

An Evaluation

Air Management Programs

Department of Natural Resources

2003-2004 Joint Legislative Audit Committee Members

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From the Department of Natural Resources	



February 26, 2004

Senator Carol A. Roessler and
Representative Suzanne Jeskewitz, Co-chairpersons
Joint Legislative Audit Committee
State Capitol
Madison, Wisconsin 53702

Dear Senator Roessler and Representative Jeskewitz:

We have completed an evaluation of the Department of Natural Resources' (DNR's) air management programs, as requested by the Joint Legislative Audit Committee. DNR administers two separate permitting programs for controlling air pollution at 2,219 stationary facilities in Wisconsin: the operation permit program and the construction permit program. In fiscal year 2002-03, expenditures for all air management programs—including permitting, monitoring, vehicle emissions, and enforcement—totaled \$17.9 million, including \$13.3 million in salaries and fringe benefits for 184.0 full-time equivalent employees.

As of June 30, 2003, DNR had issued operation permits to just over half of the facilities required to obtain them. Although 1,128 permits have been issued since 1995, the number of facilities in the backlog was 1,091. Wisconsin is among the slowest states in the nation to issue operation permits, and it is the slowest among midwestern states. The Legislature recently passed 2003 Wisconsin Act 118 to streamline the permitting process and increase the number of permits issued in a timely manner. We have included additional recommendations for streamlining the operation permit process.

Although DNR has generally met statutory and administrative code timeliness standards for issuing construction permits—which are needed for new construction or facility modification—we found 40 construction permits, or 29.2 percent of all pending applications, have been backlogged for at least two years. We recommend changes to streamline the process and issue construction permits in a more timely manner.

We also found numerous examples where program management could be improved, including better emission fee billing, issuing completed permits, obtaining applications from required facilities, issuing renewal permits, inspecting facilities, and consistently following federal and state enforcement policies.

We appreciate the courtesy and cooperation extended to us by DNR staff. The agency's response follows the appendices.

Respectfully submitted,

A handwritten signature in cursive script that reads 'Janice Mueller'.

Janice Mueller
State Auditor

JM/PS/ss

Report Highlights ■

Wisconsin is among the slowest states in the nation to issue major operation permits.

The process for issuing construction permits could be further streamlined.

DNR does not consistently follow federal and state enforcement guidelines.

Program management needs improvement.

The Department of Natural Resources (DNR) administers state and federal air management programs that regulate the emission of pollutants that have been linked to health problems in humans, as well as to smog and acid rain. As part of this responsibility, DNR is required to ensure that the 2,219 utilities, factories, and other stationary facilities it regulates are complying with the terms of their permits, and to monitor air quality throughout Wisconsin.

Representatives of regulated facilities contend that complying with Wisconsin's air pollution regulations is onerous and expensive, while representatives of environmental groups believe too little is being done to ensure compliance with state and federal air pollution laws. In response to concerns about the time DNR takes to issue permits, the fees regulated facilities are charged, the extent to which the State regulates air pollution beyond federal requirements, and DNR's approach to regulating sources of air pollution—and at the request of the Joint Legislative Audit Committee—we analyzed:

- permit backlogs, including the amount of time taken to issue operation and construction permits;
- the amount of time other states require to issue operation and construction permits;
- the equitableness of fees assessed to regulated facilities emitting varying amounts of pollutants;
- the extent to which Wisconsin has expanded upon regulatory requirements prescribed by federal law;

- air quality monitoring efforts by DNR staff; and
- compliance and enforcement efforts.

Operation Permits

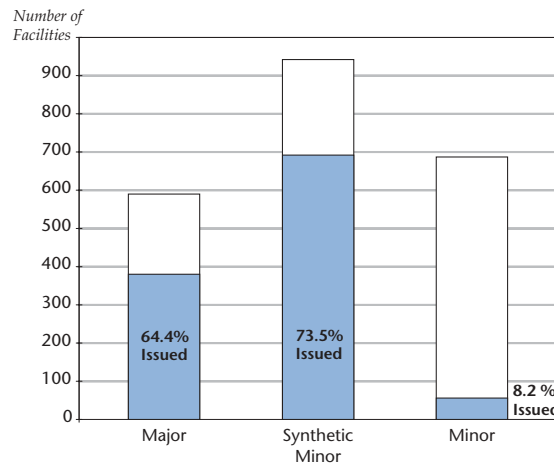
As shown in Figure 1, as of June 30, 2003, DNR had issued operation permits to 50.8 percent of the 2,219 facilities that had applied for them, including:

- 64.4 percent of federally required “major” permits, which have the highest potential air pollution emissions;
- 73.5 percent of federally required “synthetic minor” permits, which have lower potential air pollution emissions; and
- 8.2 percent of state-required “minor” permits, which have the lowest potential air pollution emissions.

In total, 1,128 permits were issued but 1,091 were backlogged.

Figure 1

Operation Permits Issued as of June 30, 2003



Under the federal Clean Air Act, Wisconsin was required to issue operation permits to all major facilities by March 1998. However,

Wisconsin issued only 64.4 percent of its major operation permits by June 30, 2003, the lowest percentage in the Midwest. By comparison, 80.9 percent of major permits had been issued nationally.

2003 Wisconsin Act 118, which took effect February 6, 2004, streamlines DNR's operation permit program and may help to address the permit backlog. DNR has also made several revisions to its plan for issuing operation permits and now anticipates issuing all federally required major permits by January 2005. No deadlines have been established for issuing either synthetic minor operation permits or minor operation permits. We make several recommendations to further streamline the operation permitting process.

Construction Permits

Wisconsin statutes and administrative rules require DNR to issue permits for new construction and facility modifications within specified time limits. DNR does not adequately track the time it takes to issue permits, but we found that, based on a random sample of 88 construction permit applications, DNR met statutory deadlines for 86.4 percent of construction permits issued. However, 29.2 percent of all construction permits pending as of June 30, 2003, had been backlogged for at least two years. DNR officials indicate that construction permits can become backlogged because some projects will be undertaken in the future, and permits for electrical generating facilities require approval from other regulatory bodies.

Because DNR has substantial flexibility in determining when an application is deemed complete and the statutory clock begins, we analyzed the time taken to issue permits from the dates applications were received. For the 88 permits in our sample, the median time was 103.5 days, including 52 permits issued within 120 days and 9 that took longer than one year.

2003 Wisconsin Act 118 reduces the time DNR is allowed for issuing construction permits. We make several recommendations to further streamline the construction permitting process.

Additional State Requirements

Wisconsin has expanded on federal air management requirements in two primary areas. First, Wisconsin regulates 293 more hazardous air pollutants than required by federal law. Of these, 94 were reported emitted by Wisconsin facilities in 2002. Three of five other midwestern states also exceed federal requirements for regulating hazardous air pollutants.

Second, Wisconsin facilities with potential emissions below federal requirements are generally required to obtain state-mandated minor operation permits. As of June 30, 2003, 687 facilities had applied for minor operation permits, but only 56 of these permits had been issued.

Enforcement Efforts

The number of facilities DNR inspects annually has generally declined over time, from 470 in fiscal year (FY) 1994-95 to 276 in FY 2002-03. DNR's records indicate that 15.0 percent of facilities have never been inspected.

In addition, DNR has failed to follow its own policies regarding enforcement against facilities that apply for construction permits after work is already complete, or against facilities that do not submit timely compliance certifications. We also found that DNR does not consistently follow federal policy in taking enforcement actions for high-priority violations. We make several recommendations to improve DNR's enforcement efforts.

Program Management

We identified a pattern of significant deficiencies in DNR program management, including:

- failing to identify 71 facilities that were required to apply for operation permits although DNR records indicate they did not, and failing to have documentation for why an additional 175 facilities may be exempt from permitting;
- failing to issue 113 operation permits even though they had already completed a public comment period and could have been issued, including 106 that could have been issued before June 30, 2002;
- failing to ensure that 49 facilities applied for renewal operation permits when required; and
- having no explanation for why 232 facilities have not reported emissions or paid emission fees, billing 11 facilities approximately \$21,000 when they should not have been billed, and failing to bill 13 other facilities approximately \$27,000.

In addition to the program and policy changes that recently took effect under 2003 Wisconsin Act 118, a number of proposed changes in federal law could also significantly affect the State's air management programs. Regardless of changes already enacted at the state level and additional changes that may result from efforts to modify federal requirements, DNR program management will need to be improved if Wisconsin's air management goals are to be accomplished.

Recommendations

Our recommendations address the need for DNR to:

- ☑ correct annual emission fees billing errors (*p. 25*);
- ☑ assign additional permit engineers to issue operation permits in the Southeast Region (*p. 41*);
- ☑ further streamline the operation permit program (*pp. 41 and 44*);
- ☑ ensure facilities have properly applied for permits (*p. 46*);
- ☑ issue completed permits (*p. 46*);
- ☑ ensure facilities apply for renewal operation permits (*p. 48*);
- ☑ revise the expedited review process for construction permits (*p. 61*);
- ☑ further streamline the construction permit program (*p. 63*);
- ☑ improve the facility inspection process (*p. 70*);
- ☑ improve compliance with federal policy for high-priority violations (*p. 72*);
- ☑ improve the compliance certification process (*p. 73*);
- ☑ identify after-the-fact permits and take appropriate enforcement action (*p. 74*);
- ☑ establish additional performance measures (*p. 79*);
- ☑ improve its data systems (*p. 80*); and
- ☑ report to the Joint Audit Committee by September 1, 2004, for follow-up (*p. 81*).

Introduction ■

DNR oversees two separate programs for regulating stationary sources of air pollution.

DNR regulates stationary sources of air pollution through two separate permitting programs:

- the operation permit program, which requires facilities to obtain permits to continue operations; and
- the construction permit program, which requires facilities to obtain permits before beginning new construction or making facility modifications that may have an effect on air quality.

DNR's stationary source air pollution permits limit pollution emissions by, for example, placing restrictions on manufacturing processes, requiring the use of pollution-control devices, restricting facility expansion or modification, and specifying the raw materials that may be used in manufacturing. Permits may also require facilities to conduct emissions monitoring and to report regularly to DNR. In addition to issuing permits, DNR is responsible for ensuring regulated facilities comply with federal and state law and monitoring changes in air quality.

In March 2002, we completed an evaluation of Wisconsin's vehicle emissions testing program, a federally required program to reduce air pollutants generated by motor vehicles that is jointly administered by DNR and the Department of Transportation. Our current review focuses on stationary sources of pollution. We analyzed state and federal laws; guidance documents prepared by

the United States Environmental Protection Agency (EPA); DNR policies, procedures, and work plans; and program budgets, expenditures, and staffing levels, including an analysis of how DNR staff report their time on air management activities. We interviewed DNR staff; EPA officials; other states' air management program staff; and representatives of business, industry, and environmental organizations. We surveyed facilities regulated under DNR's air management programs and analyzed DNR's electronic databases relating to permitted facilities and regulatory oversight.

Our review was hampered by incomplete and inaccurate data maintained by DNR.

It should be noted that our review was hampered by incomplete and inaccurate data maintained by DNR. As a result, we spent a substantial amount of time improving the quality of the data needed for our analyses.

Regulatory History of Air Pollution

In 1985, Wisconsin first required facilities to obtain operation permits.

Stationary sources of air pollution have been regulated in Wisconsin since 1961, when Milwaukee County exercised its statutory authority to adopt rules for visible particulate emissions. The federal Clean Air Act of 1970, which created the first significant national air quality standards, took effect in the same year that DNR implemented Wisconsin's first statewide air pollution control program. The State has since made many changes to its air pollution program. For example, state law first required stationary facilities to obtain operation permits that define emission limits in 1985, and regulations for hazardous air pollutants were first prescribed by DNR's administrative rules in 1988. Others changes were required by federal law, including various amendments to the federal Clean Air Act. Appendix 1 provides a time line for the regulation of stationary sources of air pollution from 1961 through 1994.

To comply with the federal Clean Air Act Amendments of 1990, the Legislature enacted 1991 Wisconsin Acts 269 and 302, which:

- required an operation permit for many stationary sources of air pollution;
- established a federal hazardous air pollutant program; and
- established permitting requirements that are more stringent for areas that do not meet federal air quality standards.

The Clean Air Act Amendments require Wisconsin to develop a state implementation plan for approval by the EPA. The plan is a collection of documents and regulations that identifies measures to control emissions of regulated pollutants and demonstrates how the State will attain national air quality standards. The EPA granted Wisconsin preliminary approval of its operation permit program in March 1995, and final approval in December 2001.

Effects of Pollution on Human Health

Federal law established six pollutants that are the primary components of air pollution.

Federal law has established six “criteria” pollutants that are the primary components of air pollution. As shown in Table 1, these pollutants are generated by a variety of sources and produce negative human health effects. They also cause environmental problems such as smog and acid rain.

Table 1

Federal Criteria Pollutants

Pollutant	Examples of Pollution Sources	Examples of Potential Human Health Effects
Sulfur Dioxide	Combustion of fossil fuels	Lung inflammation, aggravation of asthma, and development of allergies
Particulate Matter	Combustion of wood and fossil fuels	Increased lung cancer risk, cardiovascular disease, increased susceptibility to lung disease, bronchitis, and reduced lung growth in children
Carbon Monoxide	Combustion of fossil fuels	Cardiovascular disease
Ozone	Power plant emissions and vapors from paint, industrial coatings, and gasoline	Increased susceptibility to lung disease, bronchitis, reduced lung growth in children, and aggravation of asthma
Nitrogen Oxides	Combustion of fossil fuels	Increased susceptibility to lung disease, aggravation of asthma, and other respiratory diseases
Lead	Metal smelters and battery manufacturing	Damage to adult nervous system, kidneys, and reproductive systems, and damage to fetus development resulting in learning defects

Recent research studies that have linked these pollutants to negative health effects include:

- a two-year study published in 2001 by private and public institutions, including the Centers for Disease Control and Prevention, which concluded that exposure to carbon monoxide and sulfur dioxide pollution increased the risk of low birth weights for pregnancies in six northeastern United States cities;
- a 2002 American Cancer Society study of medical data for 1.2 million adults, which concluded that elevated levels of particulate matter increased rates of lung cancer and cardiac disease by 4 to 6 percent; and
- a study of the effects of ozone on Wisconsin children, conducted by the Department of Health and Family Services from 1995 to 1999, which estimated that between 13,900 and 38,600 children statewide experienced lung damage from ozone and that 43 children were admitted to hospitals due to high levels of particulate matter pollution.

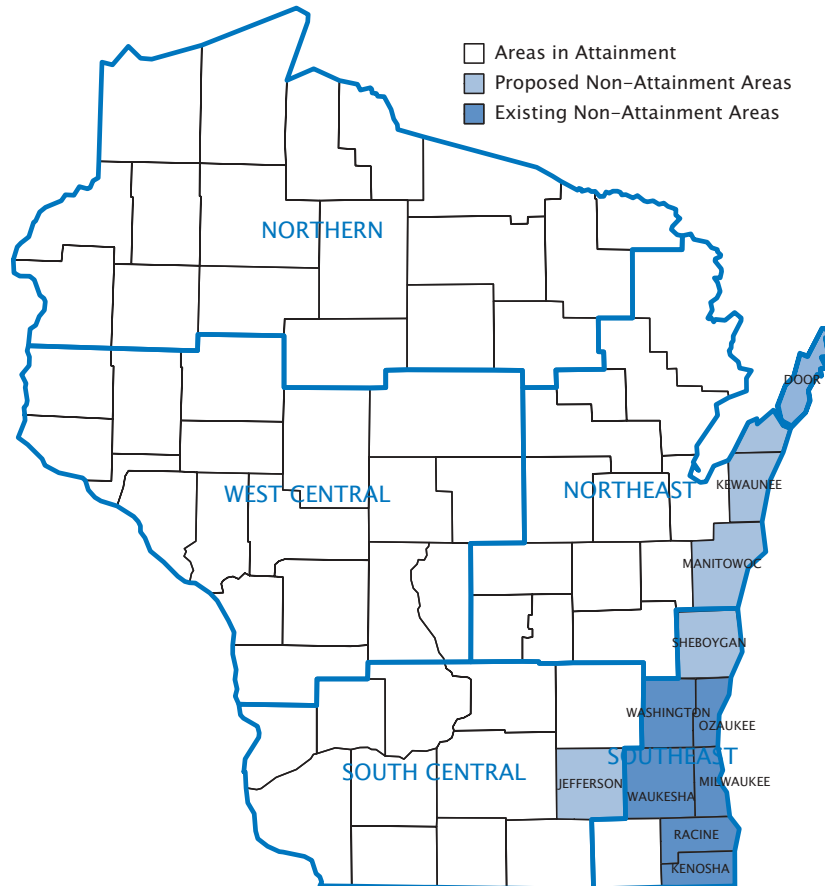
An area that fails to meet federal air quality standards for any of the six criteria pollutants may be designated a “non-attainment” area by the EPA. The air pollution control agency—which in Wisconsin is DNR—must then develop a plan to meet federal air quality standards. This plan may include testing automobile emissions, requiring more effective emission control technology for stationary facilities, and limiting the construction of certain sources of pollution. Large facilities that engage in construction or modification must obtain “emissions offsets” of the pollutant for which the non-attainment area is classified before their projects begin.

Six southeastern Wisconsin counties currently do not meet the federal ozone standard.

Figure 2 shows six counties in southeastern Wisconsin that are currently designated federal non-attainment areas for ozone, as well as five additional counties that may become non-attainment areas under a new, more stringent federal ozone standard to be implemented in 2004. Four of these additional counties—Door, Kewaunee, Manitowoc, and Sheboygan—were proposed as non-attainment areas by the Governor in July 2003. In December 2003, the EPA made a preliminary recommendation that also included Jefferson County as an ozone non-attainment area. The EPA’s final designation of Wisconsin’s non-attainment areas under the new ozone standard is expected to be announced in April 2004.

Figure 2

Ozone Non-Attainment Areas



Air quality has improved in 17 former non-attainment areas.

Seventeen other areas in Wisconsin—including counties, cities, towns, and villages—were at one time non-attainment areas because levels of four criteria pollutants—particulate matter, sulfur dioxide, carbon monoxide, and ozone—failed to meet federal air quality standards. However, as shown in Table 2, these areas met existing air quality standards by 2003. DNR staff attribute these air quality improvements to the use of less-polluting gasoline, better pollution-control devices on automobiles, and implementation of pollution-control technologies in stationary facilities.

Table 2

Former Non-Attainment Areas

Pollutant	Areas Affected	Date Area Met Federal Air Quality Standard
Particulate Matter	City of Beloit	June 1989
	City of Milwaukee	June 1989
	City of Waukesha	June 1989
Sulfur Dioxide	City of Green Bay	June 1991
	City of Madison	December 1986
	City of Milwaukee	June 1993
	City of Rhinelander	January 2001
	Town of Rib Mountain	July 2002
	Village of Brokaw	November 1986
	Village of Rothschild	July 2002
	Village of Weston	July 2002
Carbon Monoxide	City of Milwaukee	July 1990
Ozone	Door County	April 2003
	Kewaunee County	August 1996
	Manitowoc County	April 2003
	Sheboygan County	August 1996
	Walworth County	August 1996

Hazardous Air Pollutants

In addition to the six criteria pollutants, federal law also regulates 188 hazardous air pollutants that include benzene, chloroform, and phosphorus. The health effects of hazardous air pollutants range from irritation of the eyes, skin, and respiratory system to cancer. Under federal law, if a facility has the potential to emit 10 tons of any single federal hazardous air pollutant annually, or a combined total of 25 tons of these pollutants annually, the facility must comply with federal standards, which may include implementing controls to limit emissions.

Wisconsin regulates 293 hazardous air pollutants that are not regulated under federal law.

Wisconsin air pollution laws exceed federal requirements in the area of hazardous air pollutants. Through administrative rule, a state-mandated program regulates 293 more hazardous air pollutants than required by federal law, including sulfuric acid, nitric acid, and iodine. However, as shown in Table 3, only 94 of the 293 hazardous air pollutants regulated exclusively under state law, or 32.1 percent, were reported emitted in 2002. In contrast, 92 of the 151 hazardous air pollutants regulated under both federal and state law, or 60.9 percent, were reported emitted in 2002. It should be noted that additional hazardous air pollutants may be emitted at levels below reporting thresholds.

