may result in 12 counties—Door, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Rock, Sheboygan, Washington, and Waukesha—being designated as nonattainment areas.

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Appendix 1

Vehicle Emissions Testing Time Line

April 1984	As required by the federal Clean Air Act, Wisconsin begins a vehicle emissions testing program in six southeastern counties (Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha).
November 1990	The federal Clean Air Act is amended to require more aggressive vehicle emissions testing.
November 1991	The EPA designates Wisconsin ozone nonattainment areas under the new federal air quality standards.
July 1993	Vehicle emissions testing begins in Sheboygan County.
April 1994	1993 Wisconsin Act 288 exempts vehicles with weight ratings of more than 14,000 pounds from emissions testing requirements, effective July 1995.
December 1995	As a result of the EPA designations, Wisconsin begins a uniform low-enhanced vehicle emissions testing program in seven ozone nonattainment counties (Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha) because of the severity of their ozone levels.
February 1996	1995 Wisconsin Act 137 exempts trucks with farm license plates from vehicle emissions testing.
August 1996	The EPA redesignates Kewaunee, Sheboygan, and Walworth counties to attainment/maintenance status.
July 1997	1997 Wisconsin Act 27 lowers the vehicle weight rating exemption to 10,000 pounds.
May 2001	Wisconsin begins testing vehicles for nitrogen oxide emissions.
July 2001	Wisconsin begins using the onboard diagnostic (OBD) testing method for vehicles from model year 1996 forward.

Appendix 2

Federal EPA Model Parameters for Basic, Low-Enhanced, and High-Enhanced Programs

Parameter	Basic	Low-Enhanced	High-Enhanced
VEHICLE TYPE	Light-duty cars	Light-duty cars, and trucks up to 8,500 pounds GVWR[1]	Light-duty cars, and trucks up to 8,500 pounds GVWR
MODEL YEAR	1968 and later	1968 and later	1968 and later
SPECIAL EXEMPTIONS	None	None	None
FREQUENCY	Annual	Annual	Annual
TYPE OF EXHAUST TEST	Idle test	Idle/Steady state test	I/M240 for 1986 and newer; two-speed idle for 1981-85; and idle for 1968-80
PRESSURE TEST	None	None	For 1983 and newer
PURGE TEST	None	None	1986 and newer
VISUAL CHECK	None	Yes	Yes
ONBOARD DIAGNOSTIC	1996 and newer	1996 and newer	1996 and newer
EMISSION STANDARDS	220 ppm[2] of HC[3] and 1.2% of CO[4] For pre-1981: set limits so that 20% of vehicles fail	For 1981 and newer: allow 220 ppm of HC and 1.2% CO For pre-1981: set limits so that 20% of vehicles fail	For I/M 240: allow 0.8 gpm[5] of HC, 20 gpm of CO, and 2.0 gpm of NOx[6] For idle: allow 220 ppm of HC, 1.2% of CO For pre-1981: set limits so that 20% fail
WAIVER RATE	0%, no waivers	3% of total failures can be waived	3% of total failures can be waived
COMPLIANCE RATE	100%	96%	96%
NETWORK TYPE	Centralized	Centralized	Centralized
START DATES	1983 for existing programs; 1984 for new programs	1983 for exhaust; 2002 for OBD	1983 for exhaust and evaporation; 2002 for OBD
REMOTE SENSING OF VEHICLE EMISSIONS	None	At least 0.5% of vehicles subject to emissions testing must undergo on-road testing	At least 0.5% of vehicles subject to emissions testing must undergo on-road testing

[1] GVWR: gross vehicle weight rating (the vehicle's weight when fully loaded with cargo and passengers)
[2] ppm: parts per million
[3] HC: hydrocarbon
[4] CO: carbon monoxide
[5] gpm: grams per mile
[6] NOx: nitrogen oxide

