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Air Management Programs

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Introduction

The federal Clean Air Act and Clean Air Act Amendments of 1990 established air pollution control requirements that states must implement. The U.S. Environmental Protection Agency (EPA) is responsible for federal implementation of the Clean Air Act. The Clean Air Act called for a gradual implementation of many of its provisions over many years.

EPA establishes air quality standards for various air pollutants, and designates areas in states that do not meet the standards. These areas are called "nonattainment areas." EPA issues regulations that require states to reduce emissions of ozone, nitrogen oxide, particulate matter and other pollutants over several years. In general, states are required to: (a) develop and submit to the federal government a series of implementation plans describing the programs and controls the state will utilize to reduce emissions and attain acceptable air quality levels; and (b) implement the plans to attain specific air quality levels by established dates or risk further federal requirements and eventually sanctions.

The Clean Air Act also: (a) created stricter standards on emissions from motor vehicles; (b) called for the use of alternative clean fuels; (c) created additional controls on air emissions at industrial facilities; and (d) established other air emission control measures for power plants, stationary engines at industrial facilities, small nonroad engines, and sources that are too small to regulate individually.

The Wisconsin Department of Natural Resources (DNR) is responsible for development and oversight of the state's programs to comply with federal requirements. DNR is provided authority to conduct air quality programs under Chapter 285 of the statutes and administrative rules in the NR 400 series. The Department issues construction and operation permits for air emission sources, monitors air quality across the state, and enforces air quality standards. The Department of Transportation (DOT) and regional planning commissions assist in the administration of certain provisions regarding vehicle inspections and other transportation control measures.

Federal clean air requirements are having major impacts on individuals and businesses in Wisconsin. In particular, DNR has submitted a series of plans to EPA that outline the measures the state will take in reducing ozone emissions in the southeastern portion of the state. DNR has initiated several programs and instituted several controls necessary to create plans that would reduce ozone emissions and meet national ozone standards. DNR is also working on plans that would help the state meet national particulate matter standards.

The Clean Air Act requires states to implement a permit program for certain large stationary sources of air pollutants. DNR established and operates a program to issue permits to new and existing stationary sources of air emissions.

This paper provides an overview of the major federal provisions that affect Wisconsin, a discussion of actions required of the state and the state's plans and programs for meeting federal clean air requirements. The paper describes the air management activities of the DNR, including issuance of air emission permits, compliance and monitoring activities, development of state implementation plans in compliance with federal requirements, special air studies, other air management programs, and funding sources for DNR air management programs.

CHAPTER 1

MAJOR FEDERAL CLEAN AIR ACT REQUIREMENTS

National Ambient Air Quality Standards

Under the Clean Air Act, the Environmental Protection Agency (EPA) establishes national ambient air quality standards (NAAQS) based on scientific determinations of the threshold levels of air contaminants that will protect public health with an adequate margin of safety. Ambient air standards relate to the quality of the air we breathe. In comparison, emission limits relate to the quality of the air emitted from a pollution source.

Under ambient air standards, the concentration of pollution below the standards is considered acceptable. Where air pollution exceeds the standards, emissions standards are established to reduce air emissions sufficiently to improve air quality to meet and maintain the ambient air quality standard. In addition, where the standards are met, the Clean Air Act includes requirements for some pollutants in order to prevent the deterioration of air quality.

The standards are set based on time of exposure, in recognition that individuals can tolerate higher levels of exposure to pollutants for short periods of time compared to prolonged exposure. Generally, there are two standards for each pollutant: (a) primary standards establish the air quality required to prevent adverse impacts on human health; and (b) secondary standards establish the air quality required to prevent any adverse impacts on vegetation, property, or other aspects of the environment.

EPA has adopted air quality standards for six "criteria pollutants," including ozone, sulfur dioxide, nitrogen dioxide, particulate matter (solid or liquid matter suspended in the atmosphere) that is less than 10 micrometers in diameter (PM10) or less than 2.5 micrometers in diameter (PM2.5), carbon monoxide and lead. If EPA adopts an air quality standard, then DNR must adopt a standard for the pollutant.

DNR adopts primary and secondary ambient air quality standards by administrative rule. Generally, state law requires DNR to adopt the federal standard. However, 2003 Wisconsin Act 118 affects state adoption of federal standards. This is discussed in the Chapter 2 section on state implementation plan development.

In 1987, EPA abolished the primary and secondary standard for total suspended particulate matter, but DNR retained the secondary standard based on public welfare concerns.

EPA believes it does not have jurisdiction under the Clean Air Act to include carbon dioxide as a criteria pollutant. This determination has been challenged in the federal courts and a U.S. Supreme Court decision was pending as of January 1, 2007.

Ozone

Ozone is a primary component of smog, which is a widespread and persistent urban pollution problem. Large industrial facilities, motor vehicles and a variety of small sources that in total result in sizeable emissions, all play a role in ozone formation. Individuals exposed to high ozone concentrations may experience a significant health risk, especially the elderly, young children and people with respiratory difficulties. Health studies have shown exposure to moderate levels of ozone causes increased respiratory problems, such as

asthma and emphysema and leads to permanent changes in lung structure. Ozone can also damage crops, trees, rubber, fabrics and other materials. Air pollution sources do not directly emit ozone, but do emit air contaminants that are precursors to ozone. Ozone is created when volatile organic compounds (VOCs) and nitrogen oxides (NOx) react in hot sunlight to create ozone.

Volatile organic compounds

VOCs are emitted from many sources, including solvents used by industry, household products and motor vehicles. While VOCs are not listed as criteria air pollutants, EPA and state efforts have targeted VOCs for reduction as part of smog control efforts.

Nitrogen oxides

Major sources of nitrogen oxides are power plants, factories, other industrial combustion sources and automobiles. The criteria pollutant nitrogen dioxide is one type of NOx. In addition to being a component of ozone, NOx is a component of particulate matter and acid rain. Acid rain is formed when emissions of sulfur dioxide and nitrogen oxides undergo chemical changes in the atmosphere and return to the earth's surface as acid rain, which causes damage to lakes, forests, other ecosystems and buildings.

Particulate Matter

Particulate matter is also called haze, dust, smoke or soot, and is comprised of tiny pieces of solid particles and liquid droplets that refract light and create haze or brown clouds. Examples of sources of particulate matter include trucks, power plants, industrial processes, crushing and grinding operations, windblown dust, wood stoves, unpaved roads and agricultural plowing.

There are two categories of particulate matter. Inhalable coarse particles, known as PM10, are smaller than 10 micrometers in diameter, and can cause nose and throat irritation and bronchitis, respiratory and cardiovascular problems for susceptible people. (A micrometer is $1/1000^{th}$ of a millimeter. There are 25,400 micrometers in an inch.) Fine particles, known as PM2.5, are 2.5 micrometers or smaller in diameter, and can penetrate more deeply into the lungs compared to larger particles. EPA studies have concluded that fine particles are more likely than coarse particles to contribute to health effects such as premature deaths and hospital admissions, at lower concentrations than allowed by the PM10 standards.

Nonattainment Areas

Areas are designated as "nonattainment" for a specific pollutant if the area fails to meet the NAAQS for the pollutant. Almost all major urban areas experience periods when concentrations of air pollutants exceed one or more NAAQS. Different categories of nonattainment are established for ozone and carbon monoxide based on the degree of the area's pollution problem. Areas that are designated as nonattainment must take actions to reduce emissions of the specific pollutant. The more severe the air quality problem and, therefore, corresponding nonattainment classification, the more control measures a nonattainment area must implement. States must identify and implement additional controls if the measures required by the Clean Air Act do not achieve required standards.

Currently, ozone is the main air contaminant for which Wisconsin counties are in nonattainment. A region is considered in nonattainment for ozone if a violation of the ozone standard occurs within the region. The boundaries of a region can be determined on the basis of demonstrated air quality monitoring data. However, in large metropolitan areas, the boundary of the nonattainment area must include the entire metropolitan statistical area.

Ozone nonattainment area classifications were established by the 1990 Clean Air Act Amendments,

based on the severity of each area's ozone problems. Ten Wisconsin counties are currently designated as being in nonattainmant with the eight-hour ozone standard. They are Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha, Sheboygan, Door, Kewaunee, and Manitowoc counties. The eight-hour standard, the previous one-hour standard, and the status of ozone attainment and nonattainment designations for Wisconsin counties are described in a later section on ozone.

EPA has also established standards and nonattainment designations for PM2.5 (fine particulate matter). The status of particulate matter attainment and nonattainment designations for Wisconsin counties is described in a later section on particulate matter.

The 1990 Amendments establish planning procedures and penalties for states that do not achieve air quality standards by the applicable attainment date. For Wisconsin, this would currently apply to the requirements established for the counties in nonattainment for ozone. If the state's nonattainment areas fail to attain the national ozone standard by the required deadline, DNR must submit a revised state implementation plan prescribing control measures necessary to meet the air quality standards, including measures prescribed by EPA. Areas that fail to attain the air quality standards by the required time may be recategorized, or "bumped-up," to a higher nonattainment classification with additional mandatory requirements.

State Implementation Plan Requirements

States are required to achieve compliance with national ambient air quality standards through the development of, and revisions to, a "state implementation plan" (SIP). The SIP is a series of documents and regulations that identify, in great detail, the measures a state is taking to control emissions of regulated pollutants. The SIP must also demonstrate how these measures will allow the state to attain national ambient air quality standards by specified deadlines for each classification of nonattainment. Areas with worse air quality classification will have to implement more controls. As a result, Wisconsin's SIP generally places more stringent controls on ozone pollutant emissions in the state's ozone nonattainment counties.

The Clean Air Act contains specific deadlines for submission of the plans and EPA approval. If the state does not meet required deadlines, the state can be subject to further federal requirements and eventually sanctions. The SIP must include the following general provisions.

1. Enforceable emissions limitations, control requirements, and schedules to achieve compliance with the Act.

2. Systems to monitor, compile and analyze data on air quality.

3. A permit program and a fee schedule to cover the costs of permitting.

4. Provisions that prohibit emissions which contribute significantly to nonattainment of an air quality standard or cause significant deterioration of air quality or visibility.

5. Applicable controls on interstate and international air pollution.

6. The assurance of adequate personnel, funding and authorities under state law to implement and enforce the SIP.

7. The required installation of monitoring equipment by stationary sources, reports on the monitored emissions and correlation of the monitored emissions to emission limitations.

8. Enforcement authority and procedures.

9. Provisions providing for the revision of the

plan as required.

10. Requirements for consultation with local governments on applicable provisions and public notice if air pollutant levels exceed standards.

11. Air quality modeling to predict the effect of emissions on air quality standards.

Sanctions for Deficient State Implementation Plans

If a state that is required to submit a SIP does not submit a SIP, or submits a SIP that is judged to be inadequate to achieve attainment of the standards, EPA may impose sanctions on the state. If a state does not rectify its SIP situation and sanctions are enacted, EPA develops a federal implementation plan in order to move the state toward attainment. In general, if EPA finds a SIP submittal incomplete, the state is given eighteen months to correct the submittal before federal sanctions begin, and sanctions would apply until the plan deficiency is corrected.

Sanctions include: (a) a requirement that new industrial projects provide emission offsets at a ratio of up to two tons of emission reductions to one ton of new emission increases; (b) the withholding of federal highway aids, except for: (1) projects principally for safety improvements and (2) a specific list of project types which have a secondary impact of reducing vehicle emissions; and (c) EPA implementation and enforcement of a federal implementation plan (FIP) in place of the state plan or portions of plan which is determined to be deficient.

Types of Pollutant Sources

Pollutant sources are generally grouped into categories based on the characteristic of the pollutant source. The Clean Air Act establishes different control mechanisms for each type of source, and in some cases, subdivides the source for purposes of setting control requirements. These categories of pollutant sources include: (a) stationary sources, which generally include fixed sources of pollution, such as factories, power plants, gas stations and other business facilities; (b) mobile sources, which generally include any motor vehicle equipment that is capable of emitting any air pollutant while moving, such as automobiles, buses, trucks and motorcycles; and (c) area sources, which encompass all other sources too small and numerous to regulate individually, generally including paints, solvents, asphalt paving, bakeries, autobody finishing shops, degreasing supplies, farm equipment, pesticides, small graphic arts shops, and consumer products. Area sources are regulated as a group. Nonroad engines can either be mobile or area sources and include industrial engines powered by gasoline, liquid propane gas or compressed natural gas, off-road vehicles, snowmobiles, all-terrain-vehicles and diesel marine engines.

Stationary Sources

Many of the Clean Air Act requirements for stationary sources apply only to those facilities that emit pollutants greater than a certain quantity. These larger emitters of pollutants are referred to as major sources and often emit substantial quantities of sulfur dioxide and nitrogen oxide. The definition of a major source varies with the pollutant and the severity of the pollution in the area in which the facility is located. For example, a facility emitting 50 tons per year of a pollutant in a highly-polluted area may be a major source subject to regulation, but the same facility located in a less polluted area may not have to meet as stringent regulatory requirements as the same source would have to meet in a nonattainment area. Minor stationary sources include all facilities that are not categorized as a major source. Major sources are the primary facilities subject to the requirements of the Act, although provisions exist for the application of restrictions to minor sources in certain cases.

A primary requirement for existing stationary sources in nonattainment areas is the installation or

retrofit of equipment with emission controls. A determination of what controls are required may be made on a case-by-case review of each facility. However, EPA has adopted guidelines setting a generic method of controls that will meet the requirements for specified industrial categories. The facilities which must install control equipment are determined based on: (a) the amount of pollution emitted by the facility; (b) the severity of the pollution problem in the nonattainment area; and (c) the industrial category of the facility. The emission limits are referred to as reasonably available control technology (RACT).

