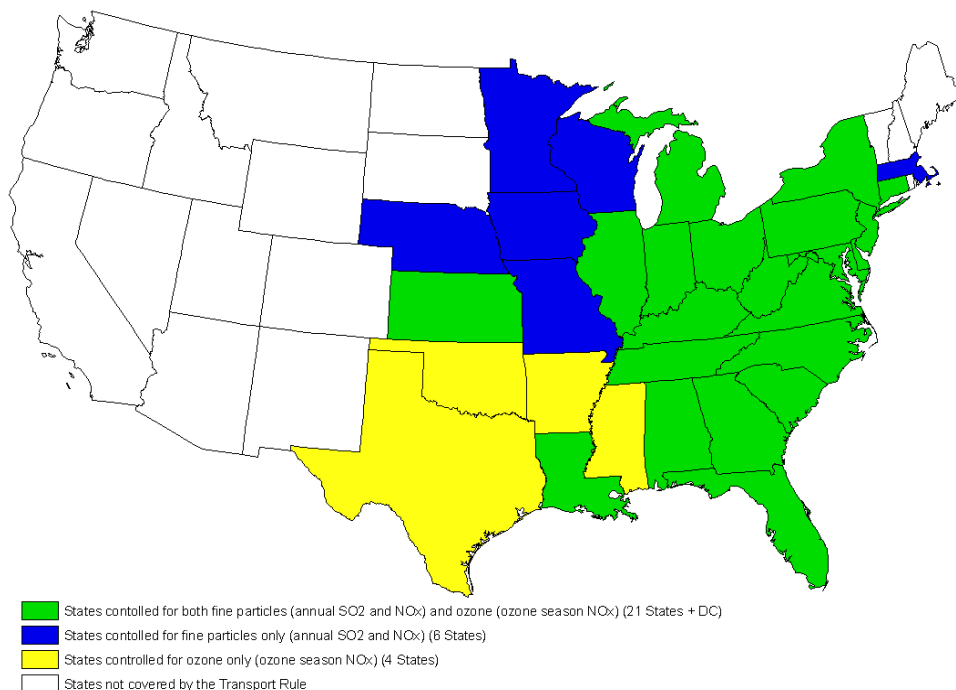


## Proposed Transport Rule Would Reduce Interstate Transport of Ozone and Fine Particle Pollution

### ACTION

On July 6, 2010 the US Environmental Protection Agency (EPA) proposed a rule that would protect the health of millions of Americans by helping states reduce air pollution and attain clean air standards. This rule, known as the Transport Rule would require 31 states and the District of Columbia to significantly improve air quality by reducing power plant emissions that contribute to ozone and fine particle pollution in other states.



The Clean Air Act requires EPA to address the problem of interstate transport of air pollution. EPA is proposing to put in place a new approach that helps states meet their obligations to reduce transported pollution and attain and maintain compliance with the national ambient air quality standards.

Specifically, this proposal would require significant reductions in sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions that cross state lines. These pollutants react in the atmosphere to form fine particles and ground-level ozone and are transported long distances, making it difficult for other states to achieve national clean air standards.

Emissions reductions will begin to take effect very quickly, in 2012 – within one year after the rule is finalized. By 2014, the rule and other state and EPA actions would reduce power plant SO<sub>2</sub> emissions by 71 percent over 2005 levels. Power plant NO<sub>x</sub> emissions would drop by 52 percent.

This proposed rule would replace EPA's 2005 Clean Air Interstate Rule (CAIR). A December 2008 court decision kept the requirements of CAIR in place temporarily but directed EPA to issue a new rule to implement the Clean Air Act requirements concerning the transport of air pollution across state boundaries. This action responds to the court's concerns.

Additional emission reductions will be needed for the nation to attain the existing ozone standard and any upcoming 2010 ozone standards. The Agency plans to propose a transport rule to address that standard in 2011 and finalize it in 2012. Each time EPA changes national ambient air quality standards, EPA will evaluate whether new emission reductions will be required from upwind states.

This rule would not disrupt a reliable flow of affordable electricity for American consumers and businesses.

The Agency will take public comment on the proposal for 60 days following publication in the *Federal Register*. EPA also plans to hold three public hearings on the proposed Transport Rule. The Agency will provide details on the timing and location for those hearings shortly in a separate *Federal Register* Notice.

The proposed rule would yield more than \$120 to \$290 billion in annual health and welfare benefits in 2014, including the value of avoiding 14,000 to 36,000 premature deaths. This far outweighs the estimated annual costs of \$2.8 billion.

## **KEY ELEMENTS OF PROPOSAL**

For the 31 states and the District of Columbia:

- Twenty-eight states would be required to reduce both annual SO<sub>2</sub> and NO<sub>x</sub> emissions. By reducing the emissions from the upwind states, the proposal would help downwind states attain air quality standards, specifically the 24-hour PM<sub>2.5</sub> standards established in 2006 and the 1997 annual PM<sub>2.5</sub> standards.
- Twenty-six states would be required to reduce NO<sub>x</sub> emissions during the hot summer months of the ozone season because they contribute to downwind states' ozone pollution. By reducing the emissions from the upwind states, the proposal would help downwind states' attain air quality standards, specifically the 1997 ground-level ozone standard.