Table 3
Regulation and Emissions of Hazardous Air Pollutants

Method of Regulation	Number of Hazardous Air Pollutants Regulated	Number of Hazardous Air Pollutants Emitted in 2002	Percentage of Regulated Pollutants Emitted in 2002
Federal Law Exclusively	37	17	45.9%
State Law Exclusively	293	94	32.1
Both Federal and State Law ¹	151	92	60.9
Total	481	203	

¹ Includes at least 56 pollutants that Wisconsin regulates at a lower emissions threshold than is required by federal law.

All EPA Region 5 states—Wisconsin, Illinois, Indiana, Ohio, Michigan, and Minnesota—require facilities to comply with federal hazardous air pollutant standards. Four of these states, including Wisconsin, also have state hazardous air pollutant programs that regulate more pollutants than federal law does. However, other Region 5 states’ programs differ from Wisconsin’s in a number of ways.

The regulation of hazardous air pollutants is handled differently in other midwestern states.

For example, the other Region 5 states with state programs employ toxicologists who determine, on a case-by-case basis, whether facilities are required to implement controls for specific hazardous air pollutants. In addition, these states require only certain facilities to comply with state-mandated hazardous air pollutant regulations, whereas Wisconsin requires compliance from all permitted facilities that have hazardous air pollutant emissions above a threshold that varies by pollutant. For example, only facilities that apply for

federally required permits may undergo hazardous air pollutant assessments in Michigan, while Minnesota requires certain larger facilities, or facilities for which a citizen complaint has been received, to undergo hazardous air pollutant assessments, and Ohio requires state hazardous air pollutant assessments only of facilities that may emit more than a combined total of one ton of hazardous air pollutants annually. In all three of these states, facilities are required to limit emissions if they are found to emit a hazardous air pollutant at a level that presents a risk to human health.

In 2003, the Natural Resources Board recommended modifications to Wisconsin's hazardous air pollutant regulations that would have increased the number of pollutants regulated exclusively under state law by 138, and a separate rule that would have regulated mercury emissions. The Legislature sent both proposed rules back to DNR for revision, where they are currently pending.

Air Monitoring Efforts

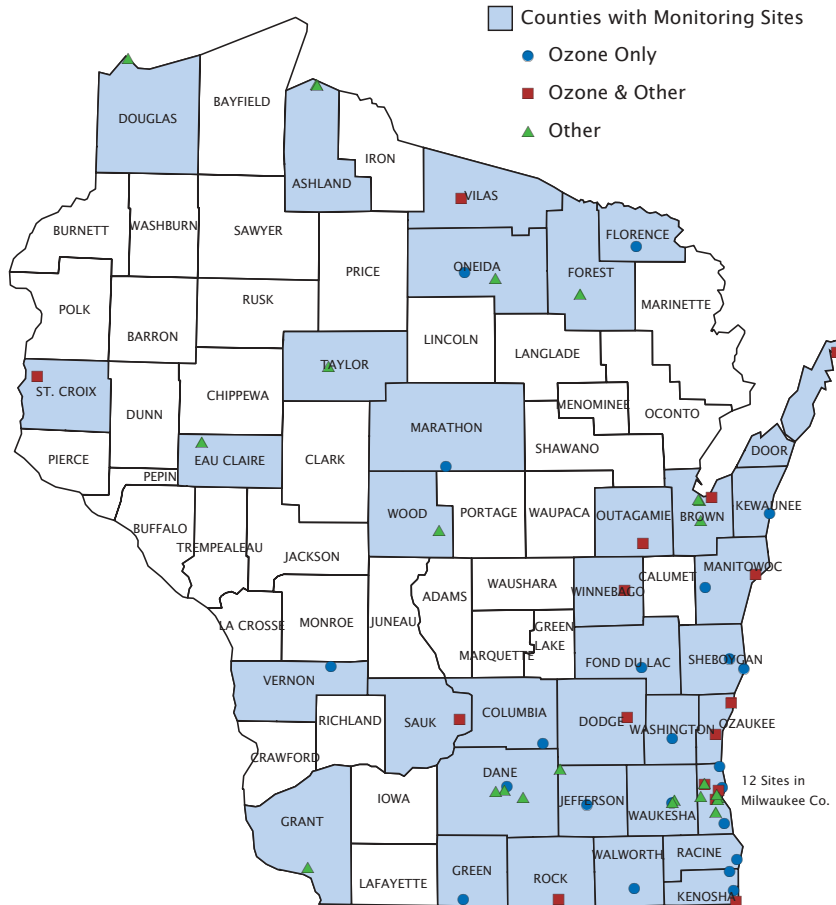
In response to budget constraints, DNR plans to eliminate 17 monitoring sites.

Federal law requires states to maintain a series of monitoring stations to measure air pollution and air quality. In 2003, DNR maintained 62 monitoring sites in 35 counties to monitor carbon monoxide, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. As shown in Figure 3, most of these sites are located in southeastern Wisconsin, including 12 sites in Milwaukee County, where ozone levels are historically high. Western Wisconsin has the fewest sites, which are maintained to provide background data. In FY 2003-04, in response to budget cutbacks and a reallocation of personnel, DNR announced plans to eliminate eight ozone monitoring and nine particulate matter monitoring sites, as well as aircraft flights for Lake Michigan ozone sampling. DNR officials indicated that the EPA has approved these changes.

The EPA has developed an air quality index that focuses on health problems people may experience within a few hours or days of breathing polluted air. It classifies daily air monitoring results into one of six categories: good, moderate, unhealthy for sensitive groups, unhealthy, very unhealthy, or hazardous. Sensitive groups include people with ailments such as asthma, angina, and anemia, as well as older adults and young children.

Figure 3

Air Pollution Monitoring Sites



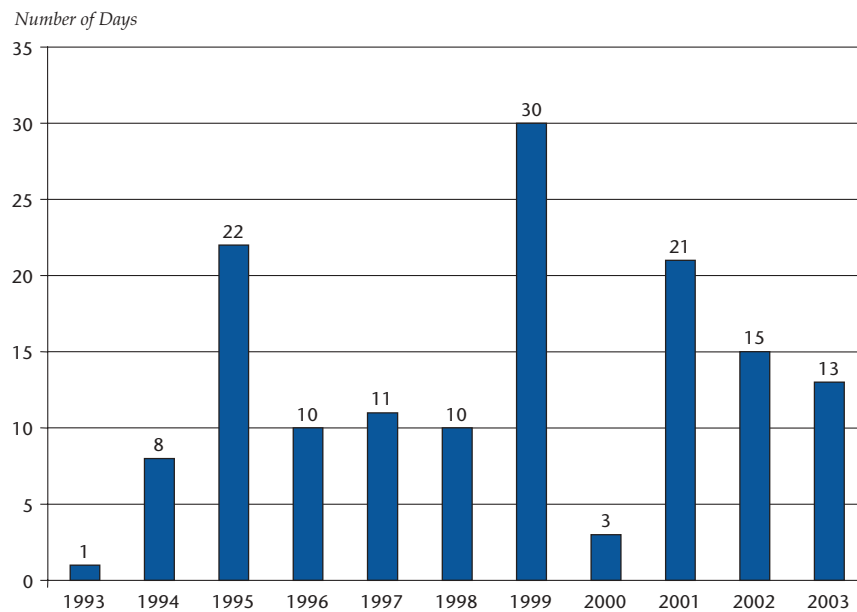
Unhealthy air was measured in Door, Kenosha, and Manitowoc counties in over 3.0 percent of the days monitored.

Since 1993, Wisconsin has had no days categorized as very unhealthy or hazardous. However, many of the monitored Wisconsin counties had days categorized as either “unhealthy for sensitive groups” or “unhealthy,” as shown in Appendix 2. Several counties consistently had higher percentages of days with unhealthy air. For example, for 8 of 11 years, Door, Kenosha, and Manitowoc counties had unhealthy air quality for a total of 252 days, representing over 3.0 percent of the days monitored. In addition, both Kenosha County in 1995 and Sheboygan County in 2002 had 19 days—representing 10.3 percent of days monitored—with unhealthy air quality, which was the highest percentage in the state.

Another way to measure air quality is to examine the number of days federal air quality standards have been exceeded. As shown in Figure 4, ozone levels—which are associated with sunlight and high temperatures—in Wisconsin counties would have exceeded the EPA’s new, more restrictive ozone standard for a total of 144 days since 1993, including a high of 30 days in 1999. Overall, a total of 22 Wisconsin counties would have had at least one day exceeding the new ozone standard since 1993, including Milwaukee County, where the new standard would have been exceeded for 26 days since 1993. In addition, Milwaukee County had one day in 1999 that violated the federal standard for particulate matter.

Figure 4

Cumulative Days in Which Ozone Levels Have Exceeded New Federal Standard



Finances and Staffing ■

DNR's air management programs have three primary funding sources: emission fees assessed on facilities that are required to obtain operation permits, federal grants, and construction permit fees. Wisconsin's emission fees have remained unchanged since 2001, and in December 2002 several environmental organizations petitioned the EPA to find the State in violation of the Clean Air Act for failure to maintain fees at a level sufficient to administer the operation permit program. As a result of conversations they have had with the EPA, DNR officials believe Wisconsin will likely be found in violation, and EPA will issue a notice of deficiency in early 2004, which will identify specific deficiencies and identify remedies and sanctions that may be sought.

Our analysis shows that emission fees vary significantly among midwestern states, and DNR has made errors in emission fee billings. Although program staffing levels have declined, a recent reorganization will increase the number of DNR staff assigned to issue permits and perform compliance inspections, while it will reduce the number of staff working on monitoring and administrative rules related to hazardous air pollutants and mercury.

Revenues and Expenditures

As shown in Table 4, air management revenues have increased from \$14.9 million in FY 1996-97 to \$19.3 million in FY 2002-03, or by 29.7 percent. Emission fees are the largest source of these revenues.

Table 4

Air Management Revenues

Source	FY 1996-97	FY 2002-03	Percentage Change
Emission Fees ¹	\$ 8,420,321	\$ 9,745,845	15.7%
Federal Grants	2,792,966	4,345,233	55.6
Construction Permit Fees	1,342,600	2,293,871	70.9
Petroleum Inspection Fund	1,916,734	2,053,284	7.1
Other ²	433,637	856,328	97.5
General Purpose Revenue	0	45,118	–
Total	\$14,906,258	\$19,339,679	29.7

¹ Includes fees billed during the fiscal year.

² Includes specialized fees, such as for ozone depleting substances, asbestos abatement, and miscellaneous revenues.

Emission fees are established by statute and are currently set at \$35.71 per ton of pollutants emitted.

The Clean Air Act Amendments of 1990 require annual emission fees from regulated facilities to cover states' costs of administering the operation permit program. In Wisconsin, emission fees are established by statute and are currently set at \$35.71 per ton for up to 5,000 tons per pollutant, with no additional fee for emissions exceeding this amount. The construction permit program is funded from separate fees that facilities pay when applying for construction permits. Construction permit fees vary depending on the level of modification, type of facility, control technology required, modeling requirements, and whether an expedited review is requested.

Expenditures have increased from \$14.9 million in FY 1996-97 to \$17.8 million in FY 2002-03.

As shown in Table 5, air management expenditures have increased from \$14.9 million in FY 1996-97 to \$17.8 million in FY 2002-03, or by 20.0 percent. Salary and fringe benefit costs accounted for the majority of expenditures in both years and represented 74.7 percent of total costs in FY 2002-03.

Table 5

Air Management Expenditures

Type	FY 1996-97	FY 2002-03	Percentage Change
Salaries	\$ 8,293,598	\$ 9,902,694	19.4%
Fringe Benefits	2,633,715	3,418,130	29.8
Contractual Services	1,485,621	2,249,493	51.4
Supplies and Services	1,949,579	1,798,757	(7.7)
Other ¹	509,356	473,730	(7.0)
Total	\$14,871,869	\$17,842,804	20.0

¹ Includes 2.0 positions at Department of Commerce, travel, and training expenditures.

Emission Fees

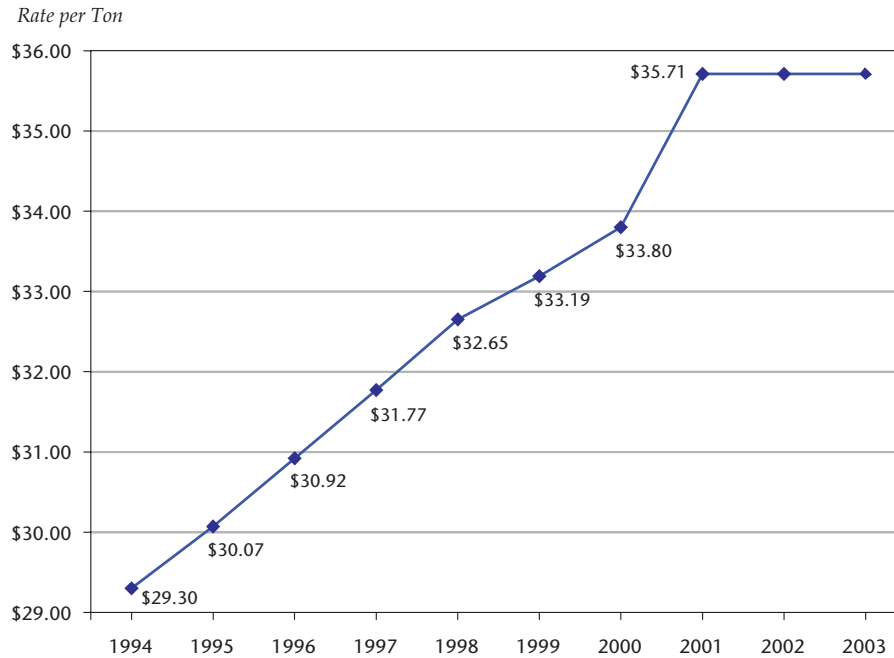
Beginning in 2001, emissions fees no longer increased with the consumer price index.

As shown in Figure 5, emission fees have increased from \$29.30 per ton in 1994 to \$35.71 per ton in 2001 and thereafter. This is an increase of 21.9 percent. Between 1993 and 2000, the fee increased automatically based on the annual change in the consumer price index and was capped at 4,000 tons for each pollutant. The automatic annual increase was replaced with a fixed fee of \$35.71, and the cap increased to 5,000 tons for each pollutant, under 1999 Wisconsin Act 9, the FY 1999-2001 Biennial Budget Act.

Some have suggested that the current fee structure is unfair to smaller facilities, because it requires them to pay a higher rate per ton than facilities whose emissions exceed the cap. We analyzed the most recent emission fees and found that facilities below the cap emitted 25.3 percent of the billable pollutants but were billed for 41.9 percent of emission fees. On the other hand, 16 facilities with annual emissions over the 5,000 ton per pollutant cap emitted 74.7 percent of billable pollutants but accounted for 58.1 percent of the total emission fees. As a result of the cap, these 16 facilities were not billed for a total of 179,156 tons of pollutants and paid an effective rate of only \$16.78 per ton, or 47.0 percent of the current fee.

Figure 5

**History of Stationary Source Emission Fees
(Rate per Ton of Billable Pollutants)**



Environmental organizations allege emission fees are insufficient to meet program needs.

As noted, federal law requires annual emission fees collected from facilities to cover the costs of administering the operation permit program. In December 2002, several Wisconsin environmental organizations filed a petition requesting the EPA to issue a notice of deficiency against the State for its alleged failure to maintain an emission fee structure that raises sufficient revenue to administer its operation permit program. The EPA has not yet responded to this petition, but based on conversations with the EPA, DNR officials believe that a notice of deficiency will likely be issued in early 2004. The specific deficiencies to be cited or what remedies or sanctions will be sought are not known. However, if the State fails to take sufficient action to correct program inadequacies, the EPA may enact sanctions, including increased emission offset requirements in non-attainment areas, the loss of federal highway funds, or the loss of program approval. If the EPA withdraws approval of the State's operation permit program, it has the authority to impose a federally administered program in Wisconsin.

Comparison of State Emission Fees

Air emission fees vary significantly among midwestern states.

As shown in Table 6, air emission fee structures vary significantly among EPA Region 5 states, making direct comparisons difficult. For example some states, including Wisconsin, charge all facilities a rate that is based on the number of tons of billable air pollutants that are emitted, while other states charge a flat fee as part of their rate. Also, some states charge different rates depending on the type of permit required or the type of federal pollution control technology standards required. All Region 5 states except Minnesota have established a maximum fee that a single facility may be charged.

Table 6
Comparison of Emission Fees for Major Facilities in Region 5 States¹

State	Fee	Cap on Fee
Illinois	\$18.00 per ton (\$1,800 minimum)	\$250,000
Indiana	\$1,500 plus \$33.00 per ton	\$150,000 in attainment areas \$200,000 in non-attainment areas
Michigan	\$4,485 plus \$45.25 per ton	1,000 tons per pollutant to a maximum of 4,000 tons
Minnesota	\$27.61 per ton	None
Ohio	\$36.30 per ton	4,000 tons per pollutant
Wisconsin	\$35.71 per ton	5,000 tons per pollutant

¹ All per ton fees are based on actual annual emissions except Illinois', which is based on emission levels allowed by permit. According to Illinois officials, allowable emissions are generally two to three times the level of actual emissions.

To illustrate differences in fee structures, Table 7 shows what two hypothetical facilities would be billed in each state. Facility A is typical of many facilities that are required to be regulated under federal law: it emits 100 tons of particulate matter, 100 tons of nitrogen oxides, and 20 tons of volatile organic compounds annually. In Wisconsin, facility A would be billed the second-lowest amount, \$7,856. In Michigan the same facility would be billed the highest amount, \$14,440, and in Minnesota the lowest amount, \$6,074.

Facility B would be one of the largest emitters in Wisconsin: it emits 27,500 tons of sulfur dioxide, 11,000 tons of nitrogen oxides, 3,000 tons of particulate matter, and 140 tons of volatile organic compounds. In Wisconsin, facility B would be billed the second-highest amount, \$469,229. In Minnesota the same facility would be billed the highest amount, \$1.1 million, and in Indiana the lowest amount, \$150,000 in an attainment area.

Table 7

Annual Emission Fees for Hypothetical Facilities in Region 5 States

State	Facility A	Facility B
Illinois	\$ 7,920 to 11,880 ¹	\$ 250,000
Indiana	8,760	150,000 in attainment areas 200,000 in non-attainment areas
Michigan	14,440	185,485
Minnesota	6,074	1,149,680
Ohio	8,052	407,724
Wisconsin	7,856	469,229

¹ Estimated because Illinois determines fees based on allowable emissions instead of actual emissions.

Billing Errors

Since 1996, DNR failed to bill 13 facilities and to collect approximately \$27,000 in fees.

During the course of our evaluation, we analyzed annual emission fees billed from 1996 through 2003. We found that DNR failed to bill 13 facilities—including 10 from its Southeast Region—that reported annual emissions at a level exceeding the minimum threshold for billing. As a result, DNR failed to collect approximately \$27,000 in emission fees, including \$8,200 from a single facility.

We also identified 11 facilities that were inappropriately billed from 1996 to 2003. These facilities were not required to obtain permits and therefore were exempt from emission fees. As a result, DNR collected approximately \$21,000 in emission fees that should not have been billed, including \$7,500 from a single facility. DNR regional staff are provided the annual emissions inventory data for review, to ensure that all facilities are properly billed. However, neither regional staff nor central office staff identified these errors, even though they occurred over several years.

DNR cannot explain why 232 facilities have not reported emissions or paid emission fees.

Finally, we identified 232 facilities that applied for operation permits but have not reported emissions or paid emission fees. Although many of these facilities may be exempt because their emissions are below the reporting threshold, DNR officials were unable to explain either why these facilities failed to report emissions or why they should not be billed. Because none of these facilities reported emissions, we were unable to estimate the potential level of foregone revenue.

Recommendation

We recommend the Department of Natural Resources:

- *determine which of the 232 facilities are required to report emissions and ensure that these facilities pay the appropriate fees;*
- *refund emission fees to the 11 facilities that should not have been billed; and*
- *establish procedures to ensure that all facilities are billed appropriately in the future.*

Staffing

Program staffing levels declined 8.1 percent from FY 1996-97 to FY 2002-03.

