

Clean Air Minnesota Executive Order Implementation Guide
1/20/05 version

I. Introduction

This document provides guidance to state departments on implementing Executive Order 04-08 providing for state departments to take actions to prevent air pollution in daily operations. Executive order 04-08 was signed by the Governor on August 6, 2004 and came into effect on August 31, 2004. The Interagency Pollution Prevention Advisory Team (IPPAT) shall assist state departments in implementing the requirements of this order. Directives of the order are summarized in Table 1 below. These directives were selected as ones most likely to result in the greatest benefit while remaining relatively easy for agencies to implement.

This document will be updated periodically. For the most recent version check the IPPAT web site at <http://www.moea.state.mn.us/lc/ippat.cfm>. Additional implementation resources are also available at this site.

Table 1. Summary of Executive Order Directives

Numbers indicate section of this document where specific elements are discussed, including resources for implementation.

Required Elements
II.1 IPPAT shall assist state departments in implementing the requirements of this order.
II.2 Implement two or more of the actions listed in section III
II.3 Designate a staff member and an alternate to receive Air Pollution Alerts and notify staff in a timely manner
II.4 Provide employees with a fact sheet about steps that employees can take at work and at home to reduce air pollution
II.5 Notify IPPAT of the steps the Department will take to meet the requirements of this order
II.6 IPPAT will provide a reporting form and technical assistance to the state departments to report their progress
Departments shall implement two or more of the following actions:
III.1 Purchase or lease the most fuel-efficient and least polluting vehicles that meet the operational needs of the department
III.2 Refuel state-operated vehicles with the cleanest fuel available
III.3 Encourage employees to consider alternatives to single-occupancy vehicle commuting
III.4 Reduce state energy use through purchasing energy-efficient office equipment
III.5 Employ energy-conserving strategies in state-owned or leased buildings
III.6 Procure and use products with the lowest potential to contribute to air pollution, such as cleaning products with low amounts of volatile organic compounds
III.7 Employ landscaping that reduces the need for gasoline-powered equipment
III.8 Purchase electricity generated from renewable sources

II. Description and Resources for Actions to Prevent Air Pollution—Required Actions

To comply with Executive Order 04-08, each department must notify its employees about actions to take at work and at home to prevent air pollution, especially during episodes of elevated air pollution (Air Pollution Alerts), as well as to implement at least two specific on-going reduction measures. In addition, departments shall coordinate activities and report on progress. These actions are described below, along with resources for implementation.

II.1 Executive Order Implementation/Assistance

The Interagency Pollution Prevention Advisory Team established in executive order 99-04, and continued in executive order 03-04, shall assist state departments in implementing the requirements of this order, including providing information, guidance, sample policies and procedures, and technical assistance to ensure effective and efficient state participation under this order.

The Interagency Pollution Prevention Advisory Team (IPPAT) will serve as the coordinator of information sharing, assistance and reporting among state agencies to facilitate compliance with the Executive Order 04-08. Large departments are required to designate a representative to this team by Executive Order 03-04 which provides for pollution prevention by state agencies. Departments should ensure that they have a representative participate in IPPAT and attend the meetings to facilitate implementation of Executive Order 04-08. IPPAT is convened and chaired by the Office of Environmental Assistance and meets quarterly (currently the fourth Thursday of January, April, July and October, usually in the morning).

The staff coordinator of IPPAT is:

Emily Moore, Minnesota Office of Environmental Assistance
Emily.moore@state.mn.us
651-215-0201

MPCA staff designated to work with IPPAT to facilitate implementation of this order:

Ned Brooks
Ned.brooks@state.mn.us
651-296-7242

II.2 On-going Measures to Prevent Air Pollution

Each state department shall seek to reduce its contribution to air pollution by implementing two or more of the following actions whenever legally, technically and economically feasible, subject to the specific needs of the department and responsible management of agency finances:

- a. *Purchase or lease the most fuel-efficient and least polluting vehicles that meet the operational needs of the state department;*
- b. *Refuel state-operated vehicles with the cleanest fuel available;*
- c. *Encourage employees to consider alternatives to single-occupancy vehicle commuting;*
- d. *Reduce state energy use through purchasing energy-efficient office equipment and appliances;*
- e. *Employ energy-conserving strategies in state-owned or leased buildings;*
- f. *Procure and use products with the lowest potential to contribute to air pollution, such as cleaning products with low amounts of volatile organic compounds;*
- g. *Employ landscaping that reduces the need for gasoline-powered maintenance equipment; and*
- h. *Purchase electricity generated from renewable sources.*

More information and resources for these actions are outlined in section III.