Appendix 3

Comparison of the Program in Sheboygan County to the Required Federal Model

Parameter	Basic Federal Model	Wisconsin's Program in Sheboygan County	Effect
VEHICLE TYPE	Light-duty cars	Light-duty cars, trucks with a GVWR[1] up to 8,500 pounds, and heavy-duty trucks with a GVWR up to 10,000 pounds	More stringent than federal model, but Wisconsin earns greater emission reductions credits
MODEL YEAR	1968 and later	1968 through 3rd newest model year	Less stringent
SPECIAL EXEMPTIONS	None	No more than 2 percent	Less stringent
FREQUENCY	Annual	Biennial	Less stringent
TYPE OF EXHAUST TEST	Idle test	I/M240 for 1968-95; OBD for 1996 and newer	More stringent than federal model, but Wisconsin earns greater emission reductions credits
PRESSURE TEST	None	Gas cap check for 1971 and newer	More stringent than federal model, but Wisconsin earns greater emission reductions credits
PURGE TEST	None	None	No difference
VISUAL CHECK	None	No, information captured with I/M240	No difference
ONBOARD DIAGNOSTIC	1996 and newer model years	1996 and newer model years	No difference
EMISSION STANDARDS	220 ppm[2] of HC[3] and 1.2% of CO[4] For pre-1981: set limits so that 20% of vehicles fail	For 1987 and newer: 0.80 gpm[5] for HC; 20 gpm of CO; 2.0 gpm of NOx[6] 1981-86: 1.2 gpm of HC; 20 gpm of CO; 3.0 gpm of NOx For pre-1981: Limits result in failure rate of approximately 35%	More stringent than federal model, but Wisconsin earns greater emissions reduction credits
WAIVER RATE	0%, no waivers	No more than 3% for total failures	Less stringent
COMPLIANCE RATE	100%	96%	Less stringent
NETWORK TYPE	Centralized	Centralized	No difference
START DATES	1983 for existing programs; 1984 for new programs	1984 for exhaust; 1996 for evaporation; mid-2001 for OBD	More stringent than federal model, but Wisconsin earns greater emission reductions credits
REMOTE SENSING OF VEHICLE EMISSIONS	None	None	No difference

[1] GVWR: gross vehicle weight rating (the vehicle's weight when fully loaded with cargo and passengers)
[2] ppm: parts per million
[3] HC: hydrocarbon
[4] CO: carbon monoxide
[5] gpm: grams per mile
[6] NOx: nitrogen oxide

Appendix 4

Wisconsin's Program Compared to the Federal Low-Enhanced Model

Parameter	Federal Low-Enhanced Model	Wisconsin's Program	Effect
VEHICLE TYPE	Light duty cars, and trucks up to 8,500 pounds GVWR	Light-duty cars, trucks with a GVWR[1] up to 8,500 pounds, and heavy-duty trucks with a GVWR up to 10,000 pounds	More stringent than federal model, but Wisconsin earns greater emission reductions credits
MODEL YEAR	1968 and later	1968 through 3rd newest model year	Less stringent
SPECIAL EXEMPTIONS	None	No more than 2 percent	Less stringent
FREQUENCY	Annual	Biennial	Less stringent
TYPE OF EXHAUST TEST	Idle/Steady state test	I/M240 for 1968-95; OBD for 1996 and newer	More stringent than federal model, but Wisconsin earns greater emission reductions credits
PRESSURE TEST	None	Gas cap check for 1971 and newer	More stringent than federal model, but Wisconsin earns greater emission reductions credits
PURGE TEST	None	None	No difference
VISUAL CHECK	Yes	No, information captured with I/M240	No difference
ONBOARD DIAGNOSTIC	1996 and newer model years	1996 and newer model years	No difference
EMISSION STANDARDS	For 1981 and newer: allow 220 ppm[2] of HC[3]; 1.2 percent CO[4] For pre-1981: set limits so that 20% of vehicles fail	For 1987 and newer: 0.80 gpm[5] for HC; 20 gpm of CO; 2.0 gpm of NOx[6] 1981-86: 1.2 gpm of HC; 20 gpm of CO; 3.0 gpm of NOx For pre-1981: limits result in failure rate of approximately 35%	More stringent than federal model, but Wisconsin earns greater emission reductions credits
WAIVER RATE	3% of total failures can be waived	No more than 3% for total failures	No difference
COMPLIANCE RATE	96%	96%	No difference
NETWORK TYPE	Centralized	Centralized	No difference
START DATES	1983 for exhaust; 2002 for OBD	1984 for exhaust; 1996 for evaporation; mid-2001 for OBD	More stringent than federal model, but Wisconsin earns greater emission reductions credits
REMOTE SENSING OF VEHICLE EMISSIONS	At least 0.5% of vehicles subject to emissions testing must undergo on-road testing	None	Less stringent

[1] GVWR: gross vehicle weight rating (the vehicle's weight when fully loaded with cargo and passengers)
[2] ppm: parts per million
[3] HC: hydrocarbon
[4] CO: carbon monoxide
[5] gpm: grams per mile
[6] NOx: nitrogen oxide

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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March 1, 2002

Janice Mueller, State Auditor
Legislative Audit Bureau
22 E. Mifflin St., Suite 500
Madison, WI 53703

Subject: Evaluation of Motor Vehicle Inspection and Maintenance Program

Dear Ms Mueller:

Thank you for the opportunity to participate in the Evaluation of the State's motor vehicle inspection maintenance program. I compliment you and your staff on the quality of the report and the professional manner in which the evaluation was conducted.