As shown in Table 8, overall program staffing declined 8.1 percent and staffing for the Bureau of Air Management declined 6.5 percent, from 180.00 full-time equivalent (FTE) staff in FY 1996-97 to 168.25 FTE in FY 2002-03. 2003 Wisconsin Act 33, the FY 2003-05 Biennial Budget Act, further reduced Bureau of Air Management staff by 11.50 FTE positions. As a result, the number of authorized FTE positions was reduced from 168.25 to 156.75, or by an additional 6.8 percent.

Table 8

Number of Authorized Air Management Staff
(All Funding Sources, FTEs)

Functional Location	FY 1996-97	FY 2002-03	Percentage Change
Bureau of Air Management			
Central Office	81.25	65.50	(19.4)%
Southeast Region	46.50	44.00	(5.4)
Northeast Region	17.00	19.50	14.7
South Central Region	15.00	18.75	25.0
West Central Region	11.50	13.50	17.4
Northern Region	8.75	7.00	(20.0)
Subtotal	180.00	168.25	(6.5)
Air Management Staff in Other Locations			
Air and Waste Division Management	4.00	3.00	(25.0)
Division of Enforcement and Science	1.50	2.50	66.7
Division of Administration and Technology	6.00	0.50	(91.7)
Division of Customer Assistance and External Relations	6.75	7.75	14.8
Department of Commerce	2.00	2.00	0.0
Subtotal	20.25	15.75	(22.2)
Total	200.25	184.00	(8.1)

We reviewed the number of hours DNR staff reported spending on various activities from FY 1996-97 through FY 2002-03. In FY 2002-03, Bureau of Air Management staff spent the largest percentage of time, 25.4 percent, on permit-related activities, as shown in Table 9. From FY 1996-97 through FY 2002-03, the number of hours spent on permits increased 17.8 percent, while the number of hours spent on compliance and enforcement activities decreased 16.8 percent.

Table 9

Air Management Staff Work Effort¹
(Number of Hours Reported)

Activity	FY 1996-97	FY 2002-03	Percentage of FY 2002-03 Total	Percentage Change
Permits	68,116	80,256	25.4%	17.8%
Administration	58,692	61,404	19.4	4.6
Monitoring and Research	64,397	60,571	19.2	(5.9)
Compliance and Enforcement	63,681	53,013	16.8	(16.8)
Planning and Policy Development	28,181	25,944	8.2	(7.9)
Mobile Sources	14,476	11,199	3.5	(22.6)
Other	11,724	11,142	3.5	(5.0)
Outreach and External Assistance	6,709	6,966	2.2	3.8
Non-Air Management Activities	874	5,426	1.7	520.8
Total	316,850	315,921	100.0%	(0.3)

¹ Includes both full-time employees and limited-term employees.

In August 2003, DNR reorganized the Bureau of Air Management to more closely align its functions and funding sources. As part of this reorganization, approximately 21 FTE positions funded by emission fees were reassigned to new functions within the Bureau. According to DNR officials, the reorganization will increase the number of staff assigned to issue permits and perform compliance inspections, while it will reduce the number of staff working on air monitoring and policy development, particularly related to mercury, climate change, ozone, and hazardous air pollutants.



Program Requirements
Regulated Sources of Air Pollution
Satisfaction with the Operation Permit Program
Issuance of Operation Permits
Deadlines for Operation Permit Issuance
Deficiencies in Program Management
Renewing Operation Permits

Operation Permit Program ■

An operation permit is intended to consolidate all of a regulated facility's air pollution control requirements into a single document. The type of permit a facility must obtain depends on the amount of its potential emissions, pollutant type, and whether it is located in an attainment or a non-attainment area. Like most state and local air pollution permit authorities nationwide, Wisconsin has not met federally mandated deadlines for issuing operation permits. Nonetheless, facilities that have submitted operation permit applications are authorized to continue operation while DNR completes its review. DNR anticipates completion of the remaining major operation permits by January 2005, nearly seven years after the federal deadline. By reducing or eliminating permitting requirements on some regulated facilities, 2003 Wisconsin Act 118 will likely reduce permitting delays, but additional efforts will be needed to ensure that permits are issued in a more timely fashion. Program management deficiencies have resulted in facilities failing to apply for permits and in DNR failing to issue completed operation permits.

Program Requirements

An operation permit program is required by federal law.

The Clean Air Act Amendments of 1990 required state and local air pollution control agencies to implement operation permit programs to ensure compliance with federal air pollution laws and to improve enforcement. The primary components of a federally mandated operation permit include:

- site-specific limits on the amount of criteria pollutants and hazardous air pollutants that may be emitted;
- emissions tracking and reporting mechanisms;
- specification of mandatory pollution control technologies for reducing air pollution;
- monitoring, testing, and record-keeping requirements to ensure compliance with emission limits and other air pollution control requirements;
- requirements for self-reporting violations and submitting an annual certification that a facility has met all applicable permit requirements;
- a mechanism for making the terms of a permit federally enforceable; and
- annual fees to be paid by regulated facilities.

Wisconsin's operation permit program includes federal and state requirements.

The EPA is responsible for promulgating regulations that establish the minimum elements of the federally mandated operation permit program and for reviewing, approving, and overseeing state and local permit programs. Once federally mandated permit programs have been approved by the EPA, state and local agencies are responsible for establishing and implementing them, issuing permits to stationary sources of air pollution, collecting fees to cover program costs, and ensuring that facilities comply with permit requirements. Because Wisconsin's operation permit program also incorporates additional state requirements, DNR issues several types of permits.

"Major" facilities have the largest emissions potential and must obtain federal permits from DNR.

In Wisconsin, facilities with the largest potential to emit pollutants are known as "major" sources and are required to obtain federal operation permits from DNR. These permits may be enforced by either the State or the federal government, but the EPA allows states to enforce them in almost all instances.

"Synthetic minor" facilities voluntarily reduce emissions to become eligible for State permits.

Both state and federal law allow facilities that would otherwise require major operation permits to qualify for less-restrictive federally enforceable state operation permits, which are commonly called "synthetic minor" permits, by voluntarily reducing emissions through, for example, limited hours of operation or changes in materials used in production. Facility operators often prefer this option, because synthetic minor facilities are subject to less-extensive inspection and reporting requirements.

Although most facilities receive permits that are specifically tailored to their operations, DNR has the authority to issue general operation permits to categories of facilities that have similar operations and emission potentials. These permits contain the same requirements and conditions as individual permits, but the application and review process is substantially simplified. DNR has issued general operation permits for rock and gravel crushers, hospital sterilization systems, and small heating units.

“Minor” facilities are regulated only under state law because their potential emissions are below federal thresholds.

In Wisconsin, facilities with potential emissions below federal thresholds, known as “minor sources,” may be required to obtain state-mandated minor operation permits, which may only be enforced by the State. This is an area in which Wisconsin regulations exceed the requirements of federal law.

Facilities may also be exempted from the operation permit program, either because they do not meet the emissions thresholds that require a permit or because of a categorical exemption. Examples of categorically exempt facilities include low-capacity combustion furnaces, grain drying and storage facilities, graphic arts operations, coin-operated dry cleaners, crematories, laboratories, municipal drinking water facilities, and emergency generators. 2003 Wisconsin Act 118, which took effect in February 2004, also requires DNR to exempt from permitting requirements those facilities that do not present a significant threat to public health or the environment. How this requirement will be implemented by DNR and the number of facilities that will be exempted are not known at present.

As noted, the criteria for determining what type of permit a facility must obtain depends on the amount of its potential emissions, pollutant type, and whether it is located in an attainment or a non-attainment area. For example, facilities located in an air quality attainment area are considered major if they have the potential to emit:

- 100 tons or more per year of any single criteria air pollutant; or
- 10 tons or more per year of any single hazardous air pollutant, or 25 tons or more per year of any combination of the 188 hazardous air pollutants that are federally regulated.

In Wisconsin, minor permits are required for facilities that have the potential to emit:

- 40 tons or more per year of sulfur dioxide or carbon monoxide;
- 25 tons or more per year of nitrogen oxides, particulate matter, or volatile organic compounds; or
- more than the limits established for one or more of the 444 hazardous air pollutants regulated by the State.

All EPA Region 5 states issue major and synthetic minor permits to facilities that are required to comply with the Clean Air Act, and four of five other Region 5 states require minor permits for facilities that emit lower levels of pollutants. The other states' minor permit programs vary significantly. For example:

- Ohio and Illinois require facilities to obtain minor permits at significantly lower emission levels than Wisconsin's thresholds;
- Indiana's minor permit thresholds are similar to or lower than Wisconsin's;
- Minnesota's minor permit thresholds are higher than Wisconsin's; and
- Michigan does not require state minor permits.

In addition:

- minor permits generally do not need to be renewed in Illinois and Minnesota, while Wisconsin, Indiana, and Ohio require renewal; and
- in Minnesota, minor operation permits are required for only three criteria pollutants: sulfur dioxide, particulate matter, and lead. In contrast, Wisconsin, Indiana, Illinois, and Ohio require minor operation permits for facilities that emit any of the six criteria pollutants, if thresholds are met.

Regulated Sources of Air Pollution

As of June 30, 2003, 2,219 facilities were required to obtain operation permits.

As of June 30, 2003, based on DNR's best available information, 2,219 stationary facilities were required to obtain operation permits, as shown in Table 10. DNR estimates that 590 of these facilities, or 26.6 percent, require a major operation permit.

Table 10

Number of Stationary Facilities Subject to Operation Permit Requirements As of June 30, 2003

Region	Major	Synthetic Minor ¹	Minor	Total	Percentage of Total
Southeast	218	210	186	614	27.7%
Northeast	127	155	200	482	21.7
South Central	92	148	125	365	16.4
West Central	101	136	104	341	15.4
Northern	52	67	72	191	8.6
Portable ²	0	226	0	226	10.2
Total	590	942	687	2,219	100.0%

¹ Includes general permits.

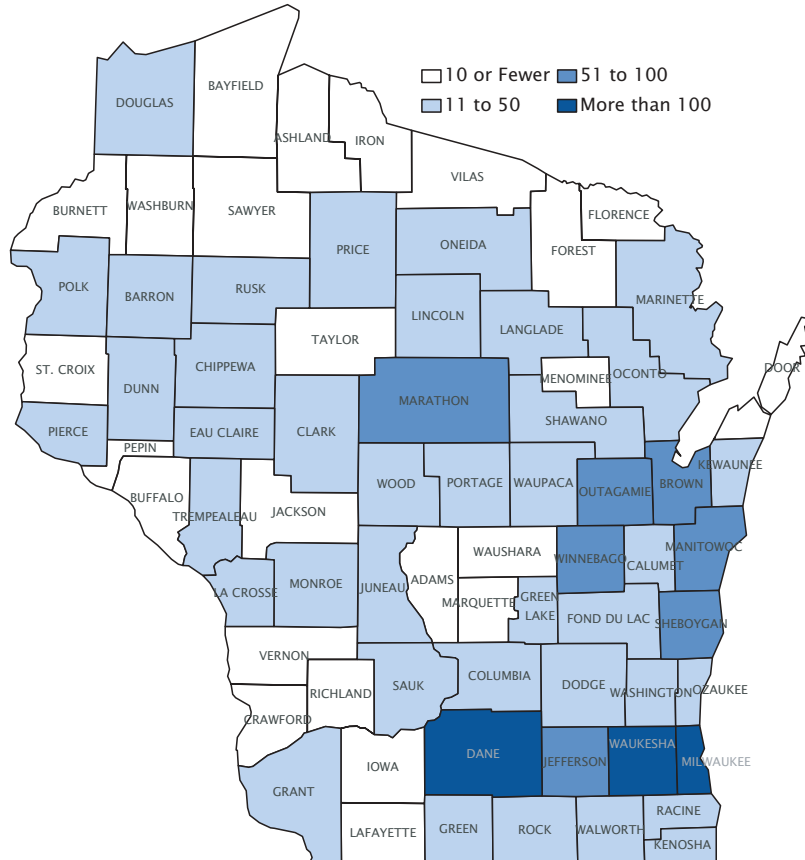
² Portable facilities include road building machinery and are not assigned to a region.

More than one-quarter of regulated facilities are located in DNR's Southeast Region.

More than one-quarter of these facilities are located in DNR's Southeast Region, including 218 of 590 major facilities (36.9 percent). The higher percentage of major facilities in the Southeast Region is partially due to lower emissions thresholds for major permits in non-attainment areas. Stationary facilities are located throughout Wisconsin but tend to be clustered around metropolitan areas, including the Fox Valley, Madison, and Milwaukee. As shown in Figure 6, Milwaukee, Waukesha, and Dane counties have more than 100 facilities that have applied for permits.

Figure 6

**Number of Facilities That Have Applied for Operation Permits, By County
(Excluding Portable Facilities)**



For calendar year 2002, a total of 1,950 facilities reported air pollution emissions to DNR.

A total of 1,950 facilities reported air pollution emissions for calendar year 2002, as shown in Table 11. Nonmetallic minerals industries, which include gravel and rock crushers and other excavating businesses, accounted for the largest number of reporting facilities but a small percentage of reported pollutants. In contrast, the paper and allied products and the electric, gas, and sanitary industries, which accounted for approximately the same number and percentage of facilities, reported 85.4 percent of the statewide emissions of criteria pollutants.

Table 11
Facilities Reporting Air Pollution Emissions
 Calendar Year 2002

Facility Type	Number of Facilities Reporting	Percentage of Total Facilities	Tons of Criteria Pollutants	Percentage of Reported Pollutants
Nonmetallic Minerals	228	11.7%	3,933	0.8%
Fabricated Metal Products	174	8.9	5,131	1.0
Food Products	150	7.7	5,754	1.1
Industrial Machinery and Equipment	128	6.6	5,182	1.0
Paper and Allied Products	119	6.1	108,671	21.1
Lumber and Wood Products	116	5.9	5,757	1.1
Printing and Publishing	115	5.9	2,809	0.5
Electric, Gas, and Sanitary Services	106	5.4	330,489	64.3
Petroleum and Coal Products	106	5.4	4,960	1.0
Primary Metal Industries	89	4.6	13,129	2.6
Rubber and Plastics Manufacturing	83	4.3	1,978	0.4
Transportation Equipment Manufacturing	64	3.3	3,274	0.6
Electronics Equipment Manufacturing	56	2.9	1,412	0.3
Stone, Clay, and Glass Products	53	2.7	8,710	1.7
Furniture and Fixtures	52	2.7	1,260	0.2
Chemical Manufacturing	47	2.4	2,107	0.4
Wholesale Trade Goods	43	2.2	589	0.1
Hospitals and Health Services	37	1.9	496	0.1
Educational Institutions	24	1.2	4,160	0.8
Miscellaneous Manufacturing	23	1.2	290	0.1
Heavy Construction Industries	21	1.1	303	0.1
Other Industry ¹	116	5.9	3,493	0.7
Total	1,950	100.0%	513,887	100.0%

¹ Includes all other facilities, occupations, and establishments not included in categories listed.

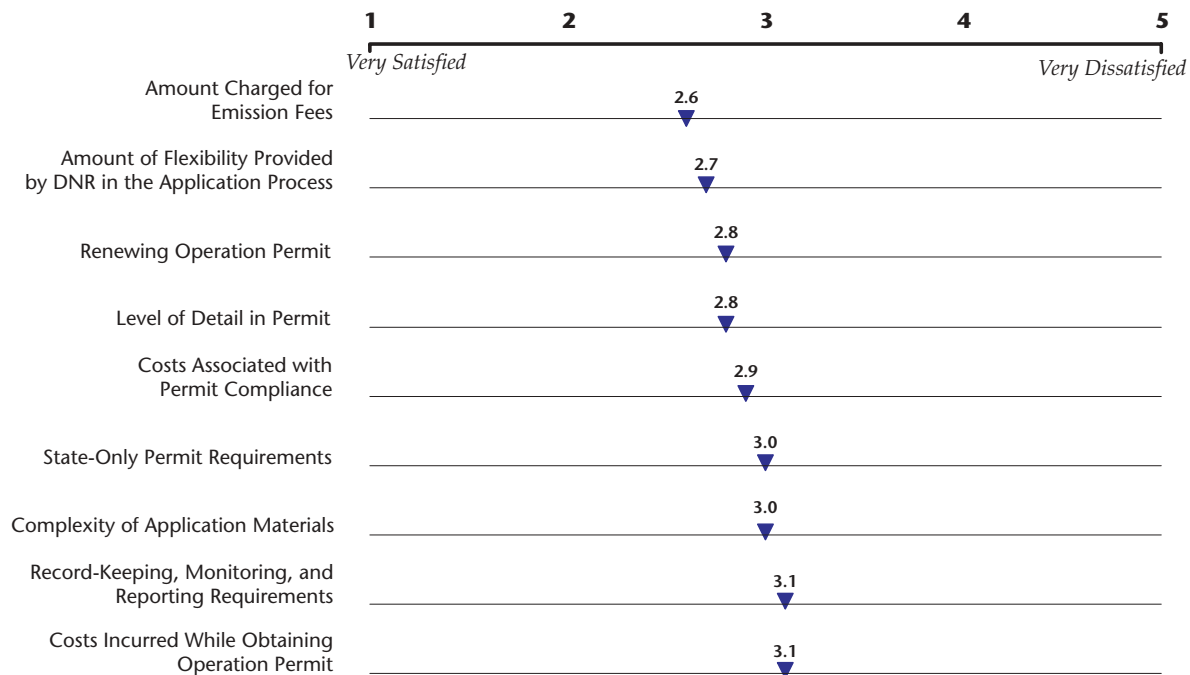
Satisfaction with the Operation Permit Program

Survey respondents were slightly more satisfied than dissatisfied with DNR's operation permit program.

To gain an understanding of regulated facilities' level of satisfaction with the operation permitting process, we surveyed 153 randomly selected operators of facilities that had applied for operation permits. We received 81 responses to our survey. As shown in Figure 7, respondents reported the highest level of satisfaction with the amount charged for emission fees, while costs incurred while obtaining an operation permit and record-keeping, monitoring, and reporting requirements had the lowest levels of satisfaction. Overall, the average level of satisfaction was 2.9, which indicates that respondents were slightly more satisfied than dissatisfied with the operation permit program.

Figure 7

Regulated Facilities' Satisfaction with the Operation Permit Program



Scale: 1 = "Very Satisfied;" 2 = "Satisfied;" 3 = "Satisfied with Some Aspects but Dissatisfied with Others;" 4 = "Dissatisfied;" and 5 = "Very Dissatisfied."

Regulated facilities were most concerned with record-keeping, monitoring, and reporting requirements.

In addition to asking regulated facilities about their level of satisfaction with topics related to the operation permit program, we also asked facilities to identify a single topic of greatest concern. Approximately 36 percent of respondents identified record-keeping, monitoring, and reporting requirements associated with operation permits. As shown in Table 12, respondents were least concerned about the level of detail in the permit.

Table 12

Regulated Facilities' Greatest Concern with the Operation Permit Program

Topic	Number of Responses	Percentage of Total Responses
Record-Keeping, Monitoring, and Reporting Requirements	29	36.3%
Complexity of Application Materials	15	18.8
Costs of Compliance	10	12.5
Renewing Operation Permit	10	12.5
Costs Incurred While Obtaining Operation Permit	7	8.7
State-Only Permit Requirements	4	5.0
Emission Fees	3	3.7
Level of Detail in Permit	2	2.5

Twenty-six percent of respondents who included written comments cited the amount of time it takes DNR to issue an operation permit as a concern. Some respondents indicated they will incur additional costs and will have to rehire consultants to update applications they were required to submit from 1994 through 1998, because submitted information is often outdated by the time DNR begins its review.

Issuance of Operation Permits

As of June 2003, DNR had issued permits to just over one-half of facilities that applied.

As of June 30, 2003, DNR had issued operation permits to 50.8 percent of the 2,219 facilities that applied for operation permits. As shown in Table 13, permits were issued to 64.4 percent of the major facilities and 73.5 percent of the synthetic minor facilities, but only 8.2 percent of the state minor facilities. In total, the backlog was 1,091. The Clean Air Act allows facilities that have submitted a timely application for an operation permit to continue to operate while DNR processes the application. However, the extent of the backlog raises program management questions.