Mobile Sources

Despite current emissions controls, mobile sources of air pollution continue to be the largest single source of ozone-forming pollutants and carbon monoxide emissions. They account nationally for approximately one-half of ozone-forming pollutants and 90% of carbon monoxide in urban areas.

Vehicular pollution can be reduced through: (a) purifying the fuel; (b) reducing exhaust and evaporative emissions; (c) reducing vehicle travel; or (d) improving vehicle flow on the highway system. The Clean Air Act includes requirements for fuel content in polluted areas, new emission standards for vehicles and transportation control measures. Vehicular pollution control provisions include: (a) more stringent emission standards for automobiles, trucks and urban buses; (b) clean-fueled vehicle standards for fleets and cars in the most polluted areas; (c) required use of reformulated gasoline; and (d) vehicle emission inspection and repair requirements. Clean fuels, to be used in clean-fueled vehicle fleets, may include methanol, ethanol, or other alcohols (including any mixture containing 85% or more by volume of alcohol with gasoline), reformulated gasoline, diesel, natural gas, liquified petroleum gas, hydrogen or electricity.

Under federal law, in the most severely polluted areas, gasoline sold for vehicle use must be modified to reduce emissions. The fuel required is dependent on the pollutant of concern. Federal law requires use of reformulated gasoline (RFG) in areas of the state experiencing significant ozone problems. The fuel must provide specified reductions in emissions of toxic air pollutants year round and summertime reductions in VOCs and NOx. The components of RFG must meet certain refining and processing requirements.

RFG contains oxygenates, which in the past were additives such as ethanol or ethers such as methyl tertiary butyl ether (MTBE) as a method of reducing carbon monoxide and toxics. Effective August 1, 2004, Wisconsin banned the use of MTBE as the oxygenate component in reformulated gasoline sold in the state. EPA subsequently revoked the requirement that RFG must contain oxygenates (additives) such as ethanol or MTBE.

In Wisconsin, the six counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha are subject to the reformulated gasoline requirements. The only way the requirement would be removed for these counties would be if Congress amends the Clean Air Act because the Clean Air Act amendments specifically require the use of RFG in the Milwaukee-Racine Consolidated Metropolitan Statistical Area. (The RFG requirement will not automatically end when the counties achieve attainment of the ozone standard.)

Phase 1 reformulated gasoline requirements were effective in January, 1995. Phase 2 RFG requirements were effective in January, 2000, and required further refinement of the components of reformulated gasoline to provide additional reductions in ozone pollutants. The Department of Commerce is responsible for testing the content of gasoline to determine if it meets federal requirements.

Under the eight-hour ozone standard designations effective in June, 2004, the six counties in severe nonattainment of the prior one-hour standard, and subject to requirements to use RFG, were designated as being in moderate nonattainment of the

eight-hour standard. Sheboygan County was the only additional county designated as in moderate nonattainment of the eight-hour standard. The Governor could request EPA approval to make the sale of reformulated gasoline mandatory in Sheboygan County. (As of January 1, 2007, the Governor had not done so.)

The Clean Air Act Amendments of 1990 require certain centrally-fueled fleets of ten or more motor vehicles to operate clean fuel vehicles and use clean fuels. This generally involves the use of vehicles fueled with alternatives to petroleum such as natural gas and electricity.

Gasoline station operators located in moderate or worse ozone nonattainment areas are required to install gasoline vapor recovery systems on dispensing equipment (referred to as stage II vapor controls). Vapors emitted include toxic air pollutants, such as benzene, in addition to ozone-forming pollutants. Facilities selling less than 10,000 gallons per month and independent marketers selling less than 50,000 gallons per month are exempt.

The required installation of stage II controls was phased-in over 1993 through 1995. The state submitted the elements of its vapor recovery program to EPA as part of the state's 1992 SIP requirements. DNR's compliance program enforced the requirements that owners or operators install the required stage II equipment. DNR's current compliance efforts focus on the proper operation and maintenance of existing required systems.

For moderate or worse ozone nonattainment areas, the Clean Air Act requires the state to demonstrate that current vehicle usage, emissions, congestion levels and other factors are consistent with the levels used by the state for the purpose of demonstrating future attainment of air quality standards. If the current levels exceed the levels projected, then the state must implement transportation control measures as part of their overall air quality plan to reduce emissions.

EPA adopted regulations for heavy-duty diesel engines for highway vehicles that went into effect with model year 2007 vehicles that came into the market in mid-2006. The EPA also adopted regulations effective June, 2006, that required the use of ultra-low sulfur diesel fuel in highway diesel fuel. The fuel must contain levels of sulfur 97 percent less than previous levels (a decrease from 500 parts per million to 15 ppm), and became available at gas stations in October, 2006.

Area Sources

The Clean Air Act does not include specific statutory requirements or deadlines that area sources must meet, except as necessary to obtain required emission reductions and demonstrate attainment. EPA establishes most area source controls. However, states have implemented area source controls as part of their emission reduction ozone attainment plans submitted to EPA.

EPA has regulated the volatile organic compound content of paints, stains, and architectural coatings used by area sources. The regulations vary depending on the type of coating and source using the coating.

Nonroad Engines

EPA adopted regulations for non-road engines, beginning in 1995, which affect a broad range of engine types, including recreational vehicles, industrial equipment, lawn and garden equipment, off-highway vehicles, construction equipment and farm equipment. In Wisconsin, these regulations primarily affect small engine manufacturing plants.

In May, 2004, EPA adopted final rules to place pollution controls on heavy-duty nonroad diesel engines. The rules will limit emissions of nitrogen oxides, hydrocarbons, carbon monoxide, and sulfur. Requirements and the implementation timeline vary depending on the type of engine or vehicle. The phase-in of the engine requirements will begin with the smallest engines for model year 2008, sold beginning in mid-2007. The emissions standards will apply to all new engines sold in the United States

and any imported engines manufactured after the standards begin. These engines include certain engines over 25 horsepower such as those used in forklifts, electric generators, airport baggage transport vehicles, certain farm and construction uses, warehouses, and ice-skating rinks. The sulfur content of fuel for these engines would drop from approximately 3,000 parts per million to 500 parts per million in 2007 and 15 parts per million by 2010 for most off-road applications. Some of the largest engines and locomotives would have a few additional years to comply.

EPA is phasing in emission standards for the exhaust of recreational vehicles such as snowmobiles, off-highway motorcycles and all-terrain-vehicles, beginning with model year 2006 through 2012 vehicles. Recreational marine diesel engines over 50 horsepower used in recreational boats have to begin meeting phased emissions standards in 2006 through 2009, depending on the size of the engine.

Ozone

Most EPA and state efforts to date have focused on reducing ozone emissions because of the widespread problem with smog in the United States.

Ozone Standards

In the 1990s, EPA established a one-hour ozone standard of a concentration of 0.12 parts per million (ppm). Violation of the standard would determine whether a region is in nonattainment. An area would be considered in violation of the one-hour standard if the number of days in which the standard was exceeded exceeds three during a three-year period.

The 1990 Amendments establish categories of ozone nonattainment based on the severity of the pollution problems. The following six Wisconsin counties were designated as being in severe nonattainment of the national one-hour ozone standard: Kenosha, Milwaukee, Ozaukee, Racine, Washington and Waukesha. Under the one-hour standard, Manitowoc County was designated as a moderate ozone nonattainment area. Door County was designated as a "marginal rural transport" county, and was not required to meet certain requirements placed on the other ozone nonattainment counties. Effective June 16, 2003, EPA redesignated Manitowoc and Door counties as being in attainment of the one-hour standard. Walworth, a marginal nonattainment county, and Kewaunee and Sheboygan, moderate nonattainment counties, were redesignated as in attainment in August, 1996.

EPA adopted an eight-hour ozone standard in July, 1997. The standard is a concentration of 0.08 ppm or 80 parts per billion (ppb). An area is considered to be violating the eight-hour standard if the average of the fourth highest eight-hour concentrations during each of three consecutive years is equal to or greater than 0.085 ppm or 85 ppb. (The 0.085 ppm is due to the rounding method used by EPA). In response to a court challenge, the United States Supreme Court issued a decision in February of 2001 that upheld the eight-hour standard.

EPA issued final nonattainment designations for the eight-hour ozone standard on April 15, 2004. There are 10 counties in Wisconsin that are designated as being in nonattainment of the national eight-hour ozone standards. These counties are: (a) Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties are included in one moderate nonattainment area; (b) Sheboygan county was designated as a separate moderate nonattainment area; and (c) Door, Kewaunee, and Manitowoc counties were each designated as separate basic nonattainment areas (the lowest category of nonattainment).

When EPA designated the eight-hour nonattainment areas, it revoked the one-hour standard, effective June 15, 2005. EPA was sued by industry and environmental groups on its designation of eight-hour nonattainment areas and on its imple-

mentation rule for the eight-hour standard. As of January 1, 2007, EPA was reconsidering some parts of the rule related to new source review and requirements related to electric generating units, and other aspects of the suit were pending.

Ozone Attainment Deadlines

Federal deadlines to achieve compliance are established to provide areas with the greatest pollution problem the longest time to reduce those pollution levels.

States were required to submit state implementation plans for the one-hour ozone standard by December, 2000. (The Wisconsin plan was submitted in December, 2000, and approved in October, 2001.) Since EPA revoked the one-hour ozone standard when it designated eight-hour ozone nonattainment areas, prior one-hour attainment deadlines no longer apply.

States will have to submit state implementation plans for the eight-hour ozone standard by June, 2007. Attainment will be required in 2009 for the basic nonattainment areas and in 2010 for the moderate nonattainment areas.

Particulate Matter

Particulate matter standards address PM2.5 (particulate matter 2.5 micrometers or less) and PM10 (particulate matter less than 10 micrometers). EPA made initial designations of PM10 nonattainment areas in 1991, designating all of Wisconsin as in attainment, and has not changed the Wisconsin designation for PM10 since then.

In 1997, EPA established PM2.5 standards. In December, 2004, EPA designated all of Wisconsin as being in attainment of the 1997 PM2.5 standards. Thus, Wisconsin did not have to prepare a state implementation plan for meeting the 2004 PM2.5 designation.

In September, 2006, EPA revised national ambient air quality standards for particulate matter. EPA reduced the PM2.5 24-hour average threshold from the 1997 standard of 65 micrograms per cubic meter to 35 micrograms per cubic meter. EPA retained the 1997 PM2.5 annual average standard of 15 micrograms per cubic meter. EPA retained the 1997 PM10 24-hour average standard of 150 micrograms per cubic meter. EPA revoked the PM10 annual average standard of 50 micrograms per cubic meter.

EPA requires states to establish monitoring sites and collect data on fine particulate matter. EPA also specifies the types of data that states must collect and that EPA will use to determine whether an area is to be designated as in nonattainment of the standard. For example, an area will meet the 24-hour standard if the 98th percentile of 24-hour PM2.5 concentrations in a year, averaged over three years, is less than or equal to the standard of 35 micrograms per cubic meter.

EPA established a schedule for the designation of areas in nonattainment of the September, 2006, PM2.5 standards. States are required to submit recommendations to EPA by November, 2007, for areas to be designated as attainment (meeting the standards) and nonattainment (violating the standards). EPA plans to make designations of PM2.5 nonattainment areas in November, 2009.

States with areas that are designated in nonattainment of the 2006 PM2.5 standard will need to submit a state implementation plan by April, 2013 (approximately three and one-half years after initial EPA designation), that describes steps the state will take to reduce PM2.5 emissions, and come into attainment of the standard. States would be required to meet the standards two years after submitting the state implementation plan, or in approximately 2015.

In December, 2006, DNR indicated that air

monitors in several counties in the eastern part of the state have registered data that may exceed the September, 2006, EPA PM2.5 24-hour standards. However, it is too early to determine which, if any, areas will be included in Wisconsin's fall, 2007, recommendation to EPA of potential PM2.5 nonattainment areas in the state.

EPA has issued several rules that states must follow as part of the process to meet the standards. The federal Clean Air Interstate Rule (CAIR) is intended to reduce interstate transport of ozone and fine particulate matter, by reducing emissions from power plants in the eastern United States. EPA regional haze regulations are intended to reduce emissions affecting air quality in national parks and require states to develop a Best Available Retrofit Technology (BART) rule that will reduce emissions from certain large stationary sources.

Air Toxics

EPA administers a separate regulatory framework for toxic substances not covered by national ambient air quality standards. Toxic substances can potentially cause significant effects at low concentrations in localized instances. They can cause or are suspected of causing cancer or other serious human health problems, or cause adverse environmental and ecological effects. Air toxics include certain heavy metals, chemicals and pesticides.

EPA is required to regulate 188 hazardous air pollutants (HAPs). Toxics are regulated through a two-phase strategy. The first phase is based on technology standards and requires industries to install maximum achievable control technology (MACT). The second phase of control will require facilities to adopt additional controls if the facilities have emissions remaining after MACT standards have been met which will create potentially harmful concentration of air toxics, termed residual risk.

Wisconsin actions related to adoption of emission controls on toxic air contaminants are discussed in the next chapter on state activities.

Required Controls

EPA has identified categories of sources that emit HAPs. Major sources within the categories are subject to regulation. A major source is a facility that may emit ten tons per year of any single HAP, or 25 tons per year of any combination of HAPs. In certain cases, facilities with lower emissions such as dry cleaners may be regulated. Requirements under an area source program will reduce toxic air emissions of the thirty most serious urban area source pollutants. Standards are also set for municipal waste incinerators and facilities handling chemicals whose accidental release would threaten public health or the environment.

EPA completed promulgation of maximum achievable control technology (MACT) standards for all major sources of the 188 HAPs in 2005. (The original deadline was 2000.) Facilities must generally achieve compliance within three years of promulgation of a standard. The last compliance date for major sources is October 1, 2008.