II.3 Notifying Staff of Air Pollution Alerts

Each state department shall designate a staff member and an alternate to receive the Minnesota Pollution Control Agency's Air Pollution Alerts and notify staff in a timely manner of the alert and of measures state employees could take to minimize their contributions to air pollution during the alert.

Each agency shall designate a staff member to sign up to receive the Minnesota Pollution Control Agency's air pollution alerts by logging on to <http://aqi.pca.state.mn.us/hourly/>. The MPCA sends e-mails to people who sign up with a description of the cause and severity of the alert, precautions that should be taken to protect health and a few actions to reduce the severity of the air pollution episode. When a daytime alert is issued, designated agency staff shall forward this email to all staff with access to computers and otherwise notify all staff in a timely manner.

In addition to forwarding this e-mail, agencies should encourage other staff to sign up for alert e-mails and provide information and guidance to staff to take the following actions at work and at home during air pollution episodes:

- Postpone using oil-based paints, solvents, varnishes, charcoal lighter fluid or any consumer product that releases solvent-based fumes.
- Postpone mowing or maintaining grounds and lawns with gasoline-fueled lawn equipment.
- Avoid testing back-up diesel generators.
- Delay refueling of state and personal automobiles, if possible.
- Avoid unnecessary single-occupancy driving, excessive vehicle idling and jackrabbit starts.
- Walk, ride a bike, take the bus, or use other non-gasoline-fueled sources of transportation for state business use and to and from work.

- Conserve energy by turning off unnecessary lighting and equipment.
- Postpone controlled-burn fires, campfires or fireplace fires.

II.4 Periodic Employee Awareness

On or about May 1 and October 1 of each year, each state department shall provide its employees via email with a fact sheet about steps that employees can take at work and at home to reduce air pollution.

IPPAT will supply a generic e-mail announcement and fact sheet for each department to share with staff in the spring and fall of each year. This communication shall include information on the causes of air pollution, state government and individual contributions, what state employees can do to reduce their contribution at work and at home and extra measures to take when an Air Pollution Alert is issued. The current version of a fact sheet about preventing air pollution can be found at: <http://www.mn-ei.org/air/resources.html#FactSheets>.

II.5 Notification of Actions Selected

Within 30 days of the effective date of this order, each state department shall notify the Interagency Pollution Prevention Advisory Team of the steps it will take to meet the requirements of this order.

Departments are required to implement at least two of the items listed in section II.2 above and detailed in section III. by September 30, 2004. The order requires departments to notify the IPPAT staff coordinator listed in section II.1 of the actions selected by September 30, 2004.

II.6 Tracking and Reporting

The Interagency Pollution Prevention Advisory Team will provide a reporting form and technical assistance to the state departments to report their progress on implementing this executive order as part of their annual pollution prevention reports.

Executive Order (03-04) on pollution prevention requires state agencies to report yearly on progress made in preventing pollution and resource consumption. This annual reporting, the Pollution Prevention Summary Report, will be used as the vehicle to report on agency progress in fulfilling Executive Order 04-08. The Pollution Prevention Progress Report is due to the OEA by August 15th of each year for the previous fiscal year's activities. IPPAT will provide a reporting format to each agencies designated contact person prior to the reporting period.

III. Description and Resources for On-going Actions to Prevent Air Pollution—Elective Actions (select at least two)

Each state department shall seek to reduce its contribution to air pollution by implementing two or more of the following actions whenever legally, technically and economically feasible, subject to the specific needs of the department and responsible management of agency finances:

III.1 Fleet Fuel Efficiency

Purchase or lease the most fuel-efficient and least polluting vehicles that meet the operational needs of the state department.