Table 13

Issuance of Operation Permits
As of June 30, 2003

Permit Type	Number of Facilities	Number of Permits Issued	Number of Facilities in Backlog	Percentage Issued
Synthetic Minor ¹	942	692	250	73.5%
Major	590	380	210	64.4
Minor	687	56	631	8.2
Total²	2,219	1,128	1,091	50.8

¹ Includes general operation permits.

² In addition, 52 permits were issued to facilities that are no longer in operation.

In 2002, facilities subject to state minor permits reported only 1.2 percent of total statewide pollutant emissions.

During the operation permit program's early years, DNR made a priority of issuing synthetic minor permits rather than major permits, because doing so reduced the number of facilities requiring major permits. State-mandated minor permits were not made a priority because there is no federally mandated deadline associated with them, and facilities requiring state minor permits typically report a small percentage of all pollutants emitted annually. In 2002, the state minor permit facilities reported only 1.2 percent of total air pollution emissions. 2003 Wisconsin Act 118 will likely reduce the number of facilities requiring state-mandated minor permits. DNR officials indicate they will defer issuing minor permits until work is completed on issuing major and synthetic minor permits.

DNR's Southeast Region has issued a smaller percentage of permits than other regions.

As shown in Table 14, DNR has issued major permits to 85.9 percent of major facilities in the South Central Region and 82.7 percent of major facilities in the Northeast Region, but only 41.7 percent of major facilities in the Southeast Region. According to DNR officials, the Southeast Region has fallen behind in issuing operation permits for several reasons:

- much of the region is a non-attainment area with additional permitting requirements;
- the region contains the largest number of facilities and has the greatest operation permit and compliance workload; and

- many facilities in the region are older and larger industrial sources that require more complex pollution-control solutions.

Table 14

**Major and Synthetic Minor Permits Issued to Facilities in Each Region
Through June 30, 2003**

Region	Major Permits		Synthetic Minor Permits ¹		Percentage of Major Permits Issued	Percentage of Synthetic Minor Permits Issued
	Number of Facilities	Number of Permits Issued	Number of Facilities	Number of Permits Issued		
South Central	92	79	148	91	85.9%	61.5%
Northeast	127	105	155	131	82.7	84.5
Northern	52	37	67	53	71.2	79.1
West Central	101	68	136	92	67.3	67.6
Southeast	218	91	209	104	41.7	49.8
Total	590	380	715	471	64.4	65.9

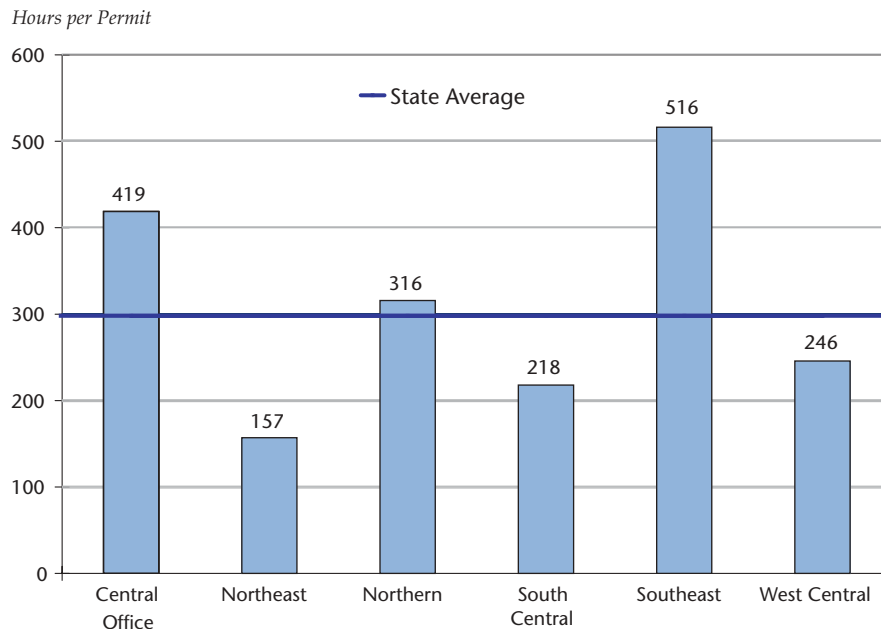
¹ Does not include general operation permits because they are not assigned to a region.

More time is spent on each permit in the Southeast Region than in other DNR regions.

We found that 35.5 percent of facilities in the Southeast Region require major permits, compared to only 23.2 percent in the rest of the state. Because major permits are generally more complicated than other permits, they represent additional workload that may contribute to the Southeast Region’s lag in issuing initial operation permits. We also found that, on average, permit engineers in the Southeast Region spend more time per permit than staff in other regions. As shown in Figure 8, the amount of time DNR spent working on initial operation permits averaged 298 hours statewide, and 516 hours in the Southeast Region.

Figure 8

**Average Number of Hours to Issue an Initial Operation Permit
(FY 1996-97 through FY 2002-03)**



According to DNR officials, the amount of time needed to issue a permit is affected by the completeness of a facility's application; the existence of outstanding construction permits; the complexity of the facility's operations; whether it is subject to hazardous air pollutant or technology-based pollution control requirements; and negotiating with the facility if computer models show that the facility does not meet air quality standards.

We reviewed DNR time-reporting data and found that the average number of hours per permit declined 41.8 percent statewide, from a high of 359 hours in FY 1997-98 to a low of 209 hours per permit in FY 2002-03. In the Southeast Region the average declined 43.9 percent in this period, from 583 hours to 327 hours per permit. DNR officials expect regional and statewide average permitting time to continue to decline because work has been completed on the initial permits for many of the largest and most complicated facilities.

Backlogs may hamper efforts to reduce emissions and achieve compliance with federal air quality standards.

If facilities that are waiting for operation permits do not install required pollution-control equipment prior to being issued a permit, the large backlog of permits in the Southeast Region may hamper the air management program's goal of reducing emissions to achieve compliance with federal air quality standards. Because facilities can continue to operate as long as they have applied for a permit, there is little incentive for them to request that DNR expedite processing of their initial operation permits. However, without a valid operation permit, DNR cannot ensure that a facility has implemented all of the necessary control technologies to limit pollution. Although 2003 Wisconsin Act 118 will likely reduce the number of facilities requiring operation permits, and thereby reduce DNR's workload, we believe that additional steps can be taken to address the permit application backlog.

☑ Recommendation

We recommend the Department of Natural Resources:

- *streamline permitting requirements for those minor air pollution sources that will continue to be required to obtain permits under recent revisions to state law; and*
- *assign additional permit engineers from other regions to work on issuing operation permits in the Southeast Region, to help eliminate the backlog.*

Deadlines for Operation Permit Issuance

Wisconsin is among the slowest states in the nation to issue major operation permits.

Under the federal Clean Air Act, the EPA gave interim approval to Wisconsin's permit program in March 1995, and DNR was to have issued all of the State's major operation permits no later than March 1998. However, as of June 30, 2003, only 64.4 percent of Wisconsin's major permits had been issued, and the State had the lowest issuance rate in Region 5, as shown in Table 15. Appendix 3 shows permit issuance rates nationally. Overall, 80.9 percent of major permits had been issued nationally. Only six states, the District of Columbia, and 26 local agencies had issued all of their major permits as of June 30, 2003.

Table 15

Major Permit Issuance Rates in EPA Region 5 States
As of June 30, 2003

State	Number of Facilities	Number of Permits Issued	Percentage of Permits Issued
Illinois	728	591	81.2%
Indiana	741	566	76.4
Michigan	470	401	85.3
Minnesota	336	243	72.3
Ohio	705	606	86.0
Wisconsin	590	380	64.4
Total	3,570	2,787	78.1

On December 16, 2002, DNR proposed a time line to the EPA for addressing the permit backlog. DNR proposed to prioritize its future permit work so that permits for facilities emitting at least 90 percent of the total criteria pollutants in Wisconsin would be issued by December 31, 2003. To achieve the 90 percent goal, DNR identified priority facilities based on their level of reported emissions, toxicity of emissions, and public interest in the permit. However, recognizing that this goal would not be achieved, DNR submitted a new proposal in October 2003. Under the new plan, DNR estimates it will finish work on outstanding major permits by January 2005. To achieve this goal, DNR managers intend to dedicate few resources to issuing synthetic minor and renewal permits. As a result, the backlog for synthetic minor permits will remain and the number of permits needing renewal will increase. In addition, there are currently no plans to address the backlog of state minor permits.

Factors Delaying Operation Permit Issuance

In response to growing concerns over delays in issuing operation permits nationwide, the EPA's Office of the Inspector General completed a review in March 2002 of state and local air pollution control agencies' progress in issuing operation permits. The Inspector General evaluated permitting programs in six selected states, including Wisconsin, to identify the reasons for the delays.

The Inspector General concluded that the initial issuance of major operation permits nationwide was delayed by:

- the need to develop laws and regulations and to train staff;
- the need to update information before permitting work could begin, because almost all applications were received within a short period of time and because permitting authorities could not issue permits as fast as applications were received;
- delays by the EPA in issuing program guidance; and
- prioritization of synthetic minor permits over major permits.

The Inspector General attributed ongoing delays in the issuance of operation permits to insufficient funding and staffing, overly complex regulations and limited guidance from EPA, competing state priorities, and the use of operation permit staff to issue construction permits.

We identified several factors that influence the amount of time DNR takes to issue operation permits in Wisconsin. First, because DNR received most operation permit applications from 1995 through 1997, it has often been necessary to request additional information from facilities because information in the application is outdated. DNR permit engineers have also indicated that many initial applications were incomplete and that the process has been delayed by requests for additional information from the applicant.

Public hearings can increase the time needed for permit issuance, but few permits require a hearing.

Second, public hearings—which may be requested by anyone— increase the time required to issue an operation permit. This occurs not only because the permit engineer must respond to comments made at public hearings before finalizing a permit, but also because the time spent preparing for and attending hearings reduces the amount of staff time available to work on other permits. Permit engineers have indicated that requests for public hearings occur more frequently in the South Central Region. They attribute this frequency to a more actively engaged public in this region. We were unable to verify that public hearings occur more frequently in the South Central Region because DNR was unable to provide reliable statistics on the number of permits that went through the formal hearing process. Nonetheless, DNR staff agreed that only a small

percentage of operation permits are taken to a formal public hearing. 2003 Wisconsin Act 118 limits public hearing requests to only those who may be affected by issuance of the permit.

Third, DNR and the regulated facilities often spend considerable time negotiating modeling results. Modeling is conducted to predict the effect a facility's emissions will have on air quality. These negotiations often result in modifications to operations, including the height of stacks or the use of raw materials, so the facility can meet air quality standards. Every iteration requires DNR modeling staff to re-run the models with the new parameters to verify that air quality standards will be met. From FY 1996-97 through FY 2002-03, DNR staff reported they spent an average of 2,923 hours per year on modeling for operation permits.

Other Region 5 states allow facilities to conduct their own modeling before submitting an application to the permitting agency. In most cases, officials verify modeling results without repeating the modeling analysis. In two Region 5 states, officials indicated that allowing a facility to conduct the modeling as part of the application reduces the amount of time spent reviewing permit applications and negotiating modeling results. In Illinois, the permitting authority established simplified modeling requirements for state-mandated permits.

Finally, several DNR permit engineers believe that DNR requires too much information in preliminary determinations and repeats much of the information found in a permit. A preliminary determination contains a comprehensive description of the facility, a discussion of air quality effects and modeling results, and a discussion of applicable federal and state air pollution control requirements. Some permit engineers believe they spend unnecessary time writing these documents and that the length of the permit could be reduced by eliminating the repetition of administrative code language. In addition, one survey respondent noted that its permit included 40 pages of redundant language that resulted in unnecessary complexity.

Recommendation

We recommend the Department of Natural Resources:

- *assess options that would reduce the amount of staff time spent on modeling, including allowing facilities to perform their own modeling, or eliminate modeling requirements for minor permits;*

- *evaluate the amount of information contained in permits and preliminary determinations, with the goal of eliminating duplicate calculations, reducing the repetition of administrative code language, and simplifying descriptive language that duplicates information found in the permit application; and*
- *encourage facilities to submit electronic permit applications, to facilitate accurate data entry into DNR's information systems.*

Deficiencies in Program Management

During our review, we identified several deficiencies with DNR's management of the operation permit program. These deficiencies have resulted in facilities failing to apply for the necessary permits and in DNR failing to issue completed operation permits.

Failing to Apply for an Operation Permit

We identified 71 facilities that DNR records indicate did not apply for required permits.

We identified 71 facilities that were required to apply for an operation permit under state and federal law but did not, according to DNR records. As a result, these facilities, which reported emitting approximately 1,100 tons of pollutants in 2002, may be emitting more pollutants than would have been allowed under a permit. In addition, both federal and state law provide that facilities failing to apply for permits could face substantial financial penalties or be closed and may not be afforded the immunity granted to facilities that have applied for permits. DNR officials could neither explain why these facilities had apparently never applied for permits or why DNR was unaware of this issue prior to our inquiries.

We also identified 24 facilities that had applied for operation permits but whose applications were not assigned to a permit engineer for processing or counted as facilities in need of a permit for federal and state reporting purposes, either because DNR failed to properly record applications in its permit database or because facilities never completed their applications. DNR officials were unable to explain how these failures occurred.

Finally, we identified 175 facilities that have not applied for permits but have reported emissions of regulated pollutants. While many of these facilities may be exempt from permitting requirements because their potential emissions do not exceed permitting thresholds, DNR was unable to provide documentation that verifies these facilities are exempt.

☑ Recommendation

We recommend the Department of Natural Resources:

- *verify which facilities have failed to submit permit applications as required and take appropriate action;*
- *determine which facilities have appropriately submitted applications but were not placed into the permitting process or assigned to a permit engineer; and*
- *document which facilities are exempt from permitting requirements, and the specific reasons for an exemption.*

Failing to Issue Operation Permits

DNR failed to issue 113 operation permits even though they had already gone through public comment.

Typically, DNR issues final operation permits shortly after the close of the public comment period. However, as of June 30, 2003, we identified 113 draft operation permits that DNR failed to issue after the public comment period had expired. Among these are 106 permits that had been backlogged for more than one year after the close of the public comment period.

DNR officials gave two primary reasons for the agency's failure to issue these permits. First, in some cases the responsible permit engineer had left DNR or switched jobs, and another permit engineer was not assigned to complete the permit. Second, before FY 2002-03, DNR credited engineers for issuing operation permits at the time permits went to public hearing, rather than when they were issued. The permit engineers favored this system; however, DNR's failure to follow up on credited but unissued permits demonstrates inadequate management of permit workload and permit tracking and suggests a need for improved communication between the regional permit engineers who prepare the permits and DNR's central office.

☑ Recommendation

We recommend the Department of Natural Resources:

- *review the 113 facilities whose permits have been through the public comment process, to determine whether the permits can be issued or whether additional work is needed because of the delay in issuing the final permit; and*

- *develop a procedure to track permits throughout the process, to ensure that permit engineers are held accountable for finalizing permits.*

Renewing Operation Permits

***As of June 30, 2003,
193 permit renewal
applications were
pending.***

Initial operation permits are typically valid for up to five years, and facilities must reapply to renew them. DNR began issuing operation permits in FY 1994-95, and the first permits expired five years later, beginning in FY 1999-2000. As shown in Table 16, DNR issued a total of 237 renewal permits from FY 1999-2000 through FY 2002-03 and had an additional 193 renewal applications pending as of June 30, 2003.

Table 16

Number of Renewal Permits and Applications Through June 30, 2003

Permit Type	Renewal Permits Issued	Renewal Applications Pending
Major	69	86
Synthetic Minor	154	94
Minor	14	13
Total	237	193

2003 Wisconsin Act 118 requires facilities to apply for renewal operation permits six months before their current permit's expiration. Previously, NR 407.04(2), Wis. Adm. Code, had required facilities to apply for renewal operation permits at least 12 but not more than 18 months before the initial operation permit expired. Permits issued before June 30, 1999, will expire no later than June 30, 2004, and these facilities should have submitted renewal applications by June 30, 2003.

As shown in Table 17, DNR has issued 237 of the 471 initial operation permits that will expire by June 30, 2004. As of June 30, 2003, 49 facilities (10.4 percent) had not submitted renewal applications as required, including 12 facilities whose initial operation permits expired before June 30, 2003, and which may be operating without a valid permit. Although some of these facilities may have closed or may no longer be emitting air pollution at a level

requiring a permit, DNR has not determined whether these 49 facilities are still required to obtain permits, and DNR staff could not explain why the facilities did not apply for renewal permits. DNR staff did not identify the need for renewal permits because DNR does not review its renewal permit backlog to ensure that all facilities have properly applied, but rather relies on facilities to apply for renewal permits and then adds them to the backlog.

Table 17

Status of Permits Expiring by June 30, 2004
As of June 30, 2003

Status	Number	Percentage
Renewal Permits Issued	237	50.3%
Pending Applications ¹	185	39.3
No Renewal Application Submitted	49	10.4
Total	471	100.0%

¹ Excludes 8 renewal applications for permits that expire after June 30, 2004.

At the time of our audit, DNR had not renewed any of the general operation permits that it issued, although all expired by June 30, 2003. As of that date, DNR reported 221 active facilities held general operation permits. Only 131 facilities had applied to renew their general operation permits, while 90 facilities had not reapplied. DNR officials have negotiated permit conditions with facilities, and most new general permits were issued on January 30, 2004. Under the changes enacted by 2003 Wisconsin Act 118, general permits will typically have no expiration date.

Recommendation

We recommend the Department of Natural Resources:

- *review the facilities that have not applied for renewal permits to determine whether they are required to submit renewal applications; and*
- *implement a procedure to ensure permit engineers notify facilities whose permits are due to expire, so facilities can submit appropriate renewal permit applications in a timely manner.*

Construction Permit Program ■

Facilities planning new, modified, reconstructed, relocated, or replaced air pollution sources are required to obtain construction permits.

Construction permits are designed to ensure that air quality is not significantly degraded by new or modified sources of air pollution and that facilities install required pollution controls. In Wisconsin, facilities planning new, modified, reconstructed, relocated, or replaced air pollution sources are required to obtain these permits before they begin either new construction or modification projects. Routine maintenance, repair, and replacement projects are exempted from construction permitting requirements.

Statutes and administrative rules require DNR to issue construction permits within specified time limits. Although DNR has generally met these standards, it has substantial control over when the time period for meeting the standard begins. Moreover, DNR does not adequately track the time taken to issue permits. In addition, we found 29.2 percent of applications pending as of June 30, 2003, had been backlogged for at least two years. Although the Legislature has recently made a number of changes to simplify and shorten the permitting process, options are available for further streamlining.

Purpose of Construction Permits

Regulatory requirements associated with construction permits were established by the 1977 Clean Air Act Amendments and have been subsequently modified. Construction permits are issued as part of a pre-construction permitting program, known as new source review. Construction permits differ from operation permits in that they are

written specifically for the construction of a new facility or the modification of an existing facility and typically include only a portion of a facility's overall operations. In general, construction permits allow a facility to build, initially operate, and test the new pollution source for up to 18 months.

Construction permits vary widely in their scope and complexity, based on the type of project or modification being proposed. As with operation permits, construction permits are classified as major and minor. The type of construction permit required is based on emissions type, the amount of potential emissions, and whether a facility is located within an attainment or a non-attainment area.

Major construction permits are more complex, have more requirements, and have generally taken longer for DNR staff to complete than minor permits. 2003 Wisconsin Act 118, which took effect in February 2004, establishes new operation and construction permitting options, including:

- pre-construction permit waivers;
- mandatory exemption of minor sources that do not present a significant hazard to public health or the environment;
- more opportunities to qualify for general permits; and
- a new, simplified registration permit for some facilities with low emissions.