EPA is under a court order to complete standards for 50 area source categories by June 15, 2009. Facilities will be required to achieve compliance within three years. Examples of area source categories that will have to meet these new regulations include sources with industrial boilers, iron foundries, stationary combustion engines, plating and polishing operations, and surface coating of plastic parts.

Residual risk standards are to be set within eight years after a MACT standard is established for a source category (nine years after the first round of MACT standards). The first MACT standards were completed in the fall of 1993. As of the fall of 2006, EPA has issued residual risk standards for coke oven batteries, perchloroethylene dry cleaning solvent, industrial cooling towers, gasoline distribu-

tion, ethylene oxide sterilizers, and magnetic tape, and proposed a residual risk standard for hazardous organics. Of the six promulgated residual risk standards, two require further controls by sources and four do not.

While the MACT standards require the maximum achievable degree of emissions reduction, technological feasibility and cost are considered when setting the standards. Stricter controls are required for new facilities than for existing facilities. The controls may involve: (a) changes in equipment, design or operational methods; (b) process changes; (c) the substitution, reuse or recycling of materials; (d) work practice changes; (e) collection, capture, or treatment of pollutants released from a process, stack or other points; or (f) operator training and certification. For example, reductions will likely be achieved by identifying and controlling routine small leaks of substances, involving valves, flanges, pumps, compressors, caps and seals.

EPA directly administers an early reduction program that allows an existing facility to receive a six-year extension to meet MACT standards if the facility achieves a 90% reduction in emissions (95% for hazardous particulates) prior to the time that the standard is proposed, for a total compliance period of ten years. No facilities in Wisconsin have yet opted for an extension under this program.

Accidental Releases

EPA administers a regulatory program to address accidental or catastrophic releases of highly toxic air emissions. EPA has identified a list of at least 100 extremely hazardous air pollutants, based on: (a) the severity of acute health effects; (b) the likelihood of accidental releases; and (c) the potential magnitude of human exposure. While DNR notifies the industrial facilities in the state of the federal regulatory requirements for the pollutants on the federal list, EPA administers the regulatory aspects of the program. Facilities are required to identify possible hazards and develop risk management plans to be submitted to EPA. A federal Chemical Safety and Hazard Identification Board investigates accidents and makes recommendations regarding accident prevention.

Urban Air Toxics Strategy

EPA completed a final urban air toxics strategy in July, 1999, that identified 33 priority air toxic pollutants (from the larger list of 188 HAPs) that pose the greatest threat to public health in urban areas. EPA released a final workplan for implementing an air toxics strategy in October, 2001. As of December 1, 2006, EPA was in the process of developing a final air toxics strategy and would use it to develop standards for 50 area source categories required under the court order by June 30, 2009.

The urban air toxics strategy will target reductions in the emission of these pollutants in urban areas from major industrial sources, smaller stationary sources and cars and trucks. The strategy describes activities that will be undertaken to set emission standards for HAPs, develop local and community-based initiatives to focus on specific pollutants and community risks, conduct additional monitoring and research and educate and obtain input from affected people about the strategy.

Permits

The Clean Air Act Amendments of 1990 require sources that emit air pollution to obtain a construction (new source) permit before beginning construction of the air pollution source and an operation permit to operate the source. A permit includes information about which pollutants are being released, establishes detailed limits on the emissions of air contaminants, establishes a maximum increase over a baseline of emissions and includes related requirements such as monitoring, recordkeeping and reporting. The permit incorporates requirements of the state implementation plans into specific requirements for an individual facility.

Types of activities that may require a permit include: (a) use of adhesives, paints, inks or other solvents that cause emissions of VOCs and HAPs; (b) fuel use (excluding electricity) that results in emissions of carbon monoxide, sulfur dioxide, NOx and some HAPs; and (c) grinding, sanding, welding, material handling or other activities that create dust or fumes that emit particulate matter and some HAPs. Types of businesses that may need a permit include: (a) metal parts coating or autobody refinishing; (b) food products and nondurable goods; (c) chemical, rubber and plastic products; (d) paper, printing and publishing; (e) lumber, wood products and wood furniture; (f) primary metals industry; (g) health services; (h) combustion sources; and (i) road paving material production.

EPA must administer an operation permit program if the state fails to do so. Wisconsin administers an EPA-approved operation permit program that became effective in April, 1995. A federal operation permit is required for all facilities defined as major sources, many sources subject to a federal air toxics regulation, and many facilities subject to federal new source standards. Generally, major sources for operation permits include facilities that have the potential to emit any one of the following: (a) over 100 tons per year of any criteria pollutant or 25 tons per year of VOCs in severe nonattainment areas; (b) ten tons per year of any federal HAP; or (c) 25 tons per year of all combined federal HAPs.

The federal construction permit requirements vary depending on whether or not the facility is located in a nonattainment area. Facilities in nonattainment areas must meet more stringent standards. In areas that currently meet air quality standards, requirements are designed to prevent industrial growth from causing a significant deterioration of the air quality. Regulated major source facilities are required to install equipment with emission controls being generally used by industry for new construction. Generally, major sources for construction permits in areas which meet the air quality standards include facilities that have the potential to emit over 250 tons per year of any criteria pollutant, or over 100 tons per year in specified source categories.

Major new sources of air pollutants in nonattainment areas are subject to more stringent new source review requirements. Facilities must install equipment with emission controls based on a "lowest achievable emission rate" (LAER) standard. This standard is the most stringent control technology and is determined by: (a) the most stringent emission limitation achieved in practice within an industry; or (b) the most stringent emission limit contained in any state plan. In addition, facilities in nonattainment areas must provide specified offsets to proposed increased emissions. Offsets are emission reductions obtained from other sources of air pollution in the nonattainment area. The Clean Air Act Amendments of 1990 apply these requirements to smaller sources of pollution.

Certain industries are subject to emission limits for specific pieces of equipment. EPA is authorized to identify categories of industrial pollutant sources and establish specific emission standards for equipment used by that category. The emission standards are based on the best system of emission reduction achievable, taking into account: (a) the cost of achieving the reduction; (b) energy requirements; and (c) non-air quality health and environmental impacts. As EPA promulgates standards, DNR is required by state law to adopt those standards as administrative rules. These equipment standards are incorporated into air permits. The standards are referred to as new source performance standards.

Acid Rain

Acid rain is formed when emissions of sulfur dioxide and nitrogen oxides undergo chemical changes in the atmosphere and return to the earth's surface as acid rain, causing damage to lakes, forests, other ecosystems, and buildings. Power

plants are estimated to account for approximately three-quarters of sulfur dioxide and one-third of nitrogen oxide emissions. Emissions of these substances often travel hundreds of miles.

The Clean Air Act Amendments of 1990 focus on reducing national power plant emissions of sulfur dioxide from approximately 20 million to ten million tons annually in two phases: the first phase effective in 1995 and the second in 2000. A power plant is allotted emissions allowances equal to the number of tons of sulfur dioxide it is allowed to emit. Power plants are given the option to reduce their emissions or acquire allowances from other facilities to achieve compliance. An emissions cap requires the maintenance of achieved reductions.

Phase I requirements apply to power plants which have a generating capacity and emissions rate above specified levels. Each regulated plant holds one emissions allowance for every ton of sulfur dioxide emitted each year, beginning January 1, 1995. The Amendments established the number of emissions allowances for 111 affected plants, including six Wisconsin plants (Edgewater, La Crosse/Genoa, Nelson Dewey, North Oak Creek, Pulliam and South Oak Creek). Plants that reduce emissions below the levels established in the Clean Air Act will create excess allowances. The facilities may use the excess allowances as follows: (a) retain, or bank, them to meet future electricity demand or for use during Phase II; (b) use the allowances at another plant under common ownership; or (c) sell them to another electric utility or other buyer.

During Phase II, effective January 1, 2000, the plants regulated under Phase I are required to further reduce sulfur dioxide emissions, and in general, all power plants will be subject to emissions allowance requirements. This phase establishes an annual cap on emissions nationally at 8.9 million tons, to be distributed by EPA, although provisions exist for EPA to distribute an additional 0.53 million tons in bonus allowances for a 10-year period. Generally, new plants will need to obtain allowances from existing plants or from EPA sales or auctions, although certain new plants will be allocated limited allowances in an initial EPA distribution. Utilities may obtain additional emissions allowances from EPA by following EPA requirements.

The federal acid rain program also limits nitrogen oxides emissions. Limitations on nitrogen oxides emissions are based on the amount of fuel put into a boiler. The specific numerical nitrogen oxides limit is also dependent on the technical design category of the boiler.

Stratospheric Ozone Depletion

The federal Clean Air Act Amendments of 1990 require the phase-out of production and sale of chemicals that deplete stratospheric ozone. Federal stratospheric ozone regulations are implemented by EPA and are not delegated to the states. Some states, including Wisconsin, have implemented programs to protect stratospheric ozone.

While Clean Air Act regulations work toward reducing levels of ground-level ozone, and resulting detrimental health effects, ozone in the stratosphere (or upper atmosphere, approximately six to 30 miles above the earth) is considered beneficial. Stratospheric ozone filters the sun's harmful ultraviolet radiation and is considered a factor in potential global climate change. Depletion of stratospheric ozone increases ultraviolet radiation, and has been associated with several harmful health effects.

Chlorofluorocarbons (CFCs) and several other chemicals have been identified as a cause of the destruction of the stratospheric ozone layer. These chemicals are generally used: (a) in refrigeration and air conditioning; (b) in foam packaging and insulation; (c) as solvents or aerosol propellants; (d) for soil fumigation; and (e) for produce sterilization. CFCs drift into the upper atmosphere and release chlorine that destroys the ozone layer.

The 1990 Amendments and subsequent federal law changes phased out the production and sale of

most Class I chemicals by 1996, and the rest by 2001. Class I chemicals include, at a minimum, CFCs, halons, methyl chloroform, carbon tetrachloride and methyl bromide. In general, Class II chemicals will be restricted beginning in 2015 with a complete ban effective in 2030. The primary Class II chemical category is hydrochlorofluorocarbons (HCFCs), commonly used as a refrigerant, and considered significantly less damaging to the upper ozone layer than CFCs.

Since 1992, Class I and Class II substances must be recaptured and recycled. It is prohibited to knowingly vent refrigerants from household appliances, commercial refrigerators and air conditioners. Since 1994, substances contained in bulk in products must be removed prior to disposal of the products, and the products containing those substances must be equipped to facilitate recapture of the substances.

The 1990 Amendments banned nonessential CFC-containing consumer products, beginning in 1992 or 1994 depending on the type of product. Examples of banned products include party streamers, noise horns, noncommercial cleaning fluids for electronic and photographic equipment, aerosol products or other pressurized dispensers and plastic foam products. Labeling is required for all containers containing products made with Class I or Class II substances.

Mercury

Mercury is a toxic, persistent pollutant that accumulates in the food chain. Mercury emissions in the air fall onto the earth's surface through rain and snow and enter lakes, streams and other water bodies. Once it reaches the water, mercury turns into a toxic form that concentrates in fish and animal tissues. People are exposed to mercury primarily by eating fish. EPA has acted to cut emissions of mercury from large industrial sources.

EPA promulgated a clean air mercury rule, effective May 18, 2005, that, for the first time, established federal mercury emission control requirements for new and existing coal-fired power plants. The rule establishes standards of performance for power plants, and creates a market-based cap-and trade program. The rule includes phased deadlines of 2010 and 2018 for meeting a declining cap on mercury emissions that is set for each state. New coal-fired power plants, with construction that started on or after January 30, 2004, have to meet a standard of performance and the emission caps set for each state.

States were required to submit a plan to EPA by November 17, 2006 (18 months after promulgation of the rule), which described how the state would implement and enforce the mercury emission reduction requirements. On December 8, 2006, EPA issued a finding that 21 states had submitted plans by the deadline, and EPA will determine which of the plans are approvable. The other 29 states and three territories, including Wisconsin, did not submit their plans by the November 17, 2006, deadline. There are no sanctions for states that did not submit a plan by the deadline. The Clean Air Act requires EPA to impose a federal plan to implement the rule if a state does not submit a plan. DNR indicates that EPA has said it will begin the process of implementing a federal plan in the fall of 2007.

A lawsuit was filed by fifteen states, including Wisconsin, five environmental groups, and four Indian Tribes, to challenge the cap and trade approach in the mercury emission reduction rule, and to challenge EPA's decision not to regulate mercury emissions from power plants as hazardous air pollutants. As of January, 2007, the issue was in litigation.

Wisconsin action related to the federal and state mercury emission reduction rules is described in the next chapter on state air management activities.

CHAPTER 2

STATE AIR MANAGEMENT ACTIVITIES

DNR Air Management Organizational Structure

The implementation of air quality programs in Wisconsin is conducted by DNR's Bureau of Air Management in the Air and Waste Division, with support from staff in the Department's other programs. The Bureau of Air Management consists of seven sections in the central office in Madison. Air management staff in the five DNR regions perform permit review and issuance for new construction and existing sources, stack emission test plan approval, compliance inspections and enforcement, complaint investigation, inspection of asbestos demolition and renovation and industrial source emission inventory.

The seven sections are: (a) the Compliance and Enforcement Section coordinates the program's efforts to ensure that industry and others comply with clean air laws; (b) the Emission Inventory and Small Source Section manages DNR's process of obtaining annual reports of air emissions, and coordinates DNR's efforts related to asbestos abatement, refrigerant recovery, stage two vapor recovery and small sources emissions; (c) the Environmental Analysis and Outreach Section analyzes air quality issues, including air toxics, health issues and air quality, and provides public information and outreach; (d) the Monitoring Section plans and executes a program of monitoring air quality statewide; (e) the Permits and Stationary Source Modeling Section writes construction and operation permits for air pollution sources, negotiates permit conditions with industry representatives, and does computer modeling to determine how air pollutant emissions will affect air quality; (f) the Regional Pollutant and Mobile Source Section develops state implementation plans for major air pollutants such as ozone and fine particulate matter and develops plans and programs related to motor vehicles and motor vehicle fuels; and (g) the Management Section prepares budgets and workplans, administers grants, provides rule oversight, and handles finance, data and personnel management.