Fuel economy and air pollution from cars and trucks varies greatly – even within the same vehicle class, like mid-size passenger cars for example. When acquiring a vehicle, choosing the most efficient vehicle in the class and using the most efficient class of vehicle that meets the department’s operational needs can reduce expenses and fuel use. Over the life of an automobile, a 10% improvement in fuel economy over the current average would save more than 400 gallons of fuel. The less fuel used, the less air pollution goes into the air. More information about vehicle fuel economy and air pollution is available at <http://www.epa.gov/autoemissions/>. The Pollution Control Agency’s fleet policy is a possible model for other state fleet managers and is available at <http://www.moea.state.mn.us/lc/ippat.cfm>

Resource persons:

Fuel efficient vehicles on state contract and vehicle procurement:
Jackie Finger, Dept. of Administration Materials Management Div.
651-296-3773, jackie.finger@state.mn.us.

Leasing fuel-efficient vehicles: Tim Morse, Travel Management Division,
tim.morse@state.mn.us, 651-296-9998.

Jeff Buss, Minnesota Pollution Control Agency
651-297-8659, jeff.buss@state.mn.us.

III.2 Clean Fuels

Refuel state-operated vehicles with the cleanest fuel available.

Fuels that burn cleaner than regular gasoline and diesel are available in many parts of the state. Cleaner-burning fuels include E85, biodiesel, and cleaner gasoline and diesel. Work with your fleet manager to track fuel use for department-owned vehicles. For leased vehicles, work with Travel Management Division.

E85. Significant portions of the state’s passenger vehicle fleet are flexible fuel vehicles that can run on either regular gasoline or cleaner-burning E85, an 85% ethanol fuel.

Flexible fuel vehicles in the state's fleet must refuel with E-85 fuel whenever possible (this is a legislative requirement <http://www.revisor.leg.state.mn.us/stats/16C/135.html>). A list of flexible fuel vehicles and E85 stations can be found at:

<http://www.alamn.org/cleanair/cleanair.asp>.

Biodiesel. Made from vegetable oil, this fuel can be mixed with regular diesel fuel (typically up to 20%) and used in existing diesel engines. Biodiesel can be purchased in bulk loads.

Gasoline. "Regular" gasolines vary greatly in the amount of certain pollutants they contain. Currently in the Twin Cities, gasoline that is both low-sulfur and low-benzene is available at Holiday Stationstores under the name "BluePlanet." Premium grade gasolines are usually also lower in sulfur. Check <http://alamn.org/outdoor/fuelcheck.asp> for the latest results of regular independent testing of gasoline performed by the American Lung Association of Minnesota.

Low-Sulfur Diesel. Diesel fuel with lowered sulfur burns significantly cleaner, especially when paired with improved emissions control equipment on a vehicle. Low-sulfur diesel will soon replace existing diesel at all pumps in the state and ultra-low-sulfur diesel may soon be available on special order on the State of Minnesota material purchasing contract .

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Resource persons:

Fuels and vehicles on state contract: Jackie Finger, Dept. of Administration Materials Management Div., 651-296-3773, jackie.finger@state.mn.us.

Flexible fuel vehicles (E-85 compatible) for lease: Tim Morse, Travel Management Division, tim.morse@state.mn.us, 651-296-9998.

E85 and biodiesel: Mike Taylor, Minnesota Department of Commerce, Energy Office 651-296-6830, mike.taylor@state.mn.us, Dana Albers, Hennepin County 763-745-7503, dana.albers@co.hennepin.mn.us, Wayne Gjerde, Office of Environmental Assistance, 651-215-0270, wayne.gjerde@moea.state.mn.us

Materials for promoting E-85 use (stickers, posters, maps, key chains, etc) are available from the American Lung Association of Minnesota. Contact Kelly Marczak at 651-268-7590 or kelly.marczak@alamn.org

Cleaner gasoline and diesel: Jeff Buss, MPCA 297-8659 Jeff.buss@state.mn.us.