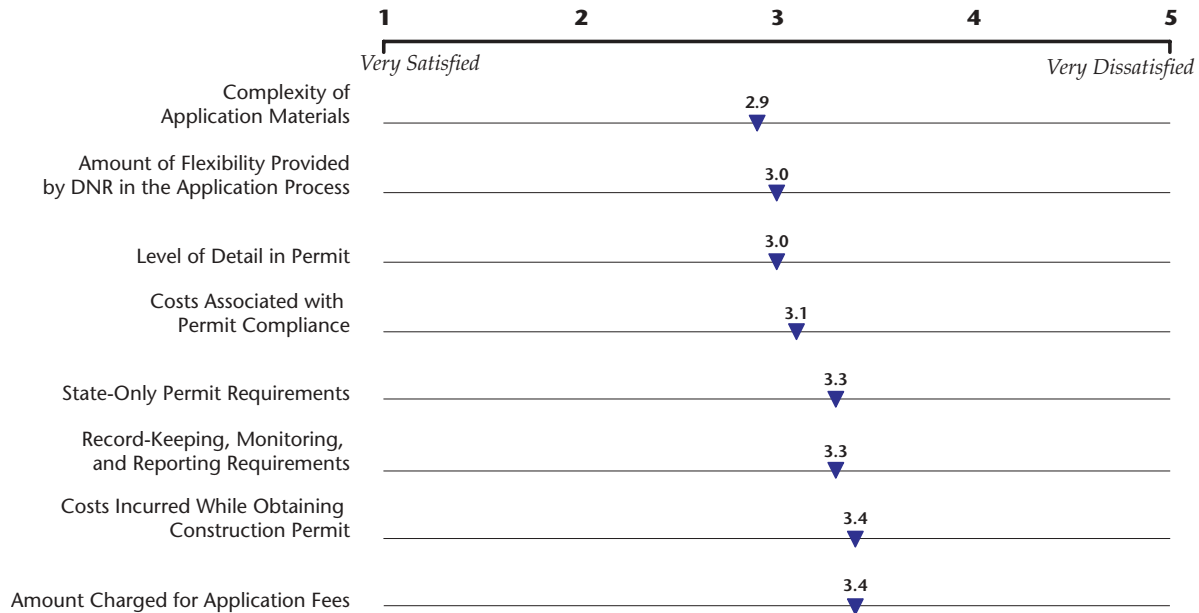
Satisfaction with the Construction Permit Program

Regulated facilities were slightly dissatisfied with DNR's construction permitting program.

To assess regulated facilities' satisfaction with DNR's construction permit program, our survey of randomly selected facilities addressed the eight topics shown in Figure 9. Forty-one of 81 respondents indicated they had applied for a construction permit. Overall, the average level of satisfaction was 3.1, which indicates that responding regulated facilities were slightly more dissatisfied than satisfied with DNR's construction permitting process. The highest level of satisfaction was with the complexity of application materials. The regulated facilities were least satisfied with costs incurred while obtaining a construction permit and the amount charged for application fees.

Figure 9

Regulated Facilities' Satisfaction with the Construction Permit Program



Scale: 1 = "Very Satisfied;" 2 = "Satisfied;" 3 = "Satisfied with Some Aspects but Dissatisfied with Others;" 4 = "Dissatisfied;" and 5 = "Very Dissatisfied."

In addition to asking regulated facilities about their level of satisfaction with topics related to the construction permit program, we also asked facilities to identify a single topic of greatest concern. Forty-one percent of respondents identified record-keeping, monitoring, and reporting requirements. One respondent whose company has facilities in seven other states believes Wisconsin's air permits have the most detailed record-keeping and monitoring requirements.

As shown in Table 18, respondents were least concerned about the level of detail in construction permits and about state-only permit requirements.

Table 18

Regulated Facilities' Topic of Greatest Concern Related to the Construction Permit Program

Topic	Number of Responses	Percentage of Total Responses
Record-Keeping, Monitoring, and Reporting Requirements	16	41.0%
Costs Incurred While Obtaining Construction Permit	7	17.9
Complexity of Application Materials	6	15.4
Amount Charged for Application Fees	5	12.8
Costs Associated with Permit Compliance	3	7.7
Level of Detail in Permit	1	2.6
State-Only Permit Requirements	1	2.6

Permit Issuance Workload

DNR's construction permit workload varies from year to year.

DNR's construction permit workload varies from year to year depending on the number of applications received. Economic factors play a role in workload, because as industry expands, DNR receives more applications. Conversely, fewer facilities apply for construction permits during economic downturns.

As shown in Table 19, DNR issued 148 major and 1,713 minor construction permits from FY 1994-95 through FY 2002-03. On average, 16 major construction permits and 190 minor construction permits were issued each year.

As of June 30, 2003, 29.2 percent of pending permits had been backlogged for at least two years.

As shown in Table 20, 137 construction permit applications were pending as of June 30, 2003, including 70 received in the prior 12 months and 13 received more than three years ago. Overall, 40 construction permits, or 29.2 percent of all construction permits pending, have been backlogged for at least two years.

Table 19

Construction Permits Issued

Fiscal Year	Major Permits	Minor Permits	Total
1994-95	10	161	171
1995-96	7	155	162
1996-97	10	184	194
1997-98	12	168	180
1998-99	23	191	214
1999-2000	18	257	275
2000-01	25	201	226
2001-02	15	219	234
2002-03	28	177	205
Total	148	1,713	1,861

Table 20

Pending Construction Permits
As of June 30, 2003

Time Elapsed Since Application Receipt	Number of Applications	Percentage of Applications
180 days or less	50	36.5%
181 days to 1 year	20	14.6
1 to 2 years	27	19.7
2 to 3 years	27	19.7
More than 3 years	13	9.5
Total	137	100.0%

DNR officials indicate there are two primary reasons for construction permits to remain backlogged for several years:

- Some facilities submit applications covering projects that may be undertaken in the future, are not ready to begin construction at the time they submit an application, and may request that DNR postpone its review.
- Applicants seeking to construct new electricity generating facilities often submit preliminary applications so that they can begin the process of obtaining other necessary approvals, including review and approval by the Public Service Commission, but request a postponement to the construction permit process. We found that 31 of the 137 pending construction permits were for electricity generating facilities, including 20 that had been backlogged for over one year.

Timeliness of Permit Issuance

36.6 percent of survey respondents reported their projects were delayed as a result of DNR actions.

One of the industry's primary complaints about Wisconsin's construction permit program is that DNR takes too long to process applications. As part of our survey of regulated facilities, we asked if the amount of time that DNR took to process a construction permit application delayed the project's completion. Of the 41 respondents who reported experience with the construction permitting process, 15, or 36.6 percent, indicated that completion of their projects had been delayed as a result of the time DNR took to process construction permit applications. In addition, 16 respondents, or 39.0 percent, believed DNR processing time increased their projects' costs. The most common costs cited by facilities were loss of sales or loss of market share, but few respondents attempted to quantify costs.

Statutory Timeliness Requirements

Chapter 285, Wis. Stats., requires DNR to complete the construction permit review process within specific time frames. Recognizing differences in permit complexity, statutes allow for longer periods of time to process major construction permits. They also allow more time to complete permits for which public hearings are held. As shown in Table 21, until the February 2004 enactment of 2003 Wisconsin Act 118, statutes allowed up to 210 days to process a major construction permit without a public hearing, and 270 days to process a major construction permit when a public hearing is held. For minor construction permits, DNR is required to complete work within 120 days if no public hearing is held and within 180 days if a hearing is held.

2003 Wisconsin Act 118 shortened major construction permit processing deadlines by 30 days.

2003 Wisconsin Act 118 reduced by 30 days the amount of time permitted for processing major construction permits. DNR now has 240 days for processing a major permit when a hearing is held, and 180 days if no hearing is held.

Table 21

Statutory Time Limits for Issuing Construction Permits
(Number of Calendar Days from Previous Milestone)

Requirement	Previous Major Permit	Current Major Permit ¹	Minor Permit
Days for DNR to Issue Preliminary Determination	120 days	90 days	30 days
Public Comment Period:			
If No Hearing Is Held	30 days	30 days	30 days
If a Hearing Is Held	90 days	90 days	90 days
DNR Approves or Denies Permit	60 days	60 days	60 days
Total Time to Process Permit (No Hearing)	210 days	180 days	120 days
Total Time to Process Permit (Hearing)	270 days	240 days	180 days

¹ Represents time changes made by 2003 Wisconsin Act 118, which took effect in February 2004.

The statutory clock does not begin until DNR deems the application to be complete. Some industry groups have questioned whether this date should be used as the starting point in establishing the time to issuance, because DNR has substantial flexibility in determining when an application is deemed complete. DNR has 20 days from the date an application is received to notify the applicant whether its application is complete or to request additional information. However, we found DNR often did not request additional information in writing, making it difficult to verify compliance with this deadline. Furthermore, DNR lacks clear guidelines for determining when an application was complete.

2003 Wisconsin Act 118 now requires DNR to request additional information in writing within 20 days after receiving an application. After receiving additional information, DNR must notify a facility within 15 days of receiving that additional information whether the response satisfies DNR's request. If DNR does not request specific additional information, the application is automatically deemed complete.

Wisconsin's timeliness standards are generally consistent with other midwestern states.'

Although unique permitting requirements in each state make direct comparisons difficult, we found that Wisconsin's timeliness standards are generally consistent with those in other Region 5 states. There is, however, significant variation in the number of days states allow for issuing permits.

The amount of time allowed for processing construction permits varies among states.'

Table 22 presents timeliness standards as a range because they differ depending on whether a public hearing or public comment period is required. For example, Michigan law requires both minor and major permits to be issued the most quickly, but it is important to note that its 60- to 120-day clock does not start until the permitting authority deems the application complete, and the clock is stopped while the permitting authority waits for additional information requested of the applicant.

Generally, Ohio allows the most days to issue minor or similar permits: 180 to 240 days from the time an application is deemed complete by the permitting authority. For permits similar to Wisconsin's major permits, Minnesota allows the most time: 425 to 545 days from the time the application is deemed complete from the permitting authority. In addition, the Minnesota permitting authority may stop the clock until requested information is provided if the applicant does not provide it within 30 days.

Table 22

EPA Region 5 States' Construction Permit Timeliness Standards

State	Days Allowed for Permits Similar to Wisconsin's Minor Construction Permit	Days Allowed for Permits Similar to Wisconsin's Major Construction Permit
Illinois ¹	90 to 180	90 to 180
Indiana ²	120 to 165	270 to 315
Michigan ³	60 to 120	60 to 120
Minnesota ⁴	90 to 120; 240 to 270	425 to 545
Ohio ⁵	180 to 240	180 to 240
Wisconsin	120 to 180	180 to 240

¹ Illinois may request additional information from an applicant within the first 30 days, and the clock starts over when the requested information is received.

² Indiana may ask for additional information from an applicant, and the clock stops when the additional information is requested and does not start again until the requested information is received. Indiana may request information and stop the clock multiple times.

³ In Michigan the clock does not start until an application is deemed complete. The clock stops when Michigan requests additional information from an applicant and does not start again until the requested information is received.

⁴ In Minnesota the clock does not start until an application is deemed complete and may be stopped for the number of days beyond 30 that it takes an applicant to provide additional requested information. Minnesota has two types of permits that are similar to Wisconsin's minor permits.

⁵ In Ohio the clock does not start until an application is deemed complete, and Ohio has 60 days to deem an application complete or request additional information.

Only two of the other Region 5 states were able to provide us with data that demonstrated their performance in meeting timeliness goals. In 2002, Indiana reported that the median number of calendar days between receipt of an application and permit issuance was 137 for permits similar to Wisconsin's minor permit, and 227 for permits similar to Wisconsin's major permit. An official with the Illinois permitting authority stated that all minor construction permits in that state are issued within 90 days, while major or similar permits generally take between 12 and 18 months for new facilities. The Illinois official noted that it generally takes Illinois between two and three years to process an application for a new coal power plant. This same official also told us that although Illinois law allows only 180 days to issue a permit, the permitting authority routinely tells facilities that their permits will be denied unless they grant the state extra time.

Because very few EPA Region 5 states provided us with timeliness information, we looked for other reliable information. An EPA review of major permits issued nationally from 1997 through 2001

found that it took an average of 7.2 months for states to process the permits, measured from the receipt of a complete application. In June 2002, the Idaho State Legislature's Office of Performance Evaluations issued a report addressing the time Idaho's air quality permitting agency takes to issue construction permits. While Idaho is not a neighboring state and has far fewer facilities that require construction permits than Wisconsin does, the report represents the most accurate and reliable information we were able to obtain about time taken to issue construction permits in another state.

In Idaho, the permitting agency has 30 days to determine if a construction permit application is complete. Once an application is complete, the agency has 60 days to issue a draft permit, notify the applicant of the permit's approval or denial, or issue a proposed permit for public comment. Idaho's rules allow for a 30-day public comment period. Idaho's Office of Performance Evaluations found that the permitting agency exceeded the 60-day deadline for 45 percent of construction permit applications between FY 1998-99 and FY 2001-02. In addition, it found that the average number of days to issue construction permits increased from 91 days in FY 1998-99 to 139 days in FY 2000-01.

We attempted to evaluate DNR's performance in meeting Wisconsin's statutory timeliness requirements using information from DNR's permit tracking database, but we were unable to do so because DNR does not consistently or accurately track all important permit milestones. Therefore, to assess DNR's timeliness in issuing construction permits, we randomly selected 120 construction permit applications. We were able to test only 88 of the 120 applications for several reasons:

- 13 applicants were determined to be exempt from permitting;
- 11 were special types of construction permits, such as permits issued after completion of a project;
- 6 records were missing information needed to verify permit processing milestones; and
- 2 applications were withdrawn prior to permit issuance.

DNR met the statutory deadline for 86.4 percent of the construction permits we tested.

Of the remaining 88 applications used in our analysis, we found that DNR met the statutory deadline for 76, or 86.4 percent. The median time to issue a permit from the date DNR deemed an application complete was 53 days; the time ranged from a low of 34 days to a high of 731 days.

DNR has substantial control over the starting point for measuring statutory timeline compliance.

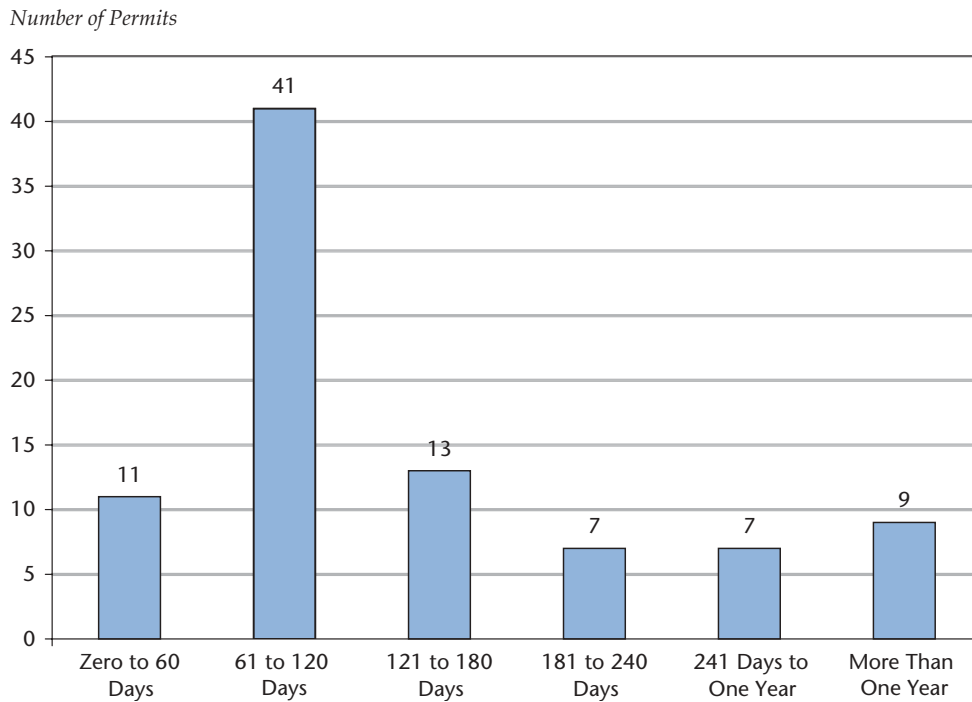
As noted, DNR has substantial flexibility in determining the date an application is deemed complete. To address this issue, we analyzed DNR’s median time to deem an application complete for the 88 permits we reviewed. We found it took 40.5 days, and ranged from a low of less than 1 day to a high of 1,084 days. According to DNR staff, most facilities respond quickly to additional information requests because applicants are interested in obtaining their permits as quickly as possible. DNR indicated that when a facility does not need the permit immediately, there is often a longer delay between the date an application is received and when it is deemed complete because the facility has chosen not to respond to additional information requests from DNR.

DNR’s median processing time was 103.5 days from the date an application was received.

In an effort to provide an alternative measure of how long it takes DNR to issue construction permits, we also analyzed the time taken to issue permits from the dates applications were received. For the 88 permits we reviewed, the median time was 103.5 days. As shown in Figure 10, 52 of the 88 permits we reviewed were issued within 120 days, but 36 took longer than 120 days, including 9 that took longer than one year.

Figure 10

**Time Elapsed from Application Received Date to Permit Issued Date
For 88 Construction Permits Reviewed**



Because timeliness is of great concern to regulated industries, we more closely reviewed the nine permits that took more than one year and contacted the facilities involved. We found unique circumstances in all nine cases. For example:

- In one case DNR lost the original application, but a facility representative also attributed the delay, in part, to the facility's consultant's failure to follow up on the application.
- One facility decided not to implement all changes approved under an earlier construction permit. This facility applied for a new construction permit so that it could document the changes that actually were made and avoid major-source hazardous air pollution requirements in its forthcoming operation permit. Since this facility was already constructed and operating, the delay did not affect its operations.
- One facility applied for a new electricity generating plant that was delayed until the project received the necessary environmental impact statements and approvals from the Public Service Commission.
- One facility requested that DNR refrain from processing one of its applications in favor of processing other applications for different modifications that were pending.
- One facility's construction permit was delayed due to air quality violations caused by a non-affiliated facility located nearby, as well as its own substantial changes to the application during DNR's review. Because the construction permit program prevents DNR from issuing a permit that will cause or exacerbate a preexisting air quality problem, the permit could not be issued until the air quality problem from the other facility was resolved.

Expedited Review

For an additional fee, DNR will expedite construction permit processing.

To expedite review of construction permit applications, applicants can pay an additional fee. For an additional \$2,650, DNR will process a minor construction permit application within 50 days; for an additional \$4,000, DNR will process a major construction permit

application within 60 days. Of the 1,861 construction permits issued from FY 1994-95 through FY-2002-03, 57.4 percent requested an expedited review. DNR officials have stated that applicants that request an expedited review do not “bump” other pending applications because DNR staff review expedited applications using overtime.

Because applicants are billed when permits are finalized, DNR charges the expedited review fee only if it meets the deadlines. In our review of 88 construction permits, we found that 48 applicants requested an expedited review: 41 for minor permits and 7 for major permits. DNR met the deadline for 34 of these applications: 28 for minor permits and 6 for major permits. For the 14 cases in which DNR did not meet the deadline, it did not charge the expedited rate for 6 permits. The expedited rate was charged for the remaining eight permits because delays were caused by applicants’ failures to publish public notices of the 30-day comment period in a timely fashion.

Our review highlights a potential problem with the expedited review process. Current regulations allow the applicant, rather than DNR, to have responsibility for publishing the required notice in a local newspaper, because in most cases the applicant can submit the required information to a local newspaper faster than DNR can. DNR encourages this practice with a \$150 credit for applicants that publish their own notices. However, if an applicant fails to publish the notice in a timely fashion after DNR has completed its review, issuance of the final permit can be delayed, resulting in a failure to meet the expedited review deadline.

Recommendation

We recommend the Department of Natural Resources revise its expedited review process in order to avoid situations where delays caused by the applicant hinder DNR’s ability to meet expedited review deadlines.

For example, once DNR issues the draft permit, the clock should stop until the applicant publishes a public notice, at which point the 30-day comment period could begin.

Permit Streamlining

As noted, 2003 Wisconsin Act 118 recently made several changes to streamline and shorten the construction permitting process. In addition, in June 2003 DNR announced its intention to streamline the permitting process. The streamlining initiative includes a

proposed two-year effort to study both the construction and the operation permitting processes and to develop solutions to reduce permit backlogs, improve permitting efficiency, and provide more regulatory certainty to applicants.