The air management program also has eight statewide standing teams to ensure consistency, monitor and evaluate program performance, involve DNR staff statewide and make policy recommendations related to the specific functions of the team. The teams include: (a) construction (new source review) permits; (b) operation permits; (c) compliance and enforcement; (d) stationary source emission inventory; (e) stationary source modeling; (f) air modeling field operations; (g) air monitoring technical support and data management; and (h) maximum achievable control technology (MACT).

DNR convenes a 16-member Clean Air Act Task Force to obtain input from potentially affected parties and agencies involved in the state's effort to meet federal requirements. The task force is appointed by the Secretary of DNR and is made up of four members each from the following areas: local government; industry and labor; transportation; and environment, health and civic. The Task Force also includes the Permits and Fees Committee. In addition, other committees are sometimes convened with DNR staff and interested persons that advise the committees on specific issues. The Clean Air Act Task Force and its committees provide technical advice to the Natural

Resources Board on the state's options in meeting federal requirements relating to air quality issues.

DNR Funding

Appropriations

DNR is authorized a total of 176.5 positions for air management activities in 2006-07. Approximately half of the staff is located in the Madison central office and the other half is in the DNR regional offices (located in Eau Claire, Green Bay, Madison, Milwaukee, Rhinelander and Spooner). Table 1 lists funding and positions authorized for DNR air management programs. Within the Air and Waste Division, the Bureau of Air Management is authorized 159.75 permanent positions to conduct monitoring, permitting, planning and compliance activities. The federal clean air grants shown in the table include 3.0 project positions that are scheduled to end June 30, 2007, for a total of 162.75 positions in the Bureau. The Bureau of Cooperative Environmental Assistance (located in the Division of Customer and Employee Services prior to 2005-06) is authorized 3.0 positions from stationary source air emission fees. The Air and Waste Division is authorized 3.0 positions from stationary source air emission fees for divisionwide program management.

The Division of Enforcement and Science is authorized 2.5 positions from air funding sources for law enforcement. The Division of Customer and Employee Services (formerly known as the Division of Administration and Technology and the Division of Customer Assistance and External Relations) is authorized 0.50 position from air funding sources for legal, administrative and information technology services, and is authorized 4.75 positions from air funding sources for customer service and licensing, and communication and education strategy.

Table 1: 2006-07 DNR Air Management Authorized Funding and Positions

Source	Fund Source	Funding	Positions
Air and Waste Division, Bureau of Air Management			
Program Revenues			
Stationary Source Emission Fees	PR	$7,821,800	77.50
State Permit Source Fees	PR	1,181,400	10.00
New Source Construction Permit Fees	PR	2,832,300	19.50
Asbestos Abatement Fees	PR	455,400	2.00
Ozone-Depleting Substance Fees	PR	132,700	2.00
Other Program Revenues	PR	462,600	0.00
Federal Clean Air Grants*	FED	4,178,500	46.00 **
Petroleum Inspection Fund	SEG	1,355,400	5.00
General Fund	GPR	46,600	0.75
Subtotal Bureau of Air Management		$18,466,700	162.75
Air and Waste Division, Bureau of Cooperative Environmental Assistance			
Stationary Source Emission Fees	PR	225,900	3.00
Federal Clean Air Grants	FED	16,800	0.00
Air and Waste Division, Management			
Stationary Source Emission Fees	PR	416,200	3.00
Division of Enforcement and Science			
Stationary Source Emission Fees	PR	92,800	1.00
Federal Clean Air Grants	FED	131,400	1.50
Division of Customer and Employee Services			
Stationary Source Emission Fees	PR	428,800	3.75
Federal Indirect Cost Reimbursement	FED	317,900	0.00
Petroleum Inspection Fund	SEG	798,600	1.50
Total DNR Air Management Funding		$20,895,100	176.50

* The federal clean air grant amounts include funding from the U.S. Environmental Protection Agency and the U.S. Department of Homeland Security.

** Includes 3.0 project positions.

Revenue Source Overview

The state's air management programs are funded from several sources, as shown in Table 2. Revenues for DNR air management programs from all sources (including state revenues and federal grant allocations) were approximately $19.5 million in 2004-05 and $18.5 million in 2005-06. Almost 45% of revenues in the two-year period come from stationary source emissions tonnage fees. Almost 57% of air program positions are funded from air emission tonnage fees. Emission tonnage fees, along with federal Clean Air Act grants, the

Table 2: Revenues for DNR's Air Management Programs - 2004-05 and 2005-06

Source	2004-05 Revenues	2004-05 % of Total	2005-06 Revenue	2005-06 % of Total	Total 2004-05 and 2005-06	% of Total
Stationary Source Emission Fees*	$9,618,300	49.4%	$7,176,200	38.8%	$16,794,500	44.2%
Federal Clean Air Act Grants	4,760,200	24.4	5,913,700	32.0	10,673,900	28.1
Petroleum Inspection Fund	2,077,300	10.7	2,140,300	11.6	4,217,600	11.1
Permit Review and Enforcement Fees	2,147,200	11.0	1,746,800	9.5	3,894,000	10.3
Asbestos Abatement Fees	265,800	1.4	324,400	1.8	590,200	1.6
State Permit Stationary Source Fees	0	0.0	262,300	1.4	262,300	0.7
Ozone-Depleting Substances Fees	109,500	0.6	115,900	0.6	225,400	0.6
General Purpose Revenue	50,900	0.2	45,000	0.2	95,900	0.3
Other Program Revenues	451,000	2.3	758,500	4.1	1,209,500	3.2
	$19,480,200	100.0%	$18,483,100	100.0%	$37,963,300	100.0%

*Additional emission fee revenues were collected by DNR and transferred to the Department of Commerce for administration of the Small Business Clean Air Assistance Program. These transfers totaled $220,700 in 2004-05 and $212,600 in 2005-06, for 2.0 positions.

petroleum inspection fund and permit review fees account for over 94% of program funding. DNR also collects other air pollution fees related to asbestos inspections and the regulation of ozone depleting refrigerants.

Stationary Source Emissions Tonnage Fees

The Clean Air Act Amendments of 1990 require states to assess fees based on the tonnage of emissions generated by a facility. The fees may only be used for the implementation of Clean Air Act provisions. States must demonstrate to EPA that the fees collected on emissions are adequate to cover the state's program costs associated with reducing the emissions of facilities being assessed the fees. States may place a cap on the tonnage of emissions that a fee is assessed on. States may adjust the fee rate annually based on the change in the consumer price index.

Wisconsin's air emissions tonnage fee system began with assessment of fees in 1992-93 for calendar year 1992 emissions. There is an annual cap of 5,000 tons per pollutant per facility, effective with 1999 emissions. For emissions between 1992 and 1998, the annual cap was 4,000 tons per pollutant per facility. Pollutants assessed the fees include the criteria pollutants (carbon monoxide is exempted), hazardous air pollutants, and other regulated pollutants under the Clean Air Act, such as ozone-depleting pollutants.

Table 3 shows the fee rate per ton of billable pollutants for the calendar years 1992 (assessed in 1992-93) through 2005 (assessed in 2005-06). The fees for 1994 through 1999 were adjusted according to changes in the consumer price index. 1999 Act 9 deleted the annual consumer price index adjustment for years after 2000 and included a one-time adjustment of $0.86 per ton. This fixed the fee rate at $35.71 per ton for 2000 and subsequent years. Table 3 also shows the number of billable tons of emissions for each year and the total emission fees assessed. Beginning in 2005, revenues from tons assessed for federally-regulated sources and for sources regulated under state, but not federal, regulations were placed in separate appropriations. The 2005-06 assessment of $9.5 million for calendar year 2005 emissions of 265,938 tons included $9.22 million for 258,011 tons from federally-regulated sources and $0.28 million for 7,927 tons from sources regulated under state, but not federal, regulations.

Certain permit holders pay fixed one-time or annual fees in lieu of emission tonnage fees. These fees are described in subsequent sections on operation permits, registration permits and general permits.

Table 3: Stationary Source Emission Fee Rate and Billable Tons

Year of Emissions	Fee Rate Per Ton	Billable Tons	Emission Fees Assessed ($ millions)
1992	$18.00	278,607	$5.01
1993	29.30	279,638	8.19
1994	30.07	279,394	8.40
1995	30.92	285,291	8.82
1996	31.77	273.506	8.69
1997	32.65	291,184	9.51
1998	33.19	280,959	9.33
1999 *	33.80	289,154	9.77
2000 **	35.71	285,628	10.20
2001	35.71	276,354	9.87
2002	35.71	272,727	9.74
2003	35.71	272,766	9.74
2004	35.71	268,207	9.58
2005	35.71	265,938	9.50
Average 1992-2005		278,525	9.02

*Beginning in 1999, the emission fee cap increased from 4,000 to 5,000 tons per pollutant.
**1999 Act 9 eliminated the annual inflationary adjustment factor after 2000.

Table 4: Assessments for 2005-06 Stationary Source Emissions

Pollutant	Actual Tonnage (2005 Tons Of Emissions)	Assessed Tonnage (2005 Billable Tons of Emissions)	Fiscal Year 2005-06 Assessed Revenues $35.71/ton
Sulfur Dioxide	244,396	110,744	$3,954,671
Nitrogen Oxides	112,975	91,106	3,252,895
Particulate Matter	28,794	27,380	977,740
Volatile Organic Compounds (VOC)	33,415	31,790	1,135,221
Other Pollutants (HAP, CFC and TRS)	33,415	4,932	176,122
Carbon Monoxide	59,757	0	0
Total	495,122	265,938	$9,496,649*

* In addition, 49 facilities were charged $300 for a permit exemption provided in 2005 Act 25. The $14,700 paid by these facilities, plus the revenues shown here, equal total 2005-06 assessments of $9,511,349.

In 2006-07, expenditure authority is provided for 100.25 positions from air emissions tonnage fees. This includes 98.25 PR DNR positions shown in Table 1, and two positions in the Department of Commerce, described in a later section on the small business clean air assistance program. The DNR positions (shown in Table 1) include 88.25 positions funded from air emissions tonnage fees for federally-regulated sources and 10.0 positions funded from air emissions tonnage fees for sources subject to state, but not federal, permitting requirements. Of the 98.25 DNR positions, 87.5 are located in the Bureau of Air Management, and the remaining 10.75 work in the Bureau of Cooperative Environmental Assistance, Air and Waste Division Management, Division of Enforcement and Science, and Division of Customer and Employee Services.

Table 4 lists the emissions tonnage fee assessed in 2005-06 for calendar year 2005 emissions, by type of pollutant. A total of 89 different pollutants can be billed. Of the 89 pollutants, Wisconsin facilities emitted and were assessed on 29 different pollutants. A total of 1,282 facilities had billable emissions of at least five tons and paid fees for the billable pollutants that they emitted. In Wisconsin, the largest volume of emissions is generated by larger utilities, paper-related industries and large chemical plants. A portion of the total emissions were assessed the emissions tonnage fee.

Table 5 lists the total amount of emissions from Wisconsin stationary sources from 1996 through 2005, as reported under requirements of the state permit program. For 2005 emissions, 265,938 of the reported 495,122 tons, or 54%, of emissions were subject to the emissions tonnage fee. The main reasons for the difference between reported and billed emissions were that several electric utilities and paper mills had emissions of sulfur dioxide and nitrogen oxides that exceeded the 5,000 ton cap per pollutant, and that carbon monoxide is not subject to the fee.

Federal Revenue

EPA provides the state with grants for general program operations associated with implementing Clean Air Act provisions, based on an agreed work plan between EPA and DNR. EPA also provides funds for specific purposes such as to purchase air monitors to determine ambient levels of particulate matter PM2.5 in the air, to study air pollutants deposited in the Great Lakes and to monitor air toxics. DNR is authorized 44.5 permanent federal

Table 5: Reported Air Emissions from Stationary Sources, 1996 Through 2005 (Tons Per Year)*

Calendar Year	Sulfur Dioxide	Nitrogen Oxides	Particulate Matter	Volatile Organic Compounds	Carbon Monoxide	Hazardous Air Pollutants	CFCs	TRS	Total
1996	257,615	163,569	32,795	45,968	48,952	22,445	93	677	572,114
1997	295,460	162,988	35,067	44,981	50,504	23,671	54	781	613,506
1998	289,352	166,821	28,865	43,317	50,865	20,963	73	701	600,957
1999	268,113	157,879	28,458	42,652	52,758	20,509	69	908	571,346
2000	256,718	186,389	29,786	41,501	69,712	17,451	75	677	602,309
2001	247,148	153,914	24,993	34,631	41,540	15,591	119	731	518,667
2002	250,458	142,038	25,499	33,736	45,822	19,400	114	935	518,002
2003	255,968	124,909	26,804	33,339	47,592	22,598	111	706	512,027
2004	252,112	119,090	26,990	32,697	51,206	28,883	87	636	511,701
2005	244,396	112,975	28,794	33,415	59,757	15,028	96	661	495,122

*Tonnage figures are based on reported emissions of regulated stationary sources.
CFCs = Chloroflorocarbons (CFC-12, HCFC-141B, and HCFC-22)
TRS = Total reduced sulfur, sulfur trioxide and hydrogen sulfide

positions in 2006-07, of which 43.0 are in the Bureau of Air Management and the remaining 1.5 are in the Division of Enforcement and Science. In addition, DNR is receiving federal air grants that fund 3.0 project positions in the Bureau of Air Management that are scheduled to expire on June 30, 2007.