We have no major concerns with the report recommendations or the accuracy of the information contained in the document. We agree with the report recommendation that the DNR should reevaluate the benefits of the program now that the US Environmental Protection Agency (EPA) has just released the Mobile 6 emissions model. When EPA provides guidance for using Mobile 6 to evaluate the inspection maintenance programs, we will work with DOT to conduct the analysis. Specifically, we will examine the emission reduction potential of program options; program costs; and program benefits such as benefits to vehicle owners, air quality benefits and regulatory benefits. We will solicit advice on the report from stakeholders through the Clean Air Act Task Force and from other state agencies through the Interagency Task Force on Clean Air. We will likely complete the report within six months after EPA provides the appropriate guidance.

Thank you again for the opportunity to participate in the audit of the State's vehicle inspection and maintenance program.

Sincerely,

Darrell Bazzell

Darrell Bazzell
Secretary

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March 1, 2002

Janice Mueller, State Auditor
Wisconsin Legislative Audit Bureau
22 East Mifflin Street, Ste. 500
Madison, WI 53703

Dear Ms. Mueller:

Thank you for the opportunity to review and respond to the Legislative Audit Bureau's (LAB) evaluation of how we administer the contract with the private firm that operates vehicle testing stations in southeast Wisconsin. I appreciate the professionalism of your staff and their willingness to spend time on this complex subject.

Emissions testing is performed on almost 800,000 vehicles annually. We work with the vendor and the Wisconsin Department of Natural Resources to provide an effective program. We are proud of what we have accomplished:

- Wisconsin will meet federal ambient air quality standards five years before the deadline.
- Our program per-test cost is currently not only the lowest in the country, but also is $7.50 (38%) less than the next lowest program.
- Our administrative costs have decreased significantly over the years.
- The Wisconsin Vehicle Inspection Program enjoys a high degree of public acceptance.
- Our program is often cited nationally as a model for other states.

These are significant accomplishments. I am proud of the department's role in improving air quality in Wisconsin, the Division of Motor Vehicles staff that administers the contract, and the strong working relationships we have developed with our stakeholders.

In general, the department accepts your recommendations and has already implemented several of them. We have sent a draft memorandum of understanding (MOU) to our contractor to clarify wait time parameters, and we will include that language in the next contract. We are also pursuing liquidated damages for the contractor's failure to operate all available lanes during high volume periods. However, we take exception with two items in the report:

- The department's decision to not renegotiate a contract due to lower than expected test volume was correct and a sound business decision. We were already obtaining the vehicle inspection service at the lowest per-test cost in the nation. Since only two vendors had submitted bids in response to our request for proposal, we would not be renegotiating from a strong position. It is highly unlikely that any renegotiation would have been successful in reducing the department's costs and may, in fact, have resulted in increased costs.

- Your recommendation that the department should pursue liquidated damages for past wait time exceedences is not appropriate according to the terms of the contract. The contract defines "excessive wait times" and carefully describes the steps that should be taken to address this issue. Simply totaling the number of months in which wait times were high and suggesting that liquidated damages should be assessed for each occurrence ignores the improvement process written in the contract. Based on our interpretation, and that of our legal office, the conditions specified in the contract as necessary for the department to assess such damages did not exist. We take wait time seriously and have worked vigorously with the contractor to improve wait times. The reduction in wait times in the last three years is evidence of our successful approach to this problem.

As you know, our emissions testing contract will be up for renewal later this year. Your audit recommendations to improve the program are very timely. They will be considered as we negotiate a five-year extension with our vendor. Following are some additional and more detailed comments responding to your findings and recommendations.

Sincerely,

Gene E. Kussart
Secretary

LAB Recommendation
"We recommend that the Department of Transportation negotiate a flexible payment plan based on test volume in its next agreement with the contractor."

WisDOT Response

The department agrees to examine various payment options in its next agreement with the contractor and negotiate payment terms that best meet the needs of both parties.

It is the department's obligation to obtain contract services in the most cost effective manner possible. Wisconsin negotiated the lowest per-test fee of any other state in the country. We will approach negotiations for an extension with the same concern for obtaining the best price possible for the services required.

One of the findings criticizes the department for not renegotiating a contract payment when the actual number of tests performed was lower than the contract estimate. We disagree with the implication that the department chose to overlook this option. We considered it and made an informed decision based on the following factors:

- The administrative costs associated could have resulted in a higher program cost to the department.
- The Wisconsin per-test fee was, and is, the lowest in the nation for this type of emission test. It is $7.50 (38%) less than the next lowest state.
- Information from other states negotiating contracts for similar types of programs after the 1995 start of Wisconsin's enhanced testing indicated that contractors were negotiating significantly higher payments. Prices ranged from $17 to $24.75. That is 170% - 240% over the Wisconsin negotiated price.
- The national climate of vehicle inspection programs at the time was volatile, and any reopening of the contract was viewed to be potentially disruptive to a successful, fully operational program.
- Volumes at the time were uncertain and could have increased, not decreased.
- Because of contractor fixed costs, renegotiating a payment based on a test volume roughly 15% less than estimated would *not* mean a proportionate reduction in the per-test fee.