DNR has not implemented permit streamlining recommendations developed by its own workgroup.

Efforts to streamline the permitting process are not new. In August 1998, DNR convened a group of agency staff and industry representatives to identify ways of improving the permitting process. In January 1999, this workgroup issued a report. Although DNR implemented some of the group's recommendations, including making permit review documents available over the Internet and developing an electronic application system to make data entry into DNR's permit tracking database more efficient, many recommendations were not implemented.

DNR has not implemented its workgroup recommendations for:

- improving communication by designating one DNR staff person in each region as the regional permit coordinator, to answer external questions and to coordinate policy changes with other regions and the central office;
- simplifying the application process by reducing the number of forms required (currently as many as 36), developing forms targeted to small businesses and specific industrial sectors, and eliminating unnecessary and redundant information from the forms;
- providing computer software to assist applicants with correctly estimating pollutant emissions and performing other calculations;
- providing better instructions for completing the application forms;
- developing a checklist so that applicants can easily determine which portions of the application packet are required for their projects;
- allowing applicants or their consultants—rather than DNR staff—to complete the required air quality modeling; and

- streamlining and shortening the length of the draft permit and the preliminary determination document by referencing, rather than repeating, administrative rule requirements; eliminating repetition of compliance and demonstration methods; and avoiding repetition of information in the permit that can be found in the preliminary determination.

A number of recommendations put forward by DNR's workgroup have been incorporated into the new requirements established by 2003 Wisconsin Act 118. However, reconsideration of others could further streamline DNR's permitting process.

Recommendation

We recommend, as part of its current air permit improvement initiative, the Department of Natural Resource re-evaluate the potential of implementing streamlining recommendations made by its 1998 workgroup.

■ ■ ■ ■

Enforcement Efforts ■

Adequate enforcement is important to ensuring the integrity of the State's air management programs.

Overly aggressive enforcement of program rules and regulations may be viewed as unnecessarily burdensome by regulated industries and could have a negative effect on the business climate. However, adequate enforcement is important to ensuring the integrity of the State's air management programs. We found the number of facilities inspected by DNR has generally declined in recent years, and some facilities have never been inspected. DNR is not consistently meeting federally established goals for processing high-priority violations in a timely fashion. In addition, DNR does not follow its own policies regarding enforcement against facilities that apply for construction permits after work is already complete, or against facilities that do not submit timely compliance certifications.

Compliance Process

DNR staff conduct on-site inspections, review annual compliance certifications and emission inventory reports submitted by facilities, assess quarterly monitoring reports from specific pollution sources, observe stack tests, and respond to citizen complaints about air pollution.

If DNR compliance staff detect evidence of possible violations, they can initiate enforcement action, which may include:

- issuing a letter of inquiry, which seeks additional data in order to determine whether a facility is out of compliance;

- issuing a letter of non-compliance, which provides notice that DNR staff believe a facility is out of compliance with specific rules and regulations and that corrective action is necessary;
- issuing a notice of violation, which provides written notice of a compliance concern that has gone uncorrected, describes the specific violation, notes the potential penalties, and requires the facility to respond in writing or to meet with DNR officials; or
- referring the case to the Wisconsin Department of Justice (DOJ) for prosecution, which may be done initially in the case of a very serious violation, or after failure to gain compliance through the other enforcement methods.

Table 23 shows the number and type of enforcement actions DNR has taken each year since FY 1999-2000. DNR officials attribute the decrease in letters of non-compliance to changes in federal policy requiring more serious enforcement actions when violations are identified, which they indicate also accounts for the increase in notices of violation. The number of cases referred to DOJ has been fairly consistent, ranging from 17 to 20 annually. The cases referred range from alleged violations at a county-owned asphalt plant that failed to test its pollution-control equipment to excess emissions from a scrap metal furnace. The large civil penalty collected in FY 2001-02 is largely the result of two judgments, totaling \$1.5 million, levied against an oil refinery in Superior that failed to obtain a required construction permit.

Table 23

DNR Air Management Enforcement Actions

Action	FY 1999-2000	FY 2000-01	FY 2001-02	FY 2002-03
Letter of Non-Compliance	146	144	116	70
Notice of Violation	108	109	100	171
Referrals to DOJ	18	20	17	20
Civil Penalties Collected	\$977,500	\$393,000	\$2,833,800	\$773,700

Compliance Inspections

The number of facilities DNR inspected declined 41.3 percent from FY 1994-95 to FY 2002-03.

As shown in Table 24, the number of facilities DNR inspects annually has generally declined over time, from 470 in FY 1994-95 to 276 in FY 2002-03. DNR officials indicate this 41.3 percent decline likely reflects a declining number of compliance staff. However, available staffing data suggest that more time has been spent on compliance and inspections in recent years than in the past. In FY 1997-98, DNR staff reported spending 23,715 hours on compliance and inspection work. In FY 2002-03, this increased to 27,464 hours, an increase of 15.8 percent.

Table 24

Number of DNR Air Management Inspections

Fiscal Year	Number of Inspections	Percentage Change
1994-95	470	–
1995-96	455	(3.2)%
1996-97	300	(34.1)
1997-98	365	21.7
1998-99	280	(23.3)
1999-2000	240	(14.3)
2000-01	275	14.6
2001-02	282	2.5
2002-03	276	(2.1)

DNR records indicate that 10.0 percent of major facilities and 19.7 percent of synthetic minor facilities have not been inspected.

In addition, DNR data indicate that many facilities have never been inspected. As shown in Table 25, 173 facilities, including 10.0 percent of major facilities and 19.7 percent of synthetic minor facilities, had no record of an inspection as of June 30, 2003. The West Central Region had the greatest percentage of uninspected major facilities, 15.3 percent, and the Northern Region had the greatest percentage of uninspected synthetic minor facilities, 35.8 percent.

Table 25

**Facilities that Have Never Been Inspected
Through June 30, 2003**

Region	Number of Facilities ¹	Number of Facilities with No Inspections	Percentage of Facilities with No Inspections
Major Facilities			
Northeastern	118	11	9.3%
Northern	46	6	13.0
South Central	85	8	9.4
Southeastern	218	17	7.8
West Central	98	15	15.3
Portable ²	3	0	0.0
Subtotal	568	57	10.0
Synthetic Minor Facilities			
Northeastern	135	20	14.8
Northern	53	19	35.8
South Central	117	25	21.4
Southeastern	141	18	12.8
West Central	80	13	16.3
Portable ²	62	21	33.9
Subtotal	588	116	19.7
Total	1,156	173	15.0

¹ Represents facilities that DNR has reported to the EPA as needing to be inspected.

² Represents road building machinery that can be moved throughout the state.

Although good management practices suggest that facilities should be inspected on a regular basis, it was not until April 2001, when the EPA issued a new policy in an effort to establish national consistency in inspection procedures, that DNR began developing a plan to conduct regular inspections. The EPA policy:

- created a new standard for inspections known as full compliance evaluations, which includes a review of all existing reports and on-site logs,

assessment of control devices, observation of visible emissions, and stack testing to determine compliance with emission limits;

- mandated that states identify all major and synthetic minor facilities that require full compliance evaluations and designate which facilities will be inspected each year; and
- established a goal that all major facilities receive full compliance evaluations every two years and that all synthetic minor facilities receive full compliance evaluations once every five years, unless the state develops an alternative policy that is approved by the EPA.

In FY 2003-04, DNR plans to inspect 245 facilities, which is fewer than in any year in the past nine except FY 1999-2000. DNR will not meet the federal goal of inspecting all major facilities every two years and all synthetic minor facilities every five years. Instead, DNR implemented an EPA-approved alternative strategy whereby it plans to inspect all federally permitted facilities on a five-year cycle, except for 100 “high-ranked” facilities, which will be inspected every two years. These high-ranked facilities will be determined by criteria developed by DNR, including reported emissions, the type of hazardous air pollutants, and the population of the county in which the facility is located. This ranking was first completed in spring 2003, and it will be repeated every two years to reflect updated emission data.

Whether DNR’s regional offices will adhere to the agency’s statewide inspection plan remains unclear. For example, 72 of the 276 inspections in FY 2002-03 were facilities chosen independently by regional offices, which may or may not reflect DNR’s programmatic goals. Moreover, 4 of the 245 facilities for which inspections are scheduled in FY 2003-04 were not included in DNR’s spring 2003 ranking process but were added independently by the South Central regional office, and 8 Northern Region facilities will be added by the regional office based on citizen complaints. DNR officials told us that they have no plans to periodically review their compliance database to determine if regional offices are actually inspecting the planned facilities, or to require regional supervisors to communicate changes in inspection plans to central office personnel. DNR managers indicate the only goal they have for regional offices is to inspect a number of facilities equal to the number each office committed to inspecting for FY 2002-03.

☑ Recommendation

We recommend the Department of Natural Resources:

- *develop a plan to ensure all facilities that have never been inspected are given a higher priority in future years;*
- *require changes in the list of facilities to be inspected in each region to be reviewed and approved by central office personnel, to better ensure that statewide priority facilities are inspected in a timely fashion; and*
- *regularly monitor and report on the progress of each regional office in completing its specific facility inspection goals throughout the fiscal year.*

High-Priority Violations

In December 1998, the EPA issued a policy directing state and local pollution control agencies, including DNR, to identify high-priority violation cases that met certain criteria, such as a violation of allowable emission limits during a stack test, and to issue appropriate enforcement actions in a timely fashion. This policy specifies that, starting in 1999, all high-priority cases should be issued a notice of violation within 60 days and be resolved within 270 days, either by the facility returning to compliance status or by referral to DOJ.

From FY 1998-99 through FY 2002-03, DNR identified 134 high-priority violations and pursued enforcement actions in 125 cases, including violations by a metalworking company that failed to perform a stack test; a state agency with excessive pollution from a coal-fired furnace; and a woodworking company that did not control vapors from a varnishing tank. The EPA took the lead in the remaining nine cases, as allowed by federal law. We spoke to EPA Region 5 officials who indicated that their assumption of leadership in these cases did not reflect any general concerns about the enforcement efforts of DNR, but were case-specific decisions often related to the familiarity of federal staff with these specific facilities.

DNR is not consistently meeting federal goals for addressing high-priority violations.

As shown in Table 26, through FY 2002-03 DNR met the 60-day guideline in only 76 of 125 cases. Moreover, in five cases DNR never issued a notice of violation to the facility, as required by the policy.

Table 26

Timeliness of Enforcement for High-Priority Violations

Fiscal Year	Number of Cases	Number of Cases in Which a Notice Was Issued in 60 days	Percentage of Cases Meeting the 60-Day Deadline
1998-99	4	0	0.0%
1999-2000	36	24	66.7
2000-01	29	20	69.0
2001-02	30	14	46.7
2002-03	26	18	69.2
Total	125	76	60.8

For more than half of the high-priority violations, DNR has also failed to meet the federal guideline to resolve the case within 270 days. As shown on Table 27, DNR met the 270-day standard in only 41 of 110 cases resolved between FY 1998-99 and FY 2002-03.

Table 27

High-Priority Cases Resolved by DNR

Fiscal Year	Total Number of Resolved Cases	Number of Cases Resolved Within 270 Days	Percentage Resolved Within Deadline
1998-99	4	1	25.0%
1999-2000	36	15	41.7
2000-01	29	7	24.1
2001-02	30	12	40.0
2002-03 ¹	11	6	54.5
Total	110	41	37.3

¹ Fifteen cases started in FY 2002-03 have been open for less than 270 days and, therefore, are not subject to the 270-day closure standard.

DNR has neither tracked its timeliness nor developed an alternative standard for tracking violations.

DNR's memorandum of understanding with EPA Region 5 requires that high-priority violation cases be processed in accordance with federal timeliness standards. However, DNR does not track its timeliness in meeting this standard and has not developed an alternative standard to assess whether air pollution cases are processed in a timely fashion to ensure public health.

☑ Recommendation

We recommend the Department of Natural Resources comply with federal policy and develop procedures to track, on a case-by-case basis, compliance with the 60-day notice of violation and 270-day resolution standards.

DNR Management Guidance on Enforcement Cases

In response to federal requirements, NR 439.03(1)(c), Wis. Adm. Code, requires that all facilities holding air operation permits submit annual statements to DNR certifying that they are in compliance with the terms of their permit. This compliance certification report must describe any deviations from permit provisions, such as excess emissions, and must be signed by a responsible official, such as the company's president. In June 2002, DNR issued guidance to its enforcement and air management compliance staff, directing them to issue a notice of violation to any major or synthetic minor facility that is more than 60 days late in submitting its annual compliance report. The guidance also notes that facilities with major permits that fail to submit a compliance certification report within 60 days of its due date should be pursued as high-priority violations. However, DNR officials have indicated both that they do not keep accurate records of the number of instances in which compliance reports are submitted 60 or more days late and that central office compliance management personnel make no effort to ensure that facilities submitting these late reports are issued notices of violation as required.

DNR is not consistently enforcing its requirement that facilities submit annual compliance reports.

As shown in Table 28, a total of 787 compliance reports were to have been submitted from June 2002 through June 2003, and a total of 527, or 67.0 percent of these reports, were submitted within 60 days of their due date, as required by the policy. However, 93, or 11.8 percent of these reports, were submitted between 61 and 119 days of the due date, and 167, or 21.2 percent, were submitted 120 days or more after the due date. Based on the June 2002 policy, a total of 260 facilities should have been issued a notice of violation for untimely certification reporting. However, DNR's compliance database indicates that since June 2002, only ten facilities have been issued a notice of violation for late certification reporting. DNR officials argue that their data do not accurately document

compliance certification submission, because dates entered reflect when DNR’s central office, rather than a regional office, receives the certification report. However, this is DNR’s best available information. Therefore, either DNR is failing to determine if facilities are in violation of the compliance reporting requirement or it is failing to issue a notice of violation against facilities that have not submitted their reports in a timely manner.

Table 28

Compliance Certification Reporting
 Since New Policy Was Issued in June 2002, through June 2003

Days After Deadline that Reports Were Submitted	Number	Percentage
120 or More Days	167	21.2%
Between 61 and 119 Days	93	11.8
Within 60 Days	527	67.0
Total	787	100.0%

☑ Recommendation

We recommend the Department of Natural Resources implement procedures to more accurately track compliance certification submission dates and that it consistently follow its enforcement policy regarding timeliness of compliance certification reports.

DNR cannot verify that enforcement actions are initiated for after-the-fact construction permits.

A March 2003 DNR policy directs DNR staff to initiate enforcement actions against facilities that apply for construction permits after they have already completed construction or modification projects. While DNR still issues these “after-the-fact” construction permits, it cannot ensure that a project will meet air quality standards or that appropriate controls are in place prior to completion of its review. Furthermore, we found DNR cannot verify if its regional offices are complying with this directive, which requires that:

- all major and synthetic minor facilities that are issued an after-the-fact permit receive a notice of violation if the pollutants affected by the project qualify the facility as a major source of pollutants (such cases are also subject to high-priority violation provisions);

- facilities holding state-mandated minor permits and receiving an after-the-fact permit be issued a letter of non-compliance; and
- most major and synthetic minor facilities receiving an after-the-fact permit be referred to DOJ for enforcement.

Some have expressed concern that unless after-the-fact permits are accompanied by enforcement actions, there is little incentive for facilities to comply with the pre-construction permitting requirement. DNR does not maintain a database that accurately identifies when facilities are issued after-the-fact permits. For example, when we performed the file review of 120 construction permits, we found that only 3 were identified as after-the-fact in DNR's database. After reviewing the files, we identified an additional seven after-the-fact permits, for a total of ten, or 8.3 percent of the files in our sample. In addition, DNR has neither investigated whether regional compliance staff are notified when after-the-fact permits are issued nor made clear efforts to ensure that the mandated compliance actions are issued.

Given that the after-the-fact permit directive was issued only recently, we could not verify if its provisions are being implemented. However, compliance personnel we spoke to in regional offices provided anecdotal evidence that this policy is not being enforced. For example, a compliance engineer in DNR's Northeast Region does not follow the directive because he believes that a notice of violation should be issued for after-the-fact permits only if the facility concerned is in a non-attainment area. A Southeast Region compliance engineer doubted that the new policy was being implemented, since no referrals for compliance actions for after-the-fact permits have been made in that region. Finally, a compliance engineer with permitting and compliance experience in two regions indicated that approximately one-quarter of all construction permits are issued as after-the-fact permits, but these rarely result in enforcement actions.

Recommendation

We recommend the Department of Natural Resources develop procedures to accurately identify all after-the-fact permits issued, determine if regional permitting staff are informing compliance staff of these permits, and determine if compliance and enforcement personnel are following DNR's guidelines for enforcement of after-the-fact permits.

Future Considerations ■

Program management must improve to meet air management goals.

In addition to the program and policy changes that recently took effect under 2003 Wisconsin Act 118, a number of proposed changes in federal law could also significantly affect the State's air management programs. Regardless of changes already enacted at the state level and additional changes that may result from efforts to modify federal requirements, DNR's program management must improve if Wisconsin's air management goals are to be achieved.

Changes in Federal Law

New EPA rules will affect the issuance of major construction permits.

In responding to long-standing industry criticisms and calls for reform, the EPA promulgated regulatory changes in December 2002 that may affect the issuance of major construction permits in Wisconsin, which has until January 2006 to implement the new rules. The changes are intended to:

- simplify or eliminate permitting requirements for specific pollution-control and prevention projects;
- encourage plant modernization and provide operating flexibility by establishing pollution caps that allow facility modifications as long as emissions remain below facility-wide limits;
- create incentives to install state-of-the-art pollution controls; and

- change the way that emissions increases are calculated for a proposed project.

According to the EPA, these changes will provide greater regulatory certainty to industry, encourage emissions reductions, and improve energy efficiency. However, a report issued by the United States General Accounting Office (GAO) in August 2003 found that the EPA had relied on anecdotal evidence submitted by industries most affected by its regulations to quantify the effect of its new rule. The GAO questioned whether the EPA had sufficient information to make reasonable economic estimates of the cost of the rules or their effect on emissions, because the EPA could not determine with any certainty the number of facilities that would opt to use the rules' voluntary provisions. The GAO recommended the EPA work with state and local air administrators to obtain the data necessary for determining the actual costs and potential effects of the rules.

New EPA rules have been challenged in federal court by 14 states, including Wisconsin.

The new EPA rules are controversial and have been challenged in federal court by several local air pollution agencies, the District of Columbia, and 14 states including Wisconsin. These governments, along with a number of environmental groups, fear that the proposed regulatory changes will result in less oversight of industry, making it more difficult to achieve national air quality standards. Because it is not known if the challenge to the new rules will prevail, in September 2003 DNR convened a task force consisting of industry representatives and DNR staff to revise Wisconsin's rules in response to the federal law changes. Public hearings were held on proposed state rules in January 2004.

In a separate action in October 2003, the EPA changed the definition of "routine maintenance, repair, and replacement" in construction permit rules. Under the old rules, routine maintenance, repair, or replacement projects were exempt from construction permitting requirements, but the EPA required a complex analysis to demonstrate that a proposed activity was exempt. The new rules are intended to clarify when equipment replacements are automatically excluded from permit requirements. The EPA believes they will encourage companies to make the repairs and replacements necessary for safe, efficient operation, and thereby reduce air pollution emissions as facilities upgrade aging equipment. The State and Territorial Air Pollution Program Administrators, a group representing state air pollution control agencies, opposed the rule changes because this group believes they further complicate, rather than clarify, existing federal regulations and fail to protect air quality. Again, Wisconsin joined 13 other states and the District of Columbia in a suit seeking to block implementation of the changes. The federal court has ordered the EPA to delay implementation of the rule until the case can be heard.