Petroleum Inspection Fund

The segregated petroleum inspection fund receives revenues from the 2¢ per gallon petroleum inspection fee assessed on all petroleum products entering the state. (The fee was 3¢ per gallon prior to April 1, 2006.) The fund is primarily used for the petroleum environmental cleanup fund award (PECFA) program. Appropriations from the fund are used for air management activities related to mobile source pollution control, vapor recovery from fuel storage and distribution systems, pollution prevention and cooperative environmental assistance. DNR is authorized 6.5 petroleum inspection fund positions in 2006-07.

Permit Review Fees

DNR collects program revenue (PR) fees from source owners and operators who are required to obtain a permit for construction or modification of a facility. DNR uses the revenues for staff activities related to reviewing and issuing the permits. In 2006-07, DNR is authorized 19.5 positions for construction permit review activities. 2005 Act 25 also appropriated $756,100 in 2005-06 and $915,900 in 2006-07 from construction permit revenues for several air permit database system improvement activities, of which $484,900 in 2005-06 and 4780,300 in 2006-07 was provided on a one-time basis. (This is included in the amounts shown in Table 1.)

Asbestos Abatement Fees

DNR collects asbestos inspection and permit exemption review fees from persons who perform asbestos abatement as part of nonresidential demolition and certain renovation activities. Persons must notify DNR before they perform asbestos abatement and must pay fees that have a statutory maximum of $400 for a combined asbestos inspection fee and construction permit exemption review fee if the combined square and linear footage of friable (readily crumbled or brittle) asbestos-containing material involved in the project is less than 5,000, or $750 if the combined square and linear footage is equal to or greater than 5,000.

In addition, pursuant to 2003 Act 33, DNR promulgated administrative rule changes, effective July 1, 2005, that authorize the Department to charge for the costs it incurs for laboratory testing for a nonresidential asbestos demolition and renovation project. The Department uses the revenues to administer asbestos abatement regulations in conformance with EPA requirements, to hire contractors to conduct inspections of asbestos abatement activities and to provide training. DNR is authorized 2.0 program revenue positions for asbestos abatement activities.

Ozone-Depleting Substances Fees

DNR collects annual registration fees from persons who remove ozone-depleting refrigerants (chloroflorocarbons or CFCs) from motor vehicles and appliances such as refrigerators and air conditioners during salvage operations. Annual fees are also collected from persons who transport appliances for salvage. These revenues are used to administer CFC regulations to ensure that CFC removal activities do not release CFCs into the air. DNR is authorized 2.0 program revenue positions for regulation of ozone depleting substances.

Other Program Revenues

DNR also receives program revenues from other state agencies. This primarily includes grants from the Wisconsin Department of Transportation (DOT) from funds provided under the federal Congestion Mitigation and Air Quality (CMAQ) program of the U.S. Department of Transportation. The CMAQ program funds projects in nonattainment areas that will reduce transportation-related emissions.

Air Permits

While federal requirements are generally only applicable to major sources, state law authorizes Wisconsin to also regulate minor stationary sources. However, the state regulations for minor sources are less stringent than the requirements for major sources. For example, minor sources are generally not required to install or retrofit equipment to control emissions, as is required of major sources. DNR administers a construction (or new source review) permit program and an operation permit program. Both permit types outline all of the air pollution requirements that apply to a source, including emission limits and operating conditions to ensure that the source is in compliance with federal and state air pollution requirements. DNR permit review staff are located in each of the five DNR geographic regions. They are assigned to permit sources within specific counties in the regions.

During 2003 through 2006, DNR undertook a permit streamlining initiative. The Department's goals were to make the air permitting process more efficient and more responsive to the economic development needs of the state, while maintaining protection of public health and the environment.

In 2003 Wisconsin Act 118, a number of changes were made to the DNR construction permit and operation permit programs, including to the requirements for permits, public comment period, and the timelines for processing permit applications. Act 118 also created exemptions from permits, registration permits and general permits. In 2005 Wisconsin Act 25, changes were made in fee and permit provisions. DNR promulgated rules to implement the provisions of 2003 Act 118 and 2005 Act 25 during 2004 through 2006.

Construction Permits (New Source Review)

All new, modified, reconstructed, relocated or replaced air pollutant sources which are not exempt from construction permit requirements under administrative code Chapter NR 406 are required to obtain a construction permit before beginning construction. A construction permit allows a company to build, initially operate and

test the air pollution source. The permit expires after 18 months and can have one 18-month extension under certain instances. The source is required to have a complete operation permit on file with DNR by the time the construction permit expires in order to continue operating the source.

Construction permit activities are funded from program revenue fees authorized in administrative rule NR 410. The fees for an individual source vary depending on situations such as the type of request, type of pollutant, whether emission testing is required, and whether the applicant requests expedited review.

In 2006-07, DNR is authorized $2,832,300 with 19.5 positions to administer the construction permit program. In 2005-06, DNR collected $1,746,800 in construction permit fee revenues. The average fee was approximately $7,300 per permit.

DNR conducted an average of 192 construction permit reviews per year for new or expanded facilities in 2003-04 through 2005-06, including 177 in 2003-04, 188 in 2004-05 and 212 in 2005-06. Approximately four-fifths of the reviews are for facilities in attainment areas and one-fifth of the reviews are for facilities in nonattainment areas. DNR issued 2,619 construction permits between 1993 and November 30, 2006.

In fiscal year 2005-06, DNR issued construction permits in an average of 67 days after the receipt of a complete application. It took an average of 129 days from the time of the initial receipt of the application to issuance of the permit. However, the time varies widely, depending on the size of the source, whether the applicant requests expedited review and whether a public hearing is held regarding the application.

DNR is generally required to process a construction permit within 180 days of receiving a completed application if there is no hearing, or 240 days if there is a public hearing. The time allowed for a construction permit for a minor source is typically 120 days after the application is complete if there is no hearing, or 180 days if there is a public hearing. The specific requirements follow.

After DNR receives a construction permit application, the Department has 20 days to provide the applicant with written notice of any additional information required to determine if the proposed construction, reconstruction, replacement or modification will meet state requirements. After the applicant provides the information, DNR has 15 days to notify the applicant whether the information satisfies the Department's request. The application is considered complete when the applicant satisfies the Department's request. A DNR air management permit reviewer then prepares an analysis of the complete application, evaluates the application to quantify the proposed emissions, identifies applicable emission limitations, analyzes the effect of the project on ambient air quality and prepares a preliminary determination on the approvability of the application. The DNR analysis and preliminary determination must be completed within 90 days after the application is considered complete for major sources, or within 30 days for minor sources.

A public notice and 30-day public comment period follows issuance of the preliminary determination. DNR may hold a public hearing if a hearing is requested within 30 days after DNR gives public notice if requested by a person who may be affected by the issuance of the permit, any affected state or EPA. DNR must hold the public hearing within 60 days after the deadline for requesting a hearing if the Department determines that there is a significant public interest in holding a hearing. DNR must issue or deny the construction permit within 60 days after the close of the comment period or public hearing, whichever is later.

2003 Act 118 directed DNR to promulgate rules to exempt minor sources from the requirement to obtain a construction permit if the emissions from the sources do not present a significant hazard to public health, safety or welfare or to the environment. DNR submitted draft administrative rules to the Legislature in August, 2006. The proposed rules would provide: (a) an exemption from operation

and construction permit requirements for certain facilities which have actual emissions of pollutants of less than 10 tons per year, and which are not subject to additional control requirements such as federal hazardous air pollutant standards; and (b) an exemption from construction permit requirements for projects where the facility has emissions of 10 tons or more per year, if the project that would be constructed at the facility would have emissions of less than 10 tons per year. An $800 fee would be charged for submittal of a claim for this construction permit exemption.

In October, 2006, the Assembly Committee on Natural Resources and the Senate Committee on Natural Resources and Transportation requested DNR to make unspecified modifications to the proposed construction permit exemption rules. As of January 1, 2007, the Department was considering how to respond to the requests of the Committees.

2003 Act 118 also directed DNR to promulgate rules to allow a person to begin construction, reconstruction, replacement, or modification of a stationary source prior to issuance of a construction permit if the person shows that beginning the activity prior to the issuance of the permit is necessary to avoid undue hardship. Under 2005 Act 25, a statutory $300 fee was established for the waiver request. The Natural Resources Board approved administrative rules in October, 2006. However, as of January 1, 2007, DNR had not forwarded the rules to the Legislature for review. Construction permit waivers in the proposed rule would allow a facility to begin on-site preparation such as site clearing, grading, dredging or landfilling prior to receiving a construction permit when necessary to avoid undue hardship. Under the proposed rule, undue hardship could result from: (a) adverse weather conditions; (b) catastrophic damage of existing equipment; (c) a substantial economic or financial hardship that may preclude the project in its entirety; or (d) other unique conditions. The Department would be required to act on the waiver request within 15 days of receipt of the request. There would be a $300 non-refundable fee for filing the request.

Under 2005 Act 25, owners or operators are exempt from paying a construction permit fee, but not from the requirement to obtain a construction permit, if the entire facility meets one of the following criteria: (a) is required to obtain an operation permit under state, but not federal, law, and is covered by a registration permit; (b) is required to obtain an operation permit under state, but not federal, law, and is covered by a general permit; or (c) is required to obtain an operation permit under state, but not federal, law, has obtained an operation permit, and has paid a one-time fee of $7,500 at any time before applying for the construction permit.

Operation Permits

Permits. DNR has administered an operation permit program since 1985. In 1992, DNR submitted new operation permit rules to EPA to meet the Clean Air Act. EPA granted interim approval for Wisconsin administration of the program on March 6, 1995, and full approval effective November 30, 2001. The federal program is generally known as the Title V program, after the subchapter of federal EPA regulations. DNR also administers an operation permit program for facilities that are required under state, but not federal, law to obtain a permit.

The same sources subject to construction permit requirements are required to file an operation permit application at the same time they file a construction permit application, unless they are exempt from operation permit requirements under administrative rule NR 407. For example, in January, 1998, DNR rules exempted certain grain handling facilities from obtaining operation permits. DNR issues federal operation permits (FOP) for major sources and federally-enforceable state operating permits (FESOP) for synthetic minor sources (an option for a major source that wants to reduce emissions enough to become a minor source).

After DNR receives an operation permit application, the Department has 20 days to provide the

applicant with written notice of any additional information required to determine if the source, upon issuance of the permit will meet state requirements. After the applicant provides the information, DNR has 15 days to notify the applicant whether the information satisfies the Department's request. The application is considered complete when one of the following happens: (a) DNR notifies the applicant that the additional information provided by the applicant satisfies the Department's request; (b) if DNR does not indicate, within the required 20 days, that additional information is needed, 20 days after receipt of the application; or (c) if DNR indicates, within the required 20 days, that additional information is needed, but does not indicate within the required 15 days whether the additional information is deficient, 15 days after receipt of the additional information. A DNR air management permit reviewer then prepares an analysis of the complete application, and prepares a preliminary determination on the approvability of the application. (There is no statutory timeline for this review.)

A public notice and 30-day public comment period follows issuance of the preliminary determination. DNR may hold a public hearing if a hearing is requested within 30 days after DNR gives public notice, if requested by a person who may be affected by the issuance of the permit, any affected state or EPA. DNR must hold the public hearing within 60 days after the deadline for requesting a hearing if the Department determines that there is a significant public interest in holding a hearing. After the public hearing and comment period, DNR must issue or deny the operation permit, and submit it to EPA for approval if required by the Clean Air Act. If EPA objects to the issuance of the operation permit, DNR must revise the proposed permit as necessary to satisfy the objection.

The federal deadline for DNR issuance of federal operation permits for existing facilities was April, 1998, three years after EPA approval of the program. Few states met the EPA deadline for issuance of federal permits. DNR indicates that permit review and analysis has taken approximately twice as long as estimated early in the program. Prior to 2005, DNR required an average of approximately 250 to 300 hours per permit instead of 120 estimated initially, and many complex permits have required additional review time. As long as a source submitted an application within the required application deadline in 1994 or 1995, the source was allowed to continue to operate until DNR issued the permit. In 2005 and 2006, DNR reduced the average time required to issue an initial or renewal permit to between 180 and 190 hours.

DNR finished issuing all initial FOPs in December, 2004. DNR has issued 574 FOPs as of December, 2006, and one new FOP application was in the public comment phase. DNR issued 750 FESOPs as of December, 2006. Another 22 FESOPs were pending and not issued yet because the owner expressed interest in obtaining a registration operation permit. The operation permit is issued for operations at the entire facility and is valid for five years.

As of December, 2006, DNR issued 333 renewal FOPs and FESOPs out of 602 applications received. In the fall of 2006, DNR was developing a strategy for renewing the operation permits that expired while DNR focused on issuing initial operation permits to facilities that had not received them yet. DNR anticipates it will implement the strategy in early 2007.

In addition to the FOPs and FESOPs, DNR issues state operation permits (SOP) for minor sources not subject to federal permit requirements. Examples of minor sources are some rock crushers, drycleaners and smaller boilers. As of December, 2006, 72 SOPs were issued and 757 (91%) were being reviewed, of which 24 had reached the public notice and comment phase of review.

Under 2003 Act 118, DNR is required to notify an applicant for an operation permit, before issuing the permit, of any proposed emissions monitoring requirement for the permit. The applicant may choose to demonstrate that the proposed monitoring requirement is unreasonable. If the Secretary of

DNR determines that the monitoring requirement is unreasonable, the Department may not impose the monitoring requirement. In the spring of 2004, DNR adopted a monitoring appeal process to implement this provision. DNR received five monitoring appeals under the process and adjusted some of the monitoring requirements. In August, 2006, the Department began using a less formal conflict resolution process on technical issues related to permit applications. As of December, 2006, no one had used the process.

2003 Act 118 also directed DNR to promulgate rules to exempt minor sources from the requirement to obtain an operation permit if the emissions from the sources do not present a significant hazard to public health, safety or welfare or to the environment. DNR submitted proposed rules to the Legislature in August, 2006, that would exempt from operation permit requirements the same sources that would be exempt from construction permit requirements. As of January 1, 2007, these rules were still pending, while DNR considered legislative objections.