The following table identifies the states covered by the proposed rule and the emissions they would need to control:

State	Reducing Emissions of SO <sub>2</sub> and NO <sub>x</sub> (2006 and/or 1997 PM <sub>2.5</sub> Standards)	Reducing Emissions of NO <sub>x</sub> during the Ozone Season (1997 Ozone Standards)
Alabama	X	X
Arkansas		X
Connecticut	X	X
Delaware	X	X
District of Columbia	X	X
Florida	X	X
Georgia	X	X
Illinois	X	X
Indiana	X	X
Iowa	X	
Kansas	X	X
Kentucky	X	X
Louisiana	X	X
Maryland	X	X
Massachusetts	X	
Michigan	X	X
Minnesota	X	
Mississippi		X
Missouri	X	
Nebraska	X	
New Jersey	X	X
New York	X	X
North Carolina	X	X
Ohio	X	X
Oklahoma		X
Pennsylvania	X	X
South Carolina	X	X
Tennessee	X	X
Texas		X
Virginia	X	X
West Virginia	X	X
Wisconsin	X	
TOTALS	28	26

EPA is proposing one approach for reducing SO<sub>2</sub> and NO<sub>x</sub> emissions in states covered by this rule and taking comment on two alternatives:

- In EPA's preferred approach, EPA is proposing to set a pollution limit (or budget) for each of the 31 states and the District of Columbia. This approach allows limited interstate trading among power plants but assures that each state will meet its pollution control obligations.
- In the first alternative, EPA is proposing to set a pollution limit or budget for each state. This option allows trading only among power plants within a state.
- In the second alternative, EPA is proposing to set a pollution limit for each state and to specify the allowable emission limit for each power plant and allow some averaging.

To assure emissions reductions, EPA is proposing federal implementation plans, or FIPs, for each of the states covered by this rule. These plans would reduce air pollution that *significantly* affects another state.

- The federal implementation plans put in place requirements necessary to reduce pollution in the covered states that *significantly* contributes to nonattainment of or interferes with maintenance of the national ambient air quality standards in other states.
- A state may choose to develop a state plan to achieve the required reductions, replacing its federal plan, and may choose which types of sources to control.

This proposal would clarify state obligations to reduce pollution affecting other states under the Clean Air Act by defining "significant contribution" and "interfere with maintenance." In defining these obligations, the Agency proposes to consider the magnitude of a state's contribution, the air quality benefits of reductions, and the cost of controlling pollution from various sources.

## **BENEFITS AND COSTS**

The emissions reductions from this proposed rule would lead to significant annual health benefits. In 2014, this rule would protect public health by avoiding:

- 14,000 to 36,000 premature deaths,
- 21,000 cases of acute bronchitis,
- 23,000 nonfatal heart attacks,
- 26,000 hospital and emergency room visits,
- 1.9 million days when people miss work or school,
- 240,000 cases of aggravated asthma, and
- 440,000 cases of upper and lower respiratory symptoms.

Pollution reductions would lead to improvements in visibility in national and state parks, and increased protection for sensitive ecosystems including Adirondack lakes and Appalachian streams, coastal waters and estuaries, and sugar maple forests.

EPA anticipates that power plants may use the following to achieve emission reductions:

- operate already installed control equipment more frequently,
- use low sulfur coal, or
- install control equipment such as low NO<sub>x</sub> burners, Selective Catalytic Reduction, or scrubbers (Flue Gas Desulfurization).

Compared to 2005, EPA estimates that by 2014 this proposal and other federal rules would lower emissions by:

- 6.3 million tons per year of SO<sub>2</sub>
- 1.4 million tons per year of NO<sub>x</sub>
  - including 300,000 tons per year of NO<sub>x</sub> during the ozone season.

The annual direct costs to the power sector of complying with this proposal (e.g., the cost of installing and operating advanced pollution control equipment or switching fuels) is \$2.8 billion (2006 \$).

The overall societal cost (an alternative way of calculating costs) is \$2.2 B annually. Social cost is the overall cost of the regulation to the U.S. This cost includes the amount borne by consumers that is passed through from industries incurring the compliance costs of the regulation.

The projected benefits range from \$120-290 billion (2006 \$) annually, significantly outweighing the costs of the proposed rule.

## **BACKGROUND**

When final, this Transport Rule will replace the 2005 Clean Air Interstate Rule (CAIR).

EPA issued CAIR on May 12, 2005 and the CAIR federal implementation plans (FIPs) on April 26, 2006.

In 2008, the US Court of Appeals for the DC Circuit remanded CAIR to the agency. This proposed Transport Rule will replace CAIR using new approaches consistent with the court's opinion.

The CAIR requirements for pollution reductions remain in effect and the CAIR regional control programs are operating while EPA works to complete this Transport Rule.

Under the Clean Air Act, states are required to submit plans (state implementation plans, or SIPs) to prohibit emissions that interfere with another state's ability to comply with national air ambient quality standards, called NAAQS.

When states do not submit the plans, EPA provides a federal implementation plan, or FIP, through rulemaking to achieve the required emissions reductions.

SO<sub>2</sub> and NO<sub>x</sub> contribute to the formation of fine particles. NO<sub>x</sub> reacts with volatile organic compounds to form ground-level ozone. Both of these pollutants cause a series of human health effects and environmental damages, including premature mortality, chronic and acute bronchitis, heart attacks, hospitalizations, emergency room visits, asthma attacks, lost days at work and school, acid deposition (acid rain), damage to sensitive forests and nitrogen-sensitive coastal waters, and impaired visibility