Finally, in December 2003 the EPA proposed new rules to reduce sulfur dioxide and nitrogen oxide emissions and to reduce the amount of mercury emitted from coal-fired power plants. The proposed rules require a 70 percent reduction in sulfur dioxide and a 50 percent reduction in nitrogen oxides by 2015. The proposed rules would reduce the amount of mercury emitted nationwide from coal-fired power plants—the largest source of mercury emissions in the United States—by as much as 70 percent of current levels by 2018. The proposed mercury rules include requests for comments on two proposals to reduce mercury emissions. The first includes an emissions credit trading system, which would allow facilities that exceed the required reduction levels to sell pollution credits to facilities where implementing controls may not be economically feasible. The second would require all existing facilities to install state-of-the-art pollution controls by 2008. The EPA intends to review public comments and issue final rules by December 2004.

Improving Program Management

Substantial management efforts are needed to improve program efficiency and effectiveness.

As noted, DNR's air management programs have been hampered by management deficiencies. We believe that substantial efforts are needed to improve the efficiency and effectiveness of DNR's air management programs, including developing additional performance measures, improving management information, and enhancing program accountability.

Developing Additional Performance Measures

1999 Wisconsin Act 9, the FY 1999-2001 Biennial Budget Act, directed DNR to establish objective performance measures for air management programs and to create a committee consisting of industry representatives and other interested parties to advise the agency in the selection and evaluation of these measures.

DNR's performance measures generally focus on outputs rather than outcomes.

We found that performance measures developed for DNR's air management programs generally focused on outputs, rather than outcomes. Instead of adopting measures that could provide a better assessment of program effectiveness, DNR's measures until recently attempted to track basic program information, such as the number of permits issued, the number of compliance inspections performed annually, and the status of emissions inventory reports submitted by regulated facilities. While these measures provide useful basic information, they do not lend themselves to a more thorough or systematic evaluation of program performance based on desired outcomes, such effectiveness in reducing the amount of pollution emitted and reducing the time necessary to issue permits.

Moreover, we found that DNR did not create the advisory group required by 1999 Wisconsin Act 9. According to DNR officials, invitations were sent to both industry and environmental groups; however, because environmental groups chose not to participate, DNR chose not to create the advisory group. DNR officials assert that the Clean Air Task Force, an existing advisory group consisting of both environmental groups and industry representatives, serves the required advisory function by providing feedback to the program on a wide range of issues, including performance. Nevertheless, the Clean Air Task Force was created primarily as a forum for discussing policy issues, such as proposed rules and the state implementation plan, rather than program performance.

Most of DNR's current performance measures do not address the underlying factors that influence program effectiveness or timeliness. For example, until recently DNR had not implemented performance measures for evaluating compliance with timeliness standards set forth in statute and administrative rule. This information would be useful not only to ensure that DNR is in compliance with timeliness standards, but also to provide regulated facilities with better estimates of the time needed to complete the permitting process in Wisconsin.

Likewise, DNR both tracks the receipt of emissions inventory reports and establishes annual air emissions fees based on emissions reported by regulated facilities; however, it has not established performance measures to ensure that all facilities report emissions and are billed appropriately. Establishing performance measures for timely and accurate data entry would provide better information to program managers and would reduce the potential for billing and permitting errors.

DNR implemented several new performance measures in October 2003, and some of these attempt to measure outcomes by:

- assessing compliance trends to measure which enforcement efforts are having the greatest effect in improving air quality; and
- measuring the number of calendar days from receipt of initial application to permit issuance for construction permits.

However, we believe establishing additional performance measures that focus on outcomes would better assist DNR in evaluating program performance and would provide the Legislature and the public with more useful information.

☑ Recommendation

We recommend the Department of Natural Resources establish additional performance measures that facilitate the assessment of program outcomes, such as improvements in air quality, program efficiency, and timeliness of permit issuance, including measures of the extent to which:

- *statutorily mandated construction permit time lines have been met;*
- *the 20-day and 15-day deadlines for information requests for construction permits have been met;*
- *DNR refunds application fees when it fails to meet construction permit timeliness deadlines;*
- *the proper facilities have been billed for emission fees annually;*
- *construction permit expedited review deadlines have been met;*
- *the amount of pollution emitted into the air has been reduced;*
- *Wisconsin's air quality has been improved;*
- *compliance inspections have been completed with appropriate frequency;*
- *appropriate enforcement actions have been taken against facilities that fail to meet compliance certification deadlines; and*
- *high-priority violation timeliness standards have been met.*

Improving Management Information Systems

At the beginning of our evaluation, we requested basic program information from DNR, including the number of operation and construction permits issued and the number of applications for which DNR has not yet issued permits. DNR staff were unable to provide reliable data on the number and type of pending and issued permits. After more than five months of discussion and assistance from us in improving the accuracy of agency databases, we obtained the best information available on DNR's air permits.

DNR does not have the basic, accurate data needed for effective program management.

In providing technical assistance to DNR, we identified three primary factors that contributed to its information management problems. First, DNR does not have adequate procedures in place to ensure timely and consistent entry of data by its staff. The lack of accurate data hinders many aspects of program management, including DNR's ability to comply with permit processing requirements.

Second, DNR does not regularly review permit information contained in its permit-tracking database to ensure data integrity and consistency with other data systems. This information is also needed for basic program management. For example, a review of information contained in various databases would facilitate accurate billing of regulated facilities.

A lack of basic program information hampers DNR's ability to issue permits.

Finally, we believe the database used to track permit information is needlessly complicated, leading to potential errors and misinterpretation of data. The lack of proper data management practices has several implications. First, without an accurate inventory, it is difficult to verify whether all of the sources of air emissions have been identified and whether they have applied for permits, if required to do so. In addition, because DNR uses its database to identify priority sources for permitting and compliance inspections, some priority sources may be overlooked because of accuracy problems. In October 2003, DNR made a commitment to the EPA that it would issue the remaining initial operation permits to major sources by January 2005. However, we question whether DNR will be able to verify that this commitment has been reached without an accurate inventory of sources and outstanding permits. Improvements in DNR's management information systems and procedures are needed for effective program management.

☑ Recommendation

We recommend the Department of Natural Resources:

- *develop a manual for its database that clearly explains staff responsibilities for entering and maintaining database information;*
- *provide training to staff who are responsible for entering information;*
- *implement procedures to improve data quality, including limiting the number of staff who have authority to enter and modify information and implementing procedures to ensure consistent data entry;*

- *develop procedures for regularly reviewing information contained in the database to identify data problems;*
- *work toward eliminating duplicate and unnecessary fields to simplify database use; and*
- *improve integration of existing data systems.*

Enhancing Program Accountability

It is difficult to determine the ultimate cause for each of the program deficiencies we have identified with DNR's air management programs. DNR officials point to the large number of permits to be issued, the complicated nature of air permitting, and limited staff resources. However, the extent to which any of these factors has affected program effectiveness is difficult to assess.

We believe significant improvements in program management are needed to address the problems we have identified and that more attention should be placed on fundamental program management. For example, over the past several years DNR has devoted substantial resources to identifying and proposing the regulation of additional hazardous air pollutants. While the regulation of additional pollutants may be warranted, may lead to improved air quality, and may have the support of the DNR Board and other policymakers, it will serve little purpose if permits are not issued or if it diverts resources from critical management functions for ensuring compliance with existing permitting requirements.

Significant improvements in program management are needed.

Greater accountability is needed to ensure that ongoing problems are corrected, future problems are averted, and adequate programmatic information is made available to policymakers and the public.

Recommendation

We recommend the Department of Natural Resources report to the Joint Legislative Audit Committee by September 1, 2004, on:

- *the number and type of facilities that should have been reporting emissions data to DNR but were not;*
- *the procedures it has developed to ensure that all facilities will be billed appropriately in the future;*

- *the number and location of facilities that have not applied for initial or renewal operation permits, as required;*
- *the number of applications for operation permits that were not properly recorded or assigned for review, as well as the reasons for these oversights;*
- *the status of permits that completed the public comment period but were never issued;*
- *the number and type of enforcement actions it plans to take against regulated facilities it finds have failed to submit required applications or emissions data;*
- *its plans to reallocate staffing resources to address backlogged permits, as well as the anticipated effects of these changes;*
- *the extent to which it plans to implement the permit streamlining recommendations made by its 1998 workgroup; and*
- *how it will ensure that inspection frequency goals are met, and all facilities are inspected.*

■ ■ ■ ■

Appendix 1

Time Line for Regulation of Stationary Sources of Air Pollution

- 1961 Chapter 508, 1961 Laws of Wisconsin, grants authority to counties to control air pollution. Milwaukee begins to control the emission of visible particulate matter.
- 1967 Chapter 83, 1967 Laws of Wisconsin, directs DNR to organize a program to protect the State's air resources.
- 1970 DNR implements the first statewide air pollution control program in July. These rules primarily affect coal-burning facilities in the southeast portion of the state.
- Congress passes the Clean Air Act Amendments of 1970, creating the first significant national air quality standards and requiring states to submit documents to the EPA that outline a strategy for meeting these standards.
- 1972 As required by the federal Clean Air Act, Wisconsin begins to require large industrial facilities in areas that do not meet air quality standards to control their emissions of particulate matter and sulfur oxides.
- 1977 Congress passes the Clean Air Act Amendments of 1977, which require states to expand their programs for new sources of stationary air pollution to include more stringent performance standards and a formal construction permit system.
- 1977 As required by the federal Clean Air Act, Wisconsin creates its New Source Review program and implements more stringent standards to control air pollution from large stationary sources of air pollution.
- 1985 Chapter 144, 1979 Laws of Wisconsin, creates a state operation permitting program not required by federal law at the time. This program increases the number of facilities required to obtain permits.
- 1988 DNR promulgates new administrative rules that begin regulation of hazardous air pollutants.
- 1990 Congress passes the Clean Air Act Amendments of 1990, which require Wisconsin to begin a federally enforceable operation permit program and begin federal regulation of hazardous air pollutants.
- 1994 As required by the federal Clean Air Act, Wisconsin adopts a federal operation permit program.

Appendix 2

Percentage of Monitored Days with Unhealthy Air Quality¹

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ashland	–	–	–	–	–	–	–	–	0.0% ²	0.0% ²	0.0% ²
Brown	0.0%	0.0%	0.8%	1.7%	0.3%	0.6%	1.9%	0.8%	1.7	0.8	1.4
Columbia	0.0	0.0	3.3	1.6	0.5	0.0	2.7	0.5	0.5	1.1	0.0
Dane	0.0	0.0	0.8	0.3	0.3	0.3	1.4	0.0	1.6	0.4	1.1
Dodge	0.0	0.0	0.5	1.1	1.1	0.5	2.2	0.3	0.8	0.8	0.8
Door	0.6	3.8	4.9	3.3	3.8	3.8	6.4	1.3	4.1	2.9	3.1
Douglas	0.0 ²	0.0 ²	0.0 ²	0.0 ²	0.0 ²	0.0 ²	0.0	0.0	0.0	0.0	0.0 ¹
Eau Claire	–	–	–	–	–	–	–	–	–	0.0 ¹	0.0 ¹
Florence	0.0	0.0	0.0	0.6	0.0	0.5	2.7	0.0	0.5	0.0	0.0
Fond du Lac	0.0	0.0	1.1	1.1	0.5	0.5	2.7	0.5	1.6	1.1	0.0
Forest	–	0.0 ²	0.0 ²	–	–	–	–	–	–	0.0 ²	0.0 ²
Grant	–	–	–	–	–	–	1.8 ²	0.0 ²	0.9	0.0	0.0 ²
Green	–	–	–	–	–	–	–	1.4 ²	0.0	0.5	0.0
Jefferson	0.5	0.0	2.2	1.1	0.0	1.1	3.3	1.4	2.0	1.2	0.0
Kenosha	2.7	3.2	10.3	3.2	3.0	8.1	6.2	1.6	6.1	5.7	2.9
Kewaunee	0.5	2.7	3.2	1.1	2.7	2.2	4.3	1.6	3.8	3.8	3.6
Manitowoc	0.4	5.4	8.6	5.4	4.3	6.5	5.5	0.8	4.1	2.0	3.4
Marathon	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.5	0.0	0.0	0.0
Milwaukee	1.1	2.2	3.6	1.4	1.4	3.0	4.7	1.4	5.2	3.0	4.1
Oneida	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0
Outagamie	0.0	0.0	1.6	0.5	1.1	0.5	2.5	0.0	2.0	0.0	1.1
Ozaukee	0.9	4.7	5.9	2.7	2.2	5.4	7.9	1.7	4.5	3.7	4.0
Polk	0.0	0.0	0.0	0.0	0.0	0.3	0.0 ²	–	–	–	–
Racine	0.5	1.4	3.0	0.8	1.4	0.8	1.6	0.3	1.6	3.0	0.0
Rock	0.5	1.1	2.2	2.7	2.2	1.6	3.7	1.2	1.2	1.6	0.0
Sauk	–	–	1.3	0.0	0.0	0.3	1.4	0.0	0.0	0.0	0.0
Sheboygan	0.0	1.1	4.4	1.7	3.0	3.8	6.5	2.2	7.6	10.3	2.9
St. Croix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0
Taylor	–	–	–	–	–	–	–	–	0.0 ¹	0.0	0.0 ¹
Vernon	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
Vilas	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Walworth	0.0	1.6	2.8	1.1	1.1	1.6	3.8	0.0	2.2	1.6	1.4
Washington	0.0	0.5	3.2	1.1	1.1	0.6	3.0	0.0	1.7	2.7	0.7
Waukesha	0.0	0.3	1.4	0.5	0.8	0.6	2.2	0.3	2.2	0.8	0.4
Winnebago	0.0	0.0	2.2	0.0	0.5	0.5	2.1	0.0	2.0	0.4	0.0
Wood	0.0	0.0	–	–	0.0 ²	0.0	0.0	0.0	0.0	0.0	0.0 ²

¹ The EPA index category was either “unhealthy for sensitive groups” or “unhealthy.”

² Based on less than 100 days of monitoring information.

Appendix 3

Major and Synthetic Minor Permit Issuance Rates

Through June 30, 2003

State	Number of Major Facilities	Number of Major Permits Issued	Number of Synthetic Minor Permits Issued	Total Permits Issued	Percentage of Major Permits Issued
EPA Region 1					
Connecticut	98	70	397	467	71.4%
Massachusetts	173	96	400	496	55.5
Maine	74	53	276	329	71.6
New Hampshire	53	45	200	245	84.9
Rhode Island	49	30	105	135	61.2
Vermont	23	20	60	80	87.0
Subtotal	470	314	1,438	1,752	66.8
EPA Region 2					
New Jersey	397	203	524	727	51.1
New York	549	488	3,787	4,275	88.9
Puerto Rico	57	22	45	67	38.6
Virgin Islands	7	2	0	2	28.6
Subtotal	1,010	715	4,356	5,071	70.8
EPA Region 3					
District of Columbia	34	34	0	34	100.0
Delaware	85	82	68	150	96.5
Maryland	167	127	22	149	76.0
Pennsylvania	786	746	23	769	94.9
Virginia	300	272	158	430	90.7
West Virginia	202	142	8	150	70.3
Subtotal	1,574	1,403	279	1,682	89.1
EPA Region 4					
Alabama ¹	302	254	117	371	84.1
Florida	1,653	1,653	313	1,966	100.0
Georgia	374	356	671	1,027	95.2
Kentucky ¹	323	240	158	398	74.3
Mississippi	316	313	240	553	99.1
North Carolina ¹	415	370	742	1,112	89.2
South Carolina	299	299	242	541	100.0
Tennessee ¹	326	301	741	1,042	92.3
Subtotal	4,008	3,786	3,224	7,010	94.5

State	Number of Major Facilities	Number of Major Permits Issued	Number of Synthetic Minor Permit Issued	Total Permits Issued	Percentage of Major Permits Issued
EPA Region 5					
Illinois	728	591	680	1,271	81.2%
Indiana	741	566	1,348	1,914	76.4
Michigan	470	401	647	1,048	85.3
Minnesota	336	243	2,280	2,523	72.3
Ohio	705	606	513	1,119	86.0
Wisconsin ²	590	380	692	1,072	64.4
Subtotal	3,570	2,787	6,160	8,947	78.1
EPA Region 6					
Arkansas	285	275	185	460	96.5
Louisiana	1,058	755	300	1,055	71.4
New Mexico ¹	194	172	79	251	88.7
Oklahoma	459	307	538	845	66.9
Texas	1,942	1,310	0	1,310	67.5
Subtotal	3,938	2,819	1,102	3,921	71.6
EPA Region 7					
Iowa	304	246	186	432	80.9
Kansas	367	301	836	1,137	82.0
Missouri	465	427	81	508	91.8
Nebraska ¹	129	92	64	156	71.3
Subtotal	1,265	1,066	1,167	2,233	84.3
EPA Region 8					
Colorado	131	124	191	315	94.7
Montana	59	59	25	84	100.0
North Dakota	50	49	4	53	98.0
South Dakota	200	200	51	251	100.0
Utah	76	63	76	139	82.9
Wyoming	152	150	30	180	98.7
Subtotal	668	645	377	1,022	96.6

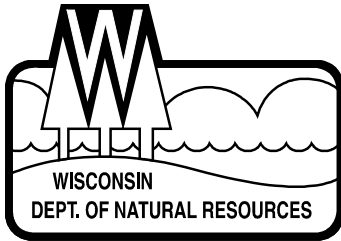
State	Number of Major Facilities	Number of Major Permits Issued	Number of Synthetic Minor Permits Issued	Total Permits Issued	Percentage of Major Permits Issued
EPA Region 9					
Arizona ¹	144	66	131	197	45.8%
California ³	1,355	922	149	1,071	68.0
Hawaii ⁴	125	129	40	169	103.2
Nevada ¹	49	31	0	31	63.3
Subtotal	1,673	1,148	320	1,468	68.6
EPA Region 10					
Alaska	265	180	51	231	67.9
Idaho	51	50	112	162	98.0
Oregon ¹	150	150	123	273	100.0
Washington ¹	135	120	145	265	88.9
Subtotal	601	500	431	931	83.2
Total	18,777	15,183	18,854	34,037	80.9

¹ Permits are issued by both state and local permitting authorities.

² Totals for Wisconsin differ from numbers reported to the EPA. Synthetic minor permits include general operation permits.

³ California permits are issued by local permitting authorities.

⁴ The EPA reported that Hawaii issued 129 Title V permits, despite having only 125 major sources.



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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Scott Hassett, Secretary

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February 19, 2004

Janice Mueller
State Auditor
22 East Mifflin Street, Suite 500
Madison, WI 53703

Dear Ms. Mueller:

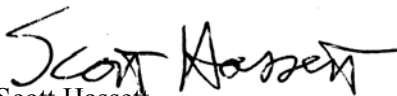
Thank you for providing us the opportunity to prepare a written response to be published with the final Legislative Audit Bureau report evaluating the Department's Air Management Program.

Enclosed is a copy of our written response. We are in substantial agreement with the findings of the report. In our written response, we provide a context for how past decisions were made, highlight several strengths of the Program, describe the limitations the Program faced and demonstrate how we are already taking action on many of the recommendations.

We found the procedures you used to issue the final report to be very helpful. We believe the opportunity to review a confidential draft and fine tune technical issues and the exit interview allowed for clarification and constructive discussion of the findings.

We appreciate the high level of professionalism, dedication and open communication that the audit team established with us. We will follow-through on your recommendations and report to the Legislative Audit Committee by September 1, 2004. Thank you again.

Sincerely,


Scott Hassett
Secretary

**Department of Natural Resources Response
Legislative Audit Bureau - Air Management Program Audit
February 19, 2004**

The Wisconsin Department of Natural Resources actively manages programs based on a Continuous Quality Improvement Model. Therefore, the Department and the Air Management Program in particular, view the Legislative Audit Bureau (LAB) evaluation as important feedback to use in enhancing future program management and direction. The Department is in substantial agreement with the report findings. In fact the Department finds many of the report's conclusions to be right on target and the recommendations will dovetail nicely with ongoing and planned program improvement efforts. The Department recognizes that this was a challenging project for the Legislative Audit Bureau and appreciates the high level of professionalism, dedication of the audit team and the open communication they established with Air Management Program staff.

Maintaining an effective air management program in Wisconsin is critical to achieving the clean air needed to support the good health of state citizens. Air pollution is not just "irritating" or "aggravating". Air pollution causes or contributes to very significant health effects. Asthma, chronic lung disease, birth defects, cancer, heart disease and premature death have all been scientifically linked to air pollution in the environment. EPA estimates that implementing the federal standards for fine particles (just one of a number of pollutants) in the U.S would prevent approximately 15,000 premature deaths, 75,000 cases of chronic bronchitis; thousands of hospital admissions and millions of lost work days. So ultimately, health impacts have economic impacts to our society as well.