Operation Permit Fees. 87.5 operation permit related staff are funded from emissions tonnage fee revenues. During 2006-07, DNR is allocating 22.0 staff to activities related to federally-required operation permit review and approval, modeling, supervision, and administrative processing of permits. The Bureau of Air Management is authorized an additional 55.5 positions from stationary source emission fees for federally-regulated sources. In addition to operation permit review, other Title V program implementation activities performed by the Bureau involve compliance, emissions inventory, permit streamlining, and administrative support. The Bureau is also authorized 10.0 staff for activities related to operation permit issuance for sources that are required under state, but not federal, law to obtain a permit.

Prior to calendar year 2005, stationary sources that were required to obtain an air operation permit were required to pay an air emissions tonnage fee of $35.71 per ton for billable emissions of at least five tons. Under 2005 Act 25, changes were made in the operation permit fee structure. The Air and Waste Division stationary source emission fee appropriation was split into two, effective for fees assessed as of January 1, 2006: (a) one for revenues from stationary sources that are required to obtain an operation permit under the federal Clean Air Act; and (b) a new state permit sources appropriation for sources that are required to obtain an operation permit under state law, but not under federal law.

The statutes require that the fees deposited in each of the two appropriations be used for the following: (a) the costs of reviewing and acting on applications for operation permits; (b) implementing and enforcing operation permits except for court costs or other costs associated with an enforcement action; (c) monitoring emissions and ambient air quality; (d) preparing rules and materials to assist persons who are subject to the operation permit program; (e) ambient air quality modeling; (f) preparing and maintaining emission inventories; (g) any other direct and indirect costs of the operation permit program; and (h) costs of any other activities related to stationary sources of air contaminants.

Under the 2005 Act 25 changes, sources that are required to obtain an operation permit under federal law continue to pay an annual air emissions tonnage fee of $35.71 per ton, and the fees are deposited in the federal sources appropriation. Fee changes were made for sources that are required to obtain an operation permit under state law but not under federal law. Fees for general permits and registration permits are described in subsequent sections.

An owner or operator of a stationary source for which an operation permit is required under state law but not federal law, may elect to pay a one-time fee of $7,500 for a year if the facility is not covered by a registration permit or general permit. The emissions tonnage fee of $35.71 per ton would

Table 6: Operation Permit Fees for 2005-06, by Permit Type

Permit Type *	Number of Permit Type	2005-06 Assessed Revenues
Federal Operation Permit	434	$8,816,438
Federally Enforceable State Operation Permit	433	397,145
General Operation Permit	127	101,992
State Operation Permit	239	181,074
Exemption from Operation Permit	49	14,700
Total	1,282	$9,511,349

*All permit types pay an operation permit fee of $35.71 per ton of certain emissions, except (a) general operation permit holders pay $2,300 in the first year, and $35.71 per ton thereafter; and (b) there is a $300 annual fee for the exemption from an operation permit. Registration permit holders (there were none for 2005-06) pay $1,100 for the first year, and $35.71 per ton thereafter.

be required in all other years. If the owner or operator pays the $7,500 fee in any year before applying for a construction permit, the source is exempt from paying a construction permit fee. (In 2005-06, the average construction permit fee was approximately $7,300.)

Under 2005 Act 25, the owner or operator of a stationary source that is exempt from the requirement to obtain an operation permit pays a fee of $300 per year if the stationary source had actual emissions of a regulated pollutant in excess of three tons in the preceding year. Prior to enactment of Act 25, these sources were not required to pay an annual emission tonnage or flat fee if they were exempt from the need to obtain an operation permit.

Table 6 shows the operation permit fees assessed in 2005-06 for calendar year 2005 permits, by type of permit source. Fees for the federal operation permit are deposited in the federal sources appropriation. Fees for the other types of permits are deposited in the state sources appropriation. However, EPA approved depositing federally-enforceable state operation permit fees in the federal sources appropriation in 2005-06, because DNR was finishing issuance of FESOPs under federal requirements in that year. FESOP revenue is being deposited in the state sources appropriation beginning in 2006-07.

General Permits

Under 2003 Act 118, DNR was required to promulgate administrative rules for the issuance of general operation permits and general construction permits for similar categories of stationary sources. Act 118 specified that the rules: (a) must include criteria for identifying eligible categories of sources and permit requirements; and (b) may exempt persons who qualify for a general operation permit from a construction permit. DNR promulgated administrative rule changes in Chapter NR 406 (general construction permit) and NR 407 (general operation permit), effective September 1, 2005, which established procedures and eligibility criteria.

As of December, 2006, DNR had issued a general permit to cover almost all nonmetallic mineral processing facilities. DNR was in the processing of reviewing 15 general permits for various types of printing presses, including lithographic printing presses, screen printing presses, sheet-fed printing presses, and digital printing presses. DNR is also developing a general permit for asphalt paving facilities.

Within 15 days after DNR receives an application for coverage under a general permit, the Department is required to provide one of the following to the applicant: (a) written notice that the source qualifies for coverage under the general permit; (b) a written description of any information that is missing from the application for the permit; or (c) a written notice that the source does not qualify for the general permit.

A source is subject to a general operation permit fee of $2,300 for the first year that the entire facility is covered under a general permit. In sub-

sequent years, the facility is subject to the $35.71 per ton emissions fees. The fees are deposited in the state stationary sources appropriation. A source with a general permit does not pay construction permit fees, but would be subject to general construction permit requirements.

Registration Permits

Under 2003 Act 118, DNR was required to promulgate administrative rules for the issuance of registration operation permits and registration construction permits that authorize construction or operation, or both, of stationary sources with low actual or potential emissions. Act 118 specified that the rules: (a) specify a simplified application process, criteria for identifying categories of sources whose owners may choose to obtain registration permits, and general requirements; and (b) may exempt persons who qualify for a registration permit from the requirement to obtain a construction permit.

DNR promulgated administrative rule changes in Chapter NR 406 (registration construction permit) and NR 407 (registration operation permit), effective September 1, 2005, which established procedures and eligibility criteria. An owner or operator may apply for a registration permit if the source has actual emissions of less than 25 tons per year.

Within 15 days after DNR receives an application for coverage under a registration permit, the Department is required to provide one of the following to the applicant: (a) written notice that the source qualifies for coverage under the registration permit; (b) a written description of any information that is missing from the application for the permit; or (c) a written notice that the source does not qualify for the registration permit.

A source is subject to a registration operation permit fee of $1,100 for the first year that the entire facility is covered under the registration permit. In subsequent years, the facility is subject to the $35.71 per ton emissions fees. The fees are deposited in the state stationary sources appropriation. A source with a registration permit does not pay construction permit fees, but is subject to registration construction permit requirements.

Monitoring

DNR operates a statewide air monitoring program to: (a) determine the ambient air quality levels statewide; (b) identify areas where air quality standards are not being achieved; (c) measure the environmental impact of air pollutants; and (d) evaluate the effectiveness of efforts and control strategies to improve air quality. Data from the monitoring networks is collected and analyzed to ensure quality and used for air quality reporting and planning purposes.

DNR operates several networks of air quality monitors at numerous permanent sampling sites throughout the state. During 2006, DNR operated 40 monitoring sites throughout the state. At most of the sites, DNR collected data on several different pollutants. In addition, DNR processed data collected by others at four other sites. In 2006, DNR collected data on: (a) ozone at 30 monitoring sites; (b) PM2.5 (fine particulate matter) at 19 sites, 12 of which collected continuous data on PM2.5 concentrations; (c) PM10 at three sites; (d) nitrogen oxide at three sites); (e) sulfur dioxide at four sites; (f) carbon monoxide at two sites; and (g) toxic air pollutants at four sites. DNR discontinued monitoring it used to perform at nine sites for total suspended particulate matter, as part of budget reduction measures, but total suspended particulate matter continues to be measured at industry-operated sites as required by permit conditions. In addition, since 2004, DNR has collected air quality samples for the U.S. Department of Homeland Security biowatch program. The details of that activity are classified.

Monitors at 19 PM2.5 monitoring stations

collect a discreet sample for a 24-hour period from midnight to midnight, every third day or every sixth day, according to a nationwide sampling schedule. The filter is collected after the 24-hour period and analyzed to determine the average PM2.5 reading. No sampling is performed during the two or five day interim period until a new filter collects another 24-hour PM2.5 reading on the third or sixth day. In addition, continuous PM2.5 monitors are located at 12 of the 19 monitoring locations and provide continuous measurement of the PM2.5 concentrations at those stations 24 hours a day, seven days a week. Measurements from the continuous PM2.5 monitors are updated and reported hourly on the DNR Air Management program web site.

The majority of DNR air monitoring efforts in 2006 related to implementing: (a) the PM2.5 monitoring network and monitoring to answer questions about visibility and regional haze issues; and (b) continuous monitoring of fine particulates to aid in calculating the air quality index DNR uses to inform the public about ambient air quality on a daily basis. During 2006, DNR placed a high priority on expanding the network of continuous PM2.5 monitors from nine to 12. DNR continued to make improvements in posting the data on the DNR web site on an hourly basis, so that people who are most likely to be affected by air pollution, such as families with asthmatic children, could take actions to minimize the impacts of air pollution on their health.

Ozone monitoring is providing the data used to determine attainment status for the ozone standards and provides specialized information on days where ozone levels exceed standards. DNR performs an annual review of monitoring locations every January, solicits public comment and submits a monitoring plan to EPA.

In addition to the air quality monitors, DNR performs other monitoring activities. The Department operates a network of 26 meteorological stations, which are used to evaluate the impact of weather on the ambient concentrations of pollutants being monitored. Until 2003, DNR had conducted a biomonitoring program to evaluate the potential adverse effects of air pollution on bioindicators. For example, the program examined the impacts of ozone, sulfur dioxide and nitrogen oxide on crops, trees and other plants.

Compliance and Enforcement

EPA has delegated compliance and enforcement responsibilities related to Clean Air Act provisions in Wisconsin to DNR. DNR performs activities such as to: (a) inspect stationary sources to ensure compliance with emission limits, permit restrictions and operating requirements; (b) review stack emissions test results or witness stack tests to determine if a source is in or out of compliance; (c) investigate complaints received from citizens; and (d) take enforcement action when necessary to obtain compliance. The Department also submits a variety of compliance data to EPA to assist in maintaining a national database of air program compliance and enforcement information.

DNR's Air Management program performed 299 inspections at Wisconsin facilities in 2004-05, and 376 in 2005-06. Inspections found noncompliance issues during 25% of the inspections in 2004-05 and 29% of the inspections in 2005-06, ranging from minor recordkeeping violations to more serious emissions violations. DNR issued 185 notices of violation in 2004-05, and 209 in 2005-06. DNR also issued 102 letters of noncompliance in 2004-05, and 80 in 2005-06.

While DNR does not track the number of various types of violations, examples of violations are failure to submit a report, failure to construct or operate according to the permit, failure to obtain a permit before construction or operation, failure to monitor, or failure to submit compliance certification information, failure to notify DNR before removing asbestos,

violations of emissions requirements for particulate matter or volatile organic compounds, and open burning.

State Implementation Plan Development

During the 1990s, Wisconsin submitted a series of revisions or modifications to the state implementation plan (SIP) to EPA in accordance with a series of federal requirements. DNR continually develops plans and promulgates rules to implement the SIP.

Under Wisconsin law, DNR is required to adopt revisions to the SIP that conform to the Clean Air Act. The state SIP may vary from the federal requirements if the Governor determines that: (a) the measures are part of an interstate ozone control strategy; or (2) the measures are necessary in order to comply with percentage emission reductions required under the Clean Air Act.

Under 2003 Act 118, DNR may not submit a state implementation plan to EPA that includes a control measure or strategy that imposes or may result in regulatory requirements unless the Department has first promulgated the control measure or strategy as an administrative rule. Act 118 also requires DNR to submit a state implementation plan to the Legislature for review at least 60 days before the Department is required to submit the SIP to EPA. DNR is required to submit, to the standing committees of the Legislature with jurisdiction over environmental matters, a report that describes the proposed plan and contains all of the supporting documents that the Department intends to submit to EPA with the plan. If, within 30 days after DNR provides the report, the chairperson of a standing committee to which the report was provided submits written comments on the report to the Department, the Department Secretary is required to respond to the chairperson within 15 days of receipt of the comments. The provision does not require legislative approval before DNR issues its list or recommendation, or before the Governor makes a submission to EPA.

The statutes authorize DNR to use the administrative rule process in developing and implementing SIP modifications. DNR has implemented changes related to: (a) permitting requirements; (b) fee assessment; (c) technology standards applied to stationary sources; (d) standards applied to mobile sources; (e) area source controls; (f) monitoring requirements; and (g) all other modifications to the current SIP resulting from the federal Clean Air Act Amendments.

DNR uses extensive computer modeling to develop portions of the SIP, identify the mix of controls and programs most effective in reducing emissions, move the state toward attaining air quality standards and bring the state's nonattainment areas into attainment by federal deadlines. Data on numerous variables that impact air quality, including air monitoring station data, vehicle miles traveled, economic growth factors, emission levels of various ozone sources, and several other data sources are used to simulate the actual air quality environment in a nonattainment area. Once the actual environment is simulated, the computer is able to predict how a given control measure or program will reduce ozone pollutant emissions and overall ozone levels in the nonattainment area.

Rate-of-Progress Demonstration Plan

Between 1993 and 2000, DNR submitted a series of rate-of-progress state implementation plan revisions to EPA, that demonstrated the state had achieved required milestones of reducing VOC emissions from stationary, mobile and area sources from the 1990 base level of emissions. EPA approved the rate-of-progress plans.