LAB Recommendation

"We recommend the Department of Transportation:

- ***Immediately pursue an amendment to the current contract clarifying wait time parameters;***
- ***Pursue liquidated damages for wait time violations occurring during the current contract; and***
- ***Include clear wait time parameters in the next contract."***

WisDOT Response

The department agrees to immediately develop a memorandum of understanding (MOU) to clarify the wait time parameters. (As of this writing, the department has submitted a draft MOU to the contractor for their review.)

The department agrees to include clear wait time parameters in the next contract.

The department feels that pursuing liquidated damages for past wait time exceedences is not appropriate given the current contract language.

The department will include in the MOU mentioned above a commitment to document instances of wait time exceedences, require written contractor response detailing corrective actions to be taken, and state the department's intention to assess penalties where appropriate.

In the department's view, drawing a conclusion that the contractor should be penalized based simply on the fact that wait time problems have occurred, ignores the current contract language, the complexity of the causes, and the efforts taken to improve wait times.

Appendix G – Damages/Penalties – of the current contract clearly defines "consistent excessive delays." It also describes the steps involved in the wait time/penalty process:

1. Determine that the cause of consistent excessive delays is under the control of the contractor.
2. The contractor considers and implements measures to eliminate consistent excessive delays.
3. Department notification follows a contractor failure to implement corrective measures.
4. Penalty situation occurs if the contractor fails to implement corrective action within 10 days of department notice.

As the audit report states, several factors can affect wait time at individual stations. Not all causes are within the contractor's control.

- Failure to mail license plate renewal notices on schedule can effectively reduce the number of testing days available to accomplish the monthly workload. Such delays have occurred in some months and do not lie within the realm of contractor control.
- Department ordered changes to the testing procedures that result in increased test time impact wait times. A change to the "second-chance" test criteria increased the number of vehicles receiving second-chance tests. This change reduced lane throughput at certain test stations more than others. The contractor is not allowed to change the criteria, so wait times resulting from increased second-chance testing are not subject to contractor remedy.

Fluctuations in monthly test volume can adversely affect the contractor's ability to employ and retain a sufficient number of lane inspectors to perform the anticipated work. Section D.25 of the contract requires the department to distribute registrations evenly over a year. There is a relationship between this requirement and the customer convenience issue. However, the department has been unable to meet this requirement and, therefore, holds some liability for excessive wait times that occur in months where the number of registrations varies outside of the tolerance specified in section D.25. (The department has made two attempts to level the monthly registration volume. Those attempts resulted in only a short-term solution and also met with negative reaction from the affected motorists.) <u>The department intends to revise section D.25 in the contract extension to include a method for providing the contractor with a timely and more accurate estimate of anticipated monthly test volume.</u>

We are very concerned about wait times for the public. We have worked with the contractor to reduce wait times at all stations. Overall, we have been successful. The following chart shows the wait time reduction over the past 3 years.

Year	Racine	Kenosha	Milwaukee South	Milwaukee North	Milwaukee Central	Network
1999	14.79	15.38	17.79	15.95	12.62	**13.50**
2000	11.88	12.32	13.33	11.33	10.20	**9.85**
2001	9.86	9.90	11.62	10.44	*13.06	**9.36**

* The wait time at Milwaukee Central reflects the impact of "second chance" testing at this particular station.

LAB Recommendation

"We recommend the Department of Transportation pursue liquidated damages from the contractor for failure to operate all testing lanes specified in the contract, and negotiate an automatic payment reduction clause (for example, a reduction of the next month's payment following a lane closure violation) in the next contract."

WisDOT Response

The department agrees to pursue liquidated damages for the contractor's failure to operate lane six at the Milwaukee North test station during months that the station exceeded the wait time standard. Additionally, the department will notify the contractor that they will penalize the contractor $60 for each operational hour, over and above the 24 hours allowed, that any lane is not operated during months with excessive wait times.

The department will include an automatic payment reduction clause in the next contract.

LAB Recommendation

"We recommend the Department of Transportation:

- ***Ensure the complaint procedure information is posted in all testing lanes as required by contract; and***

- ***Establish a means of communication for motorists to use in expressing complaints and concerns about the vehicle emissions testing process that does not require interaction with contractor employees."***

WisDOT Response

The department agrees to make sure that complaint information is posted in all test lanes.

The department agrees with the suggestion to provide postage-paid comment cards, addressed directly to the Department of Transportation in all test lanes.