The report focuses on a limited snapshot of time. Over the last ten year period (1993 –2003), Wisconsin's Air Management Program has actually lost 20% of its staff resources (vs. the 8.1% decline documented in the period of time covered in the LAB report). This level of resource reduction has presented substantial management challenges for the program. While the LAB report includes lots of useful information from other states in terms of permit issuance rates, it does not include numbers of permit writers or level of available permit funding in each of the states they evaluated. This type of information would have been extremely useful in helping Wisconsin determine the level of resources needed to operate permit programs comparable to those found in other states. The Department expects the State will still be asked to address the question of adequacy of program funding as part of a response to a federal Notice of Deficiency expected to be issued by the EPA in February 2004.

Throughout this time, the Air Management Program has maintained a highly effective construction permit program. As noted in the audit report, Wisconsin's length of time in processing a new construction permit is 36 days faster than the 139 day average found in Idaho and less than half the time of the national average as measured by EPA. The Air Management Program has consistently given priority to its construction permit program to support industry growth and development. The long turnaround times for the 40 permits cited in this report are for reasons beyond the control of the air program and often at the request of industry. Again, the Air Management Program focused on being customer service oriented by putting applications on hold for industry. This was done consciously and the Department does not view this as a failure in management.

The report portrays the emission fee billing system problems. These problems have received immediate attention. The Department has reimbursed companies that were overcharged and is taking steps to ensure it receives funds from those companies that should have received bills. For the audit time period over \$75.4 million in fees was collected, so the errors affected a very small percentage of the emissions fees billed.

The report points to management shortcomings in a number of places. The Department would like to set a bit of historical context. We believe many of the management shortcomings relate to broader policy direction and priority setting under previous administrations. For instance, previously the program very consciously placed a high priority on construction permits versus operation permits in order to support economic and industry needs in the state. At that time, senior agency management approved the schedule provided to EPA, which proposed a balanced approach to permit issuance. This schedule addressed the largest federal operation permits first, kept current with operation permit renewals and included federally enforceable state operation permits.

This was done to balance responsiveness to large and small sources, target the most significant environmental improvements needs first and avoid developing a large backlog of renewals. The downside to this approach was that it allowed a backlog of federal operation permits that did not compare well with other states and did not receive approval from EPA. Under the Doyle Administration and the Grow Wisconsin Initiative, the Department has changed this schedule and has aggressively pursued eliminating the Operation Permit backlog. The Air Management Program is on schedule to eliminate the operation permit backlog by December 2004. In the last year the current administration has changed program priorities and the Air Management Program has responded rapidly to implement the new direction.

OCTOBER 2003 AIR MANAGEMENT PROGRAM RESTRUCTURING

The Air Management Program has restructured its programs and reassigned staff as a result of budget cuts, Title V funding requirements and to align our limited resources with the available funding sources. October 6, 2003, was the effective date for the restructuring and staff reassignments. The most recent state budget reduced the emission fees account by \$1.1 million and eliminated 11.5 full-time positions. Over the past 6 years, Air Management Program staff has decreased by 35 full-time positions. With fewer staff, we have readjusted work assignments to focus on activities that have the greatest impact on air quality in Wisconsin. In the central office, the program has reorganized along functional lines to improve efficiency and make the points of contact clearer for customers. In the regions, field compliance staff was increased in the Milwaukee area (Southeast Region), where air quality concerns are the greatest.

Among the changes were the creation of a permitting section, and a compliance and enforcement section. These sections provide statewide program oversight and points of contact for EPA Region 5 on federal program implementation issues. Implementation of Air Management Program priorities, policies, and guidance is the responsibility of the Section Chiefs and Regional Team supervisors. Both the regional team supervisors and the central office section chief's serve on the Air Management Team (AMT) which is lead by the Air Program Bureau Director.

The reduction in staff due to budget cuts and the reassignment of staff to construction permits and compliance, emission inventory and outreach for large facilities means that programs were eliminated or reduced in scope.

These programs and activities have been eliminated.

- Biomonitoring program (monitors air pollution impacts on the ecosystem)
- 17 ambient air monitoring sites
- Smoke school
- Climate change policy analysis (global warming and greenhouse gases issues)
- Forecasting for particle pollution levels

These programs have been reduced to varying degrees.

- Small source compliance and enforcement
- Non-Title V complaint follow-up
- Mercury modeling and policy analysis
- Ozone policy analysis
- Air toxics policy analysis
- Stack testing
- Asbestos

JUNE 2003 AIR PERMIT IMPROVEMENT INITIATIVE

At the June 2003 Natural Resources Board meeting, Department Secretary Scott Hassett announced the Wisconsin Air Permit Improvement Initiative (APII). The purpose of this initiative is to develop and implement ways to improve our efficiency in environmental regulation and program implementation while meeting the environmental protection needs of our citizens. This initiative is a two pronged approach, including streamlining the permitting process for operation and construction permits in the Air Management Program, and retooling Wisconsin's new source review regulations in light of the federal changes in this area. This initiative complements and supports our goal to reduce the backlog of Title V operation permits by the end of the year.

The Air Permit Streamlining Team is comprised of Department managers and staff, including experienced permit writers, who have focused their efforts on the following:

- Identify obvious and easily implementable streamlining policies and put them into practice as soon as possible.
- Survey stakeholders regarding problems and concerns they have with the permitting process.
- Survey air permit drafters and other air management staff to gather ideas for streamlining.
- Map the permit process for the Air Management Program construction and operation permits.
- Analyze past efforts to streamline air permitting and review the present status of those efforts.
- Review regulatory streamlining methods and non-regulatory tools used by other states and countries, particularly those running successful, environmentally effective programs.

These process improvements are intended to help the air program more efficiently handle revisions or renewals or operation permits while eliminating the permit backlog. The target is to approve or deny a new operation permit application in less than 180 days. This project will work collaboratively with Wisconsin businesses and environmental groups and is scheduled to have all work completed by December 2005.

Wisconsin Act 118 sets additional requirements and changes to the operation and construction permit programs that provide additional foundation for the permit improvement effort.

IMPLEMENTING REPORT RECOMMENDATIONS

The report contains fifteen specific recommendations for the Department to address. Actions have already been taken to address many of these recommendations. We also have plans underway to ensure we completely address all recommendations. We will report our progress on all the recommendations in the report to the Joint Audit Committee by September 1, 2004. The following section highlights what we have already done to implement the recommendations.

- *correct annual emission fee billing errors*

Refunds have been sent to ten facilities. A reassessment showed these companies did not need a permit and consequently should not have been billed. The ten facilities were refunded \$22,225.79 in fees collected from 1996-2003.

The data integration project, that is a component of the APII, will increase the accuracy of the annual emission fee billing by providing the ability to cross check emission reports with permits issued to facilities. In the meantime, a new process to compare the emissions billing to permitted facilities will be used for the May 2004 billing.

The Department plans to review the 232 facilities that applied for operation permits but had not reported or paid emission fees to verify they are exempt from reporting.

- *assign additional permit engineers to issue operation permits in the Southeast Region*

The Department recognizes that a majority of the remaining operation permits to be issued are for facilities that are located in the Southeast Region. The Department has assigned approximately half of the remaining operation permit reviews to staff that are located outside Southeast Region to ensure that we eliminate the backlog by the end of 2004.

- *streamline the operation permit program*

The Department launched the APII in June 2003 to simplify and streamline both the operation and construction permit programs including exploring alternatives to traditional permit approaches. This work is underway with a final completion date of December 2005 for implementation of all improvements. APII will include the following key elements:

- a. Clarification of when, where and who should do air quality modeling.
- b. Simplifying the language and detail required in preliminary determinations and permits.
- c. Development of an IT system that will support (pending funding approval):
 1. Electronic submittal of permit applications
 2. More accurate and timely tracking of who submits or should submit applications and the progress of each review.
 3. Determination of which facilities and projects should be exempt from permits.
 4. Timely notification and follow through of permit renewals.

- *ensure that facilities have properly applied for permits*

Using approaches developed in consultation the Legislative Audit Bureau; the Air Management Program can now consolidate data from its separate and distinct databases to verify whether facilities that submit application fees have applied for operation permits. These new approaches will also exclude from the Department's billing procedures those facilities that are exempt from operation permit requirements. The Department plans to integrate the data in these systems in the future, making it even more automated and more efficient.

The Department is already in the process of verifying the application status of each of the 71 facilities that the Legislative Audit Bureau identified as appearing to be required to apply for operation permits. Responding to another audit finding, the Department is verifying the application status for additional

175 facilities that the Department had identified as exempt from operation permit requirements but had not documented. The Department will fully document its findings.

- *revise the expedited review process for construction permits*

The Department plans to promulgate a rule revision to provide that the time taken for an applicant to publish the notice of the Department's determination is not included in the review time for an expedited permit.

- *streamline the construction permit program*

The Department initiated the Air Permit Improvement Initiation (APII), an intensive effort to streamline both the operation and construction permit programs. This effort has completed its data gathering activities and is now engaged in developing process improvement approaches. The Department is looking at the entire construction permit program, in light of the changes made by 2003 Wisconsin Act 118, and will implement changes to be more efficient and effective.

- *improve the facility inspection process*

The Department issued guidance on activities to be included in full compliance evaluations in May 2002. For fiscal year 2004, the Department's CMS plan provides guidance on selecting facilities for inspections based on factors such as facility emissions and the date of the facility's last inspection.

- *improve compliance with federal policy for high priority violations*

The most recent guidance was issued in May 2003 and the Department is monitoring the resulting progress and performance.

- *improve the compliance certification process*

In July 2003, Air Management compliance staff in the Regions began entering compliance certification data directly into the central compliance database to improve the timeliness of data entry. A policy for dealing with portable sources (which may move from region to region) is currently under development.

- *improve its data system*

An effort is currently underway to develop plans and cost estimates for integrating the various Air Management Program data systems. Assuming funding is approved, the data integration project in the APII will provide staff and managers with the tools needed to better manage compliance and enforcement responsibilities.

We wholeheartedly concur with the audit report's recommendation to improve our data systems. Our data systems were designed over a decade ago as stand-alone systems. They have been incrementally modified over time, as funding has allowed to meet Department hardware and software standards. Recent budget reductions will impact information technology staff Department-wide. This may impact our ability to implement the audit report data systems recommendation.

COMMENTS ON REPORT CONTENTS

The comments below are provided for clarification and additional context to the LAB report findings in select sections of the LAB report.

Highlights Section

Construction Permits

The Legislative Audit Bureau has reported that at the close of its data collection period, the Department had 137 pending construction permit applications and that 29.2 percent of these applications had been pending for more than two years. While the Department does not take issue with these facts, permits that are pending in the construction permit queue are most often a result of factors beyond the Department's control. In the Legislative Audit Bureau's review of 88 construction permit actions, it found nine permit reviews that took longer than 1 year to complete. The Legislative Audit Bureau staff contacted these facilities and found that unique circumstances affected the process of all nine permits, all of which were beyond our control. Examples of such delays include facility requests to put one application ahead of another, applications for new power plants affected by the Public Service Commission's siting laws, and predicted violations of air quality standards. These examples are typical and influence the permit applications that have been pending for more than two years. Thus, the 29.2% pending rate must be taken into context to provide for an objective reaction to this fact.

Finances and Staffing Section

Staffing

The overall staffing for the implementation of Wisconsin's air quality programs consists of the Department's Bureau of Air Management and air management staff in the five Regions, with support from staff in the Department's other programs and the Department of Commerce's Small Business Assistance Program. The funding for the program is from several sources each with its own limitation on how the funding may be spent. Emission tonnage fees, federal grants, the petroleum inspection fund and permit fees account for over 97% of the program funding. The remaining 3% of the program funding are from fees collected for the regulation of asbestos and ozone depleting refrigerants and general-purpose revenue.

Since the program is virtually funded by program revenues and federal grants, the program monitors the revenues collected closely. When projections indicate inadequate revenues, the program has proactively reduced expenditures and investigated the possibility of increasing the revenues. For the past 8 years, the program has been unsuccessful in obtaining increased fees through the biennial budget process. Therefore, the program was required to eliminate positions to contain costs within our available funding.

The reduction of staffing has required the program to make critical choices on program priorities. The Air Management Program intends to request funding to stabilize our Stationary Source appropriation at current staffing levels at a minimum and possibly increase staffing and spending authority levels if needed in response to an EPA Notice of Deficiency.

Finances

Table 4, in the LAB report, itemizes the revenues of the Air Management Program. It is important to note these revenues support the Bureau of Air Management and the air management staff in the Regions, with support from staff in the Department's other programs and the Department of Commerce's Small

Business Assistance Program. The revenue for construction permit fees exceeds the programs' Chapter 20 spending authority and the federal grants cannot be used for work on permits and major source compliance or enforcement. In addition, the FY2002-2003 GPR funded activities were funded by the Department of Transportation in FY1996-97.

Table 5, in the LAB report, indicates a 51.4% increase in contractual services. This increase is due primarily to the activities associated with the increase in federal and state grant funding for specific projects (e.g., PM2.5 monitoring, toxics monitoring, Stage 2 vapor recovery, the gas cap wrench program).

Operation and Construction Permit Programs Sections

Since the Legislative Audit Bureau ended its period of review, the Department has revised its priorities for operation permit review. Previously the Department had sought to complete operation permit reviews for facilities that had the largest environmental impacts, sought a permit to avoid federal standards or had submitted renewal applications. Using these priorities, the Department had planned on completing the reviews for the operation permits required under federal law by December 2005. Responding to Governor Doyle's Grow Wisconsin Plan, the Department has shifted its work efforts to concentrate on only those applications for operation permit that are required under federal law and is scheduled to complete these reviews by December 2004.

Progress is readily apparent by reviewing EPA's Internet posting of operation permit review progress with Table 15 from the audit report.

Major Permit Issuance Rates in EPA Region 5 States						
As of June 30, 2003				As of January 2004		
State	Number of Facilities	Number of Permits Issued	Percentage of Permits Issued	Number of Facilities	Number of Permits Issued	Percentage of Permits Issued
Illinois	728	591	81.2%	725	675	93%
Indiana	741	566	76.4%	725	582	80%
Michigan	470	401	85.3%	484	438	90%
Minnesota	336	243	72.3%	327	218	67%
Ohio	705	606	86.0%	696	626	90%
Wisconsin	590	380	64.4%	578	426	74%
Total	3,570	2,787	78.1%	3,535	2,965	84%

While this comparison shows the changing nature of major source status throughout the Region, it also shows the progress Wisconsin has made towards the issuance of these permits in comparison to other states in Region 5. Wisconsin no longer has the slowest permit issuance percentage in Region 5 as it has issued the second most permits in of any Region 5 state over the last six months. Wisconsin also had the second highest gain in percentage of permits issued.

To complete these reviews by December 2004 does come at a cost. The Department has diverted resources from the issuance of synthetic minor permits and permit renewals to work on major source permits. As a result, a continuously growing amount of renewal applications are submitted, but not acted upon by the Department because the resources are not available to do so until the major source permit commitments are satisfied. While 2003 Wisconsin Act 118 does set review times for acting on these

renewal applications that the Department is committed to ensuring are received, meeting the required review time frames will prove difficult in 2004. Nonetheless, streamlining efforts and increased utilization of general permitting will provide assurances that the process is more efficient in 2005 and beyond.

The Department agrees with the Legislative Audit Bureau's findings regarding the difficulty in determining the amount of staff resources devoted to permitting throughout Region 5 due to the varying ways that each air program allocates its resources. However, the Department has gathered data that indicates that our allocation of resources to permitting activities is similar to the states that the Department had evaluated, with the exception of Michigan and Illinois, which appear to have allocated a much higher percentage of staff to permitting. This allocation of resources may account for Michigan and Illinois's ability to lead Region 5 in permit issuance percentages.

The Legislative Audit Bureau has identified 113 operation permits that have completed their public comment period but have yet to be issued. Forty-four of these are facility-wide operation permits while the remaining sixty-nine are operation permits that are associated with an expiring or expired construction permit. The Department has initiated steps to ensure that these permits are issued promptly.

The Department has developed a process for notifying holders of expiring air permits of their obligation to submit a permit renewal application. This process is based upon the same system that is used by annually to collect emissions fees by using electronic mail as the primary means for providing notification to these permit holders. Approximately 90% of those that submit emissions data are able to communicate by e-mail, thus the Department believes this method will be equally successful in reaching these permit holders. Those permit holders that are unable to be reached using e-mail or those that are non-responsive to the application requests will be contacted through written correspondence. The department will take appropriate enforcement action with those facilities that fail to submit an application for permit renewal.

The Department's construction permit review program has been implemented historically as a priority program because many projects that are required to obtain a construction permit are related to economic growth. Although minor source construction permitting efforts, which are required under Title I of the Clean Air Act, can vary significantly from state to state, major source review protocols are consistent across the country. EPA has reported that from 1997 through 2001, it took an average of 7.2 months for states to process a major source permit, while Wisconsin's average, using the same benchmark was 68 days in 2003 and has not exceeded 87 days this millennium. The Legislative Audit Bureau found a median review time of 103.5 days from receipt of a permit application to when the permit was issued for the 88 permits it examined. This is twice as fast as the average for all states reported by EPA.

The Legislative Audit Bureau's report provides information from Idaho's Office of Performance Evaluations as the most reliable and accurate data that it could find regarding construction permit issuance rates. The report cites that the average number of days to it took Idaho to issue a construction permit from the date that the application was considered to be complete was 139 days in FY2000-01 and that the state had exceeded regulatory timeliness requirements 45% of the time. Of the 88 Wisconsin construction permits that the Legislative Audit Bureau reviewed, 86.4% met statutory timeliness standards with a median time to issue a permit from the date that the application was considered to be complete of 53 days, less than half that of Idaho's.

Despite the Department's ability to process construction permits quicker than national averages, the program continuously seeks to improve efficiency and shorten its review times. The Department is currently undergoing rule writing and streamlining efforts that will provide greater program effectiveness and more responsive feed back to permit applicants. The Department welcomes the challenges brought on by 2003 Wisconsin Act 118's tighter construction permit review timeframes and is encouraged by the

Legislative Audit Bureau's recommendations to provide better benchmarks and data management of the program.

Enforcement Efforts Section

The audit report correctly notes several EPA policies (CMS policy, HPV Policy) that impact the Air Management Program. However, the report does not place implementation of those policies in the context of routine interactions between the Department and EPA.

The two agencies negotiate an EnPPA (Environmental Performance Partnership) agreement every 2 years that sets out expectations for both Department and EPA actions. Assessments of program performance are developed and discussed at the end of the term of each agreement, and changes are made in subsequent agreements. Perhaps more importantly, the two agencies conduct monthly air program conference calls on air program compliance and enforcement issues. EPA compliance and enforcement staff as well as Department Air Management and Environmental Enforcement staff (from both central office and the regions) participate in those calls. Specific individual cases are discussed and concurrence from EPA is obtained where it will take more than 270 days to resolve an enforcement case, or where legal or other circumstances make strict adherence to the HPV policy inappropriate. This forum fosters common understanding of compliance and enforcement policies and their application between the two agencies and across regions and programs in the Department.

Our focus on primarily tracking numbers of full compliance evaluations completed was driven by EPA emphasis with them during EnPPA discussions and during our monthly conference calls. We do concur with the audit report recommendations to track additional areas of compliance program performance, and feel that this will benefit the program. As noted elsewhere, improvements in Air Management data systems will greatly assist program management in assessing and improving program performance.

Conclusion

The Air Management Program is one of the most complicated environmental protection programs due in large part to the length and complexity of the federal and state statutes it must implement. The Department is committed to improving the program and simplifying the regulatory approach while still maintaining and enhancing air quality in Wisconsin. The Department has found the Legislative Audit Bureau review of the Air Management Program to be both a constructive and informative process. This review has helped us identify areas of the program that need improvement as well as approaches we should investigate while making needed improvements. We are rapidly moving forward to address all of the recommendations in the report.