Interstate Cooperative Efforts

Wisconsin has worked with neighboring states

since 1989 to study regional air quality issues and to respond to issues related to the transport of emissions by wind from one area to another. Regional transport of air pollutants can be partially responsible for violations of air quality standards in other areas of the country.

The Lake Michigan Air Directors Consortium (LADCO) was organized by Wisconsin, Illinois, Indiana, Michigan, and EPA in 1989 to implement a major study of regional ozone pollution and how best to control it in the Lake Michigan region. Ohio has since officially joined as a LADCO state. LADCO is comprised of a Board of Directors (the state air program directors), a technical staff and several workgroups. The member states and LADCO staff cooperate on technical assessments and studies of regional air quality problems such as ozone, fine particles, regional haze and air toxics. LADCO also provides a forum for the states to discuss regional air quality issues.

In 2005 and 2006, Wisconsin continued to work with LADCO, federally-recognized Indian tribes, the U.S. Park Service, the U.S. Forest Service, and the U.S. Fish and Wildlife Service to develop a comprehensive plan to address issues related to ozone, PM2.5 and haze. The agencies are assessing regional control programs that could address all of these air quality issues at once, instead of addressing one pollutant and one area at a time. The agencies are also developing supporting information that will be used to prepare state implementation plans in the LADCO states.

In addition to the efforts with LADCO states, Wisconsin is working with the states of Minnesota, Iowa, North Dakota, and Michigan on haze regulations, especially related to visibility impairment issues in four national park and wilderness areas (Boundary Waters Wilderness Area and Voyageurs National Park in Minnesota, and Isle Royale National Park and Seney Wilderness Area in Michigan).

Deadlines

Wisconsin is required to submit a state implementation plan to EPA for the eight-hour ozone standard by June, 2007. Wisconsin is required to submit recommendations for areas to be designated as attainment or nonattainment of the particulate matter standards by November, 2007. As of January, 2007, DNR is working to develop these submittals.

Adoption of Federal Air Quality Standards and Nonattainment Areas

Air Quality Standards

Under state statutes, as affected by 2003 Wisconsin Act 118, DNR must take certain actions before the state adopts ambient air quality standards. If EPA adopts an air quality standard, the statutes require DNR to promulgate by administrative rule a similar standard. The state standard may not be more restrictive than the federal standard.

If EPA modifies an air quality standard that was in effect in 1980, DNR is required to modify the corresponding state standards unless the Department finds that the modified standard would not provide adequate protection for public health and welfare. DNR is only allowed to make this finding if the finding is supported with written documentation that includes specific information related to: (a) a public health risk assessment; (b) an analysis of population groups subjected to the air contaminant; (c) an evaluation of options for managing the risk; and (d) a comparison of the proposed standard with standards in Illinois, Indiana, Michigan, Minnesota, and Ohio.

If EPA does not adopt an air quality standard for an air contaminant, DNR may promulgate a state ambient air quality standard if the Department finds the standard is needed to provide adequate

protection for public health or welfare, and if DNR provides specific written documentation to support its finding, including the four components described above.

Nonattainment Areas

Under 2003 Act 118, statutory modifications were made to the process by which the DNR identifies counties as part of nonattainment areas. After February 6, 2004, DNR may not identify a county as part of a nonattainment area under the Clean Air Act if the concentration of an air contaminant in the atmosphere in that county does not exceed the ambient air quality standard, unless the county is required to be designated under the Clean Air Act. For example, the Clean Air Act might require that all of a metropolitan statistical area must be designated, so a county within the metropolitan area might not have air quality standard exceedences but might have to be identified as part of a federal nonattainment area.

Under Act 118, DNR is also required, when it issues documents which define or list specific nonattainment areas or which recommend that areas be designated as nonattainment areas, to hold a public hearing. The Department is required to provide notice at least 30 days prior to the public hearing, provide opportunity for comment at the public hearing, and receive written comments for 10 days after the close of the hearing. DNR may not issue the documents which define, or list, or recommend nonattainment areas, until at least 30 days after the public hearing.

At least 60 days before the Governor is required to make a submission to EPA on a nonattainment designation, the Department is required to provide a report to the Legislature's environment committees. The report must contain a description of any area proposed to be identified as a nonattainment area and supporting documentation. If within 30 days after DNR submits the report to the legislative committees, the chairperson of the committee submits written comments on the report to DNR, the DNR Secretary must respond to the chairperson in writing within 15 days of receipt of the comments. The provision does not require legislative approval before DNR issues its list or recommendation, or before the Governor makes a submission to EPA. Proposed eight-hour ozone nonattainment areas should be received by the Legislature by, or before, April, 2007, and by September, 2007, for fine particular matter.

EPA Notice of Deficiency

On March 4, 2004, EPA published a Notice of Deficiency (NOD) for the Wisconsin Title V air operating permit program, in which EPA determined that the state's program did not comply with the Clean Air Act. Wisconsin was required to fully address the deficiencies identified by EPA by September 4, 2005 (18 months after the NOD was published) or face sanctions. EPA could impose the following sanctions: (a) withdraw federal approval for Wisconsin to administer the operating permit program and assume federal responsibility for administering the program; (b) reduce federal highway aids to the state; and (c) place more stringent requirements on industrial sources in the southeastern Wisconsin ozone nonattainment area.

EPA's NOD identified several deficiencies in the Wisconsin program, including related to:

1. Wisconsin failed to demonstrate that its Title V operating permit program requires owners or operators of federally-regulated sources to pay fees that are sufficient to cover the costs of the state's Title V program.

2. Wisconsin was not adequately ensuring that its Title V program funds are used solely for Title V permit program costs.

3. Wisconsin had not issued operating

permits to all of the required regulated sources within the time required by the Clean Air Act.

4. Wisconsin failed to properly implement its Title V program in several respects, including issuance of Title V permits that contain terms that do not have certain underlying applicable requirements, that do not contain all applicable requirements, and that do not make certain requirements federally enforceable.

On June 4, 2004, DNR sent EPA a preliminary written response to the NOD, and presented information about actions DNR had taken and planned to take to address the NOD. On August 18, 2005, DNR submitted Wisconsin's official response that included the following main points:

1. DNR finished processing all federal operation permits by December 30, 2004, eliminating the backlog that EPA had identified in the NOD.

2. DNR planned to complete processing the backlog of federally enforceable state operation permits by December 31, 2005.

3. DNR finalized administrative rules for use of general permits and registration permits (which went into effect September 1, 2005).

4. The 2005-07 biennial budget included funds for information technology improvements to further streamline the air permitting system.

5. The 2005-07 biennial budget separated the air operation permit fee appropriation into a separate Title V federally-regulated sources appropriation and a non-Title V state sources appropriation.

6. DNR analyses showed that Wisconsin has adequate staffing and funding levels to operate a Title V program through 2007-08.

On February 16, 2006, EPA formally determined that Wisconsin had resolved each of the deficiencies identified in the NOD for Wisconsin's operation permit program. EPA further determined that the removal of the NOD status meant that EPA would not invoke sanctions against the program and would not administer any portion of the state's operation permit program.

State Actions Related to Air Toxics

Hazardous Air Pollutant Rule

Prior to 1990, Wisconsin adopted several provisions related to the control of the emission of toxic air contaminants. As a result, until 2004, 437 toxic chemicals were regulated under state law. The state list partially overlapped with the federal list of 188 hazardous air pollutants (HAPs).

Effective July 1, 2004, administrative rule changes to the air toxics rule in chapter NR 445, also known as the hazardous air pollutant rule, regulate 535 substances. No state rule exists for 27 toxics on the federal list but the state enforces the federal standard for these toxics. Under NR 445, facilities must identify air toxics emitted by the facility, quantify emissions, and reduce or control emissions under specified conditions. The rule created a category of sources called incidental emitter, which includes most non-manufacturers and those manufacturers that emit less than three tons per year of volatile organic compounds and less than five tons per year of particulate matter.

Under the rule, facilities must exercise due diligence, defined as a reasonable investigation of likely sources of air emissions. Facilities that exercise due diligence and meet applicable compliance requirements for the identified emissions, are granted what is termed “safe harbor.” That is, the facilities will not be penalized if it is subsequently discovered that they emit a regulated substance over threshold levels.

Under the rule changes, most new compliance requirements will be written into the operation permit during the normal permit renewal or

issuance cycle (typically five years). The rule contains a provision for facilities to certify that they are in compliance with the new NR 445 requirements rather than revise operation permits or obtain a construction permit. The compliance date for facilities range from June 30, 2006, to June 30, 2007, depending on when the facility was built.

Voluntary Emission Reduction Registry

In 1999 Act 195, a voluntary emission reduction registry program was enacted. DNR promulgated administrative rule NR 437, effective November 1, 2002, to implement the program. On June 30, 2004, the Department began to register emissions reductions or avoided emissions of greenhouse gases or air contaminants or carbon sequestration, if the emissions reduction or avoided emission occurs before required by law. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride or any other gas that traps heat in the atmosphere. Air contaminants include particulate matter, mercury, lead and the ozone precursors nitrogen oxides and volatile organic compounds. Carbon sequestration is the establishment or enhancement of a carbon reserve, which is a system that takes in and stores more carbon from the atmosphere than it releases to the atmosphere.

NR 437 establishes protocols for quantifying baseline emissions, that is, the average annual amount or rate of a greenhouse gas or air contaminant emitted before an emission reduction or avoidance action is taken, or the amount of carbon stored before a carbon sequestration project is undertaken. As of September 1, 2006, 13 companies have registered almost 40 million tons of emission reductions, of which 99.9% are carbon dioxide tons. Over 39.4 million tons of the registered emission reductions are carbon dioxide tons registered by one major utility.

Asbestos Abatement

DNR is responsible for administering asbestos abatement regulations in conformance with EPA requirements. Persons who perform demolition or certain renovations including the removal of asbestos-containing material must follow asbestos abatement regulations to minimize the release of asbestos fibers into the air. Renovations are subject to DNR asbestos regulations if the amount of asbestos-containing materials exceeds minimum thresholds specified in administrative code. Persons must notify DNR at least 10 days before they perform asbestos abatement, and must pay asbestos inspection fees and a construction permit exemption fee.

DNR received 3,150 notifications for asbestos abatement and demolition projects in 2004-05 and 4,585 in 2005-06. DNR staff, and counties and municipalities under contract with DNR, inspected 1,009 abatement projects in 2004-05 before and after abatement activities, and inspected 924 projects in 2005-06.

DNR reviews the notices for compliance with EPA requirements. EPA had required DNR to enter information about the notices into a nationwide database. EPA discontinued the requirement beginning in 2004-05. However, DNR continues to maintain the database, in order to work with building owners and companies to meet the 10-day notification requirement, allow for DNR inspection of projects, and allow for follow up on complaints.

DNR is authorized to initiate enforcement action against persons who do not comply with asbestos abatement regulations. The Department may also issue citations for violations of a small number of asbestos abatement laws.

Ozone-Depleting Refrigerants

Wisconsin administers three programs to reduce emissions of ozone-depleting refrigerants (CFCs). The Department of Agriculture, Trade and Consumer Protection administers rules, effective in 1991, related to the: (a) installation, repair, and servicing of mobile air conditioners and refrigerated trailer systems; (b) recycling of CFCs removed from mobile air conditioners; and (c) the labeling of

ozone-depleting substances. The Department of Commerce administers rules, effective in 1992, related to the installation or servicing of stationary refrigeration equipment. DNR administers rules, effective in 1993, related to the disposal of any equipment containing ozone-depleting refrigerants.

The three state programs prohibit knowing or negligent releases of ozone-depleting refrigerants. The federal Clean Air Act provisions on stratospheric ozone are somewhat more comprehensive than Wisconsin law but the two laws are generally consistent.

Mercury Emissions

On October 1, 2004, state mercury emission rule changes in administrative code Chapter NR 446 went into effect. Major electric utilities were required to submit a report to DNR by October 1, 2005, that included information about baseline mercury emissions calculated using procedures contained in the rule. By October 1, 2007, each major utility must submit a compliance plan demonstrating how the utility will achieve a 40% reduction in baseline mercury emissions by January 1, 2010.

Beginning January 1, 2008, no owner or operator of a major utility may cause, allow or permit mercury emissions from stationary sources of 25 megawatts or greater of the major utility on an annual basis in an amount which exceeds the calculated level of annual mercury emissions for those units, as determined by DNR under procedures specified in the rule.

By October 1, 2011, each major utility must submit a compliance plan demonstrating how the utility will achieve a 75% reduction in baseline mercury emissions by January 1, 2015.

The administrative rule also includes the mercury emission reduction goal of DNR to encourage major utilities to achieve the maximum amount of mercury emission reductions reasonably achievable from all stationary sources of the major utilities in the state. The rule states that DNR's objective is to work with the major utilities to achieve an 80% reduction in mercury emissions by 2018, as measured from the baseline mercury emissions for the major utilities' stationary sources, as determined by the Department under procedures specified in the rule.

The mercury rule requires DNR to submit reports to the Natural Resources Board and to the Legislature by January 1, 2006, January 1, 2009, and January 1, 2013. In each report, DNR is required to evaluate the scientific and technology developments related to mercury emissions, evaluate whether the mercury emission requirements are achievable, make recommendations for rule changes or other actions based on scientific and technology developments, and assess the impact of the compliance alternatives on mercury concentrations in locally affected water bodies.

In addition, the rule requires DNR to report to the Natural Resources Board and to the Legislature within six months after the date that a federal regulation is promulgated or that a federal law is enacted that has mercury reduction requirements for mercury emission sources affected by the state rule. Finally, the rule requires that, if a federal emission standard limiting mercury emissions from a major utility is promulgated, DNR shall adopt a similar standard, including administrative requirements that are consistent with the federal administrative requirements. The revised state standard could not be more restrictive than the federal standard for emission limitations.