III.3 Employee Commuting

Encourage employees to consider alternatives to single-occupancy vehicle commuting.

Reducing the number of car trips will prevent air pollution and congestion. Departments can provide encouragement and incentives for employees to avoid driving alone to work such as:

- Enrolling in discounted payroll deduction programs, such as Metro Transit's Metro pass program that provides discounted bus passes for employee commuting and personal travel (Twin Cities only).
- Providing on-site sales of other discounted bus cards.
- Providing preferred parking to carpoolers.
- Providing bike lockers and changing facilities
- Providing carpool and vanpool matching

Resources for employee commuting in the Twin Cities are available at <http://www.metrocommuterservices.org/> or by calling 651-602-1602. For Greater Minnesota transit services see http://www.apta.com/links/state_local/mn.cfm

Resource persons:

For downtown St. Paul and Capitol Complex: Michelle Hansen or Erin Waldenberger, St. Paul Transportation Management Organization, 651-265-2779, michelle@saintpaulchamber.com

For the rest of the metro area: Suzan Forsberg, Metro Commuter Services 651-602-1213 Suzan.forsberg@metc.state.mn.us

III.4 Energy Efficient Equipment

Reduce state energy use through purchasing energy-efficient office equipment and appliances.

When purchasing new electronic office equipment and appliances, select Energy Star® rated items. Currently, most electronic items on state contract are energy star rated. For more information on energy star-rated appliances and equipment, see www.energystar.gov

Resource person:

Phil Smith, Minnesota Department of Commerce Energy Information Center. 651-296-7988 or 651-296-5175 (Energy Information Center)

III.5 Employ Efficient Buildings

Employ energy-conserving strategies in state-owned or leased buildings.

Strategies for State-Owned Buildings:

- Arrange for a commercial energy audit of the facility. Implement as many of the recommended energy saving strategies as possible to achieve an overall payback of

4 years or less. Strategies with a shorter payback (e.g., motion sensing lighting switches) should be used to offset the longer payback of other strategies.

- Install signage by light switches encouraging lights to be shut off and by elevators promoting walking
- As replacements are needed, substitute energy-efficient lamps and light bulbs.
- Re-commission HVAC systems to make sure they are operating as designed to be most efficient.

Strategies for Leased Buildings:

To reduce air emissions for a leased building, include provisions in the lease agreement, as based on this sample lease language:

Sample Building Lease Language to Reduce Air Pollution

1. Sustainable Building Guidelines/Green Building Issues

Lessor agrees to the following:

- a. Specify and use low-emitting materials, as defined by the State of Minnesota Sustainable Building Guideline I.3, for all applicable maintenance and improvements. (See http://www.csbr.umn.edu/B3/i_3.html. Click on Resources for links to specifications, or product lists if available.)
- b. Install small signage next to each elevator on each floor to read “When possible use stairs to walk up one, down two.”
- c. Operate lawnmowers and other power landscaping equipment only when air pollution alert is not in effect.
- d. Use energy efficient light fixtures as light fixtures are replaced.

2. Additional Improvements to the Leased Premises

Lessor agrees, at its expense, to provide the following building improvements:

- a. Arrange for a commercial energy audit of the facility and to implement recommendations from the audit with a payback of 4 years or less. Lessee agrees to help implement energy-conserving recommendations related to occupant behavior. Said audit to be completed no later than (specify date).
- b. Install motion sensing lighting, as identified by lessee to be completed by (specify date)

Strategies for New Buildings. . The State of Minnesota Sustainable Building Guidelines for all new state buildings include many strategies to prevent air pollution. See www.csbr.umn.edu/B3 for more information.

Resource persons:

Phil Smith, Minnesota Department of Commerce Energy Information Center. 651-296-7988 or 651-296-5175 (Energy Information Center)

Erin Barnes-Driscoll, 215-0211, Erin.Driscoll@moea.state.mn.us and Laura Millberg 215-0219, laura.millberg@moea.state.mn.us, Office of Environmental Assistance.

III.6 Products

Procure and use products with the lowest potential to contribute to air pollution, such as cleaning products with low amounts of volatile organic compounds.

Products containing volatile organic compounds (VOC) contribute to air pollution when they are used. State agencies should use products with the lowest VOC content available. Low VOC products can be purchased on state contract:

- Zero-VOC interior wall and trim paint: Lifemaster 2000 (B5W951) zero-VOC paint is available through Contract Release P-734(5).
- Cleaning supplies and floor care products: should not contain high levels of VOCs. Green Seal provides guidance about finishes and strippers in a June 2004 report at: http://www.greenseal.org/recommendations/CGR_floorcare.pdf

If state agencies contract for painting, cleaning, maintenance, building upgrades, or other relevant services, contractors should be required to use the lowest VOC products available. The OEA has extensive information and links on sustainable building products at <http://www.moea.state.mn.us/greenbuilding/products.cfm>, including a link to the ***Environmentally Preferable Purchasing Guide*** at <http://www.swmcb.org/EPPG/default.asp>. Additional information is available from EPA's Environmentally Preferable Purchasing website at <http://www.epa.gov/epp/>.

Resource persons:

Emily Moore, 651-215-0201, Emily.moore@moea.state.mn.us, Office of Environmental Assistance; Laura Millberg, Office of Environmental Assistance 651-215-0219 laura.millberg@moea.state.mn.us; and Erin Barnes-Driscoll, 215-0211, Erin.Driscoll@moea.state.mn.us

Joan Breisler, Department of Administration, Materials Management Division, joan.breisler@state.mn.us, 651-296-9071.

III.7 Landscaping

Employ landscaping that reduces the need for gasoline-powered maintenance equipment.

Agencies can reduce air quality impacts by:

- Replacing turf with alternative landscaping requiring less mowing,
- Not mowing on Air Pollution Alert days,
- Replacing gasoline or diesel-powered lawn and garden equipment with cleaner engines, and

- Reducing the need for pesticides through use of hardier native plants.

Environmentally friendly landscapes not only prevent pollution, but also conserve energy, increase wildlife habitat, reduce water use and improve water quality, prevent flooding, and may save money by reducing long-term maintenance costs. For information about design, maintenance, sources and benefits of native plants in Minnesota see: <http://www.dnr.state.mn.us/gardens/nativeplants/suppliers.html> or <http://www.sustland.umn.edu/>. A broad overview of native landscaping is available at: <http://www.epa.gov/greenacres/>.

Resource persons:

Jeff Ledermann, Office of Environmental Assistance 651-215-0236, jeff.ledermann@state.mn.us and
Laura Millberg, Office of Environmental Assistance 651-215-0219
laura.millberg@moea.state.mn.us

III.8 Renewable Energy

Purchase electricity generated from renewable sources.

Electricity generated from renewable sources, such as wind, creates significantly less emissions and encourages economic development in rural Minnesota. Minnesota law (§216B.169) requires that utilities offer “green” power (renewably generated) to their customers, which includes agencies. Green power can be purchased from all utilities in Minnesota. Contact the electricity provider for where the building is located for more information. The Department of Administration, Energy Management Service can help you arrange for this option.

Resource persons:

Rajan Thomas, Department of Administration, Energy Management Services, 651-297-2867, rajan.thomas@state.mn.us
Jeff Ledermann, Office of Environmental Assistance 651-215-0236, jeff.ledermann@state.mn.us.
Mike Taylor, Minnesota Department of Commerce, Energy Office 651-296-6830, mike.taylor@state.mn.us

IV. Additional Actions.

The actions listed in the executive order and outlined in this document were selected as ones most likely to result in the greatest benefit while remaining relatively easy for most departments to implement. In lieu of the actions listed in section III, a department may propose a different action that prevents air pollution to satisfy the requirements of the executive order. Additionally, departments are encouraged to go beyond the requirements of the order and implement additional actions.