In March of 2006, DNR submitted a report to the Natural Resources Board and Legislature which described the differences between the federal rule promulgated in May, 2005, and the state rule. The report indicated that the federal rule includes new sources, allows interstate trading of mercury allowances as an option for meeting emission reduction requirements, and covers more coal-fired boilers than the state rule. The report stated that 48 coal-fired boilers operated by eight

electric utility companies are affected by the federal mercury emissions caps for Wisconsin, while the state mercury rule affects four major electric utility companies in the state. While the federal rule does not prohibit states from having more stringent requirements than the federal rule, the Wisconsin mercury rule requires the state to adopt revisions that reflect the federal emission standards and administrative requirements.

In December, 2006, DNR was in the process of preparing administrative rule changes to conform to the federal rule. DNR anticipated requesting the Natural Resources Board to authorize public hearings in early 2007, and promulgating the rule during 2007. DNR was also in the process of developing the plan for implementing the federal mercury emission requirements (that was due to EPA by November 17, 2006), and anticipated sending the administrative rule and plan to EPA for approval after the administrative rule is finalized. Further, a 2005 federal lawsuit filed by several states (including Wisconsin) challenging some of the federal provisions had not been resolved as of January 1, 2007.

Other Issues

Air Quality-Related Voluntary Initiatives

DNR air program staff work with other organizations in developing several voluntary initiatives intended to improve air quality. Some examples of the initiatives that DNR worked on during the 2005-07 biennium are:

1. The Wisconsin Partners for Clean Air program in southeastern Wisconsin seeks voluntary actions by business and government organizations to reduce emissions that cause ground level ozone by approximately two tons per summer day of ozone-related emissions.

2. A diesel school bus retrofit program in southeastern Wisconsin is using EPA-approved technologies to retrofit diesel school buses to reduce emissions of VOCs, NOx, particulates, air toxics and carbon monoxide. A federal CMAQ grant and Wisconsin DOT funds are assisting in retrofitting equipment in 800 school buses in eastern Wisconsin to reduce emissions.

3. DNR also received a CMAQ grant to install 50 advance truck stop electrification units at a truck stop in southeastern Wisconsin, which would allow drivers to plug in their trucks rather than idle the diesel engines to obtain heat, air conditioning and power when stationary.

4. DNR has worked with auto, scrap and waste recyclers to reduce mercury emissions by removing auto mercury switches or other mercury-containing devices prior to crushing or shredding.

5. DNR has worked with communities to reduce use of mercury-containing products.

6. The Environmental Cooperation Pilot Program, and the successor Green Tier program, encourage regulated facilities to achieve superior environmental performance by offering regulatory flexibility through negotiated agreements.

7. DNR participated in the development of an award program to recognize hot mix asphalt facilities that achieve environmental excellence, including emissions and odor control.

8. DNR has worked with the dry cleaning industry to improve environmental performance, reduce air emissions, and simplify the reporting of emissions.

9. DNR is working with several counties on an initiative called "Clean Air Faster." The initiative has mainly taken place in Dane, Jefferson, Milwaukee, Brown, and Fond du Lac Counties. The initiative is intended to voluntarily reduce emissions of the precursors of ozone, and has a goal of helping the involved counties maintain attainment of the eight-hour ozone standard.

Under the initiative, during 2005-07, DNR worked with partners to obtain over $1,000,000 in EPA and other grant funding to work with employers and employees on voluntary emission reductions, install lower-emission mufflers on diesel-powered school buses, reduce diesel emissions from off-road vehicles, and reduce emissions at convenience stores and gas stations.

Motor Vehicle Inspection and Maintenance

Wisconsin's motor vehicle inspection and maintenance program (I/M), in operation since 1984, requires that vehicles in southeastern Wisconsin be inspected to ensure that they comply with emission standards and that pollution control equipment is operational. The state Department of Transportation (DOT) administers I/M through a contract with a private firm, while DNR sets the emission standards. Currently, the program operates in the state's six severe nonattainment counties under the one-hour ozone standard (Kenosha, Milwaukee, Ozaukee, Racine, Washington and Waukesha) and in Sheboygan County. About 750,000 vehicles are tested annually.

Vehicles are required to be tested every other year, beginning in the fourth year after the vehicle's model year, and, for vehicles more than six years old, upon a change of ownership. There is no fee paid by the vehicle owner for the test, although vehicle owners are responsible for the cost of any required repairs. Vehicles that fail an emissions test must be repaired and pass a subsequent test, or receive a waiver, prior to being registered. A waiver is issued if the vehicle continues to fail after repairs are done costing in excess of limits established by DNR, or if testing staff determine that compliance cannot be achieved with repairs.

The following vehicles are exempt from testing: (a) vehicles with a model year of 1967 or earlier; (b) vehicles with a gross vehicle weight rating over 10,000 pounds; (c) vehicles exempt from registration; (d) vehicles powered with diesel fuel; and (e) motorcycles and mopeds.

Emissions tests are conducted by a private contractor. The 2005-07 biennial budget act provided $13.3 million in each year of the biennium to pay the cost of the testing contract. These funds are provided from the transportation fund, although the Legislature has established an annual transfer of $6.3 million from the petroleum inspection fund to the transportation fund, with the intention of sharing the costs of the program between both funds.

Gasoline Vapor Recovery Grants

In addition to federal requirements for gasoline station operators located in moderate or worse one-hour ozone nonattainment areas to install stage II vapor recovery systems on gasoline dispensing equipment, Wisconsin also requires the installation of gasoline vapor recovery systems at larger facilities statewide. This requirement is based on the control of toxic emissions associated with gasoline vapors.

DNR operated a grant program, funded from the segregated petroleum inspection fund, to reimburse most of the costs of the design, acquisition and installation of Stage II equipment at fuel dispensing facilities in ozone nonattainment areas in eastern and southeastern Wisconsin. The grant program was not a requirement of the Clean Air Act. DNR paid grants under the program between 1995-96 and 1998-99. Vapor recovery grants reimbursed actual expenditures based on the type of vapor recovery system installed, with a maximum grant of $37,250. The program provided approximately $19.9 million in grants to 733 fuel-dispensing facilities.

Small Business Clean Air Assistance Program

The Clean Air Act Amendments of 1990 require states to establish a program to assist small businesses in complying with the requirements of the Act. The Wisconsin program is administered by DNR and the Department of Commerce. Commerce is appropriated $220,100 in 2006-07 with two positions to administer the program. The program

is funded from emissions tonnage fees that are collected by DNR from federally-regulated sources.

The focus of the Small Business Clean Air Assistance Program is to assist small businesses in complying with the technical and environmental provisions related to the Clean Air Act. Small businesses are those which: (a) are owned or operated by a person that employs 100 or fewer individuals; (b) are owned by a small business concern as defined under federal code; (c) emit less than 50 tons per year of any regulated pollutant; and (d) emit less than 75 tons per year of all regulated pollutants in total. For ozone related pollutants, only those businesses located in the state's ozone nonattainment areas and emitting between 25 and 50 tons of ozone related pollutants would be eligible for the program. The program's provisions allow for the exemption of assistance and services to small businesses that have sufficient technical and financial capabilities to meet the requirements of the Clean Air Act. However, to the extent program resources allow, program services are offered to all businesses.

Acid Rain

Wisconsin enacted significant controls in 1985 Act 296 to reduce acid rain. This law required Wisconsin's major electric utilities to meet average annual emission limits, beginning in 1993, and set annual goals for emissions of sulfur dioxide and nitrogen oxides that have resulted in a 50% reduction in sulfate emissions from 1980. The annual goal for sulfur dioxide emissions after 1992 is 250,000 tons from major utility sources and 75,000 tons from other large sources. As shown in Table 5, total sulfur dioxide emissions reported in the state were 244,396 tons in 2005. DNR reported that, in 2003 (the most recent year of published data), major utilities reported 186,246 tons of sulfur dioxide emissions, and large sources reported 59,971 tons.

Wisconsin's effort to reduce acid rain has primarily been through the reduction of sulfur dioxide emissions from stationary sources. Coal-burning electrical utilities account for most of the sulfur dioxide pollution in Wisconsin. Pulp and paper mills are also major contributors with natural and other sources emitting smaller amounts.

Wisconsin's utilities affected under Clean Air Act Amendment Phase I requirements generally will have excess sulfur dioxide emission allowances and are in a position to make use of the emissions trading provision of the Act. Utilities in Wisconsin have sold emissions allowances under these provisions.

2004 Legislative Audit

In February, 2004, the Legislative Audit Bureau (LAB) completed an evaluation of the DNR's air management programs. The LAB evaluation included the following findings: (a) Wisconsin was among the slowest states in the nation to issue operation permits; (b) the process for issuing construction and operation permits could be streamlined; (c) DNR does not consistently follow federal and state enforcement guidelines; and (d) program management could be improved.

The Legislative Audit Bureau made several recommendations related to the following topics: (a) annual emission fees billing; (b) operation permit issuance backlog; (c) operation permit program streamlining activities; (d) operation permit review and issuance procedures; (e) the expedited review process for construction permits; (f) the facility inspection process; (g) compliance with federal policy; (h) procedures to track compliance certification submission dates; (i) procedures to identify all after-the-fact permits issued and take appropriate enforcement action; (j) additional performance measures; and (k) improvements in its data systems. LAB also recommended that DNR report to the Joint Legislative Audit Committee by September 1, 2004, with follow-up information.

DNR submitted a September 1, 2004, report to the Joint Legislative Audit Committee that included information about ongoing initiatives DNR has undertaken to address LAB recommendations. Some of the DNR responses included actions to: (a) correct emission fees billing errors; (b) assign staff located outside of the Southeast Region to review operation permits in the Southeast Region; (c) implement operation permit streamlining changes; (d) implement permit procedure improvements; (e) review and plan to implement construction and operation permit program changes made by 2003 Act 118; (f) update its inventory of facilities subject to federal inspection policies and improve inspection selection priorities; (g) identify database modifications necessary to better track compliance; and (h) modify the tracking system for construction permits for compliance follow up.

Legislative Reports

2003 Act 118

Under 2003 Act 118, DNR was directed to submit several reports to the Legislature's committees on the environment.

September, 2004, Report. DNR was required to submit a report by September 1, 2004, which summarized the Department's efforts on air permit streamlining and made recommendations related to permit streamlining. DNR's report described the Department's stationary source permit streamlining framework that uses regulatory tools based on the level of emissions, types of sources, whether some sources will need individualized permits, or whether facilities meet the federal definition of a major source. The Department described elements it may include in its streamlining efforts, including permit exemptions, registration permits, general permits, bubble permits (an individually-negotiated permit that caps the overall emission levels from a facility), individual permits, and other alternative regulatory approaches.

March, 2005, Report. DNR was required to submit a report by March 1, 2005, which: (a) summarized the state's existing and pending state implementation plans; (b) identified best practices for emissions monitoring; and (c) identified air pollution control permit application requirements. DNR's report described the Department's activities related to: (a) identification of DNR administrative rules that were included in the state implementation plan approved by EPA but did not need to be in the SIP, and efforts of DNR to work with EPA to withdraw those chapters from the SIP; (b) actions taken and planned to improve emission test methods, compliance calculations for emissions monitoring; (c) development of streamlined permit application forms; and (d) information technology improvements proposed in the Governor's 2005-07 budget.

2005 Act 25

Under 2005 Act 25, DNR was directed to submit a report by December 15, 2006, to the Joint Committee on Finance, that included all of the following: (1) a description of DNR's progress on implementing changes in the air pollution permitting program made by 2003 Act 118, and on the development of an information technology system for the permitting program; (2) the number of sources for which operation permits are required under state law but not federal law, that are covered by a registration permit, a general permit, or an operation permit that is not a registration or general permit; (3) for sources for which operation permits are required under state law but not federal law, the average number of days from receipt of a complete application until DNR issues a determination of coverage under a registration permit, a general permit, or an operation permit that is not a registration or general permit; and (4) an analysis of the costs of the air pollution permitting program and the revenues necessary to run the program after the changes made under 2003 Act 118 are fully implemented.

DNR submitted the report to the Joint Commit-

tee on Finance, which included the following responses to the four components required to be in the report.

1. DNR described changes made to implement permit exemptions, general construction permits and general operation permits, registration construction permits and registration operation permits, construction permit waivers and combined construction and operation permits. The report also described information technology improvements that have been made and are being made to automate permit application, issuance and compliance monitoring activities.

2. As of December, 2006, DNR had identified 695 facilities that were required to obtain an operation permit under state law, but not federal law. An additional 985 facilities were required to obtain a permit under federal law, but had volunteered to restrict their air emission rates to levels below federal operation permitting thresholds, and agreed to obtain a federally enforceable state operation permit. Of these 1,680 facilities, DNR estimated that after full implementation of permit streamlining, 141 facilities would have to obtain traditional operation permits, 264 facilities would be eligible for general permits, 233 facilities would be eligible for registration permits, and 1,042 would not have to obtain an operation permit under draft rules that DNR submitted to the Legislature in 2006. DNR estimated almost all nonmetallic mineral processing facilities had been covered with general permits.

3. DNR indicated that review of operation permit applications for facilities that were not required to obtain a permit under federal law had become backlogged while DNR focused on facilities that were required to obtain a permit under federal law. During the backlog elimination process, operation permits were reviewed in an average of 343 days. Under 2003 Act 118, registration and general permits have to be processed in 15 days. DNR had issued registration permits to qualifying sources in an average of four days. DNR converted the general permit for nonmetallic mineral processing facilities that was created prior to 2004, into a general permit under the requirements of Act 118.

4. DNR included a workload analysis and fee analysis that was submitted to EPA as part of the Department's response to the EPA NOD in 2005. (The analysis indicated fee levels were adequate to meet federal requirements and state programs needs through 2007-08.) DNR indicated that 2003 Act 118 changes were still in the process of being implemented, so that more current analysis of air permit program costs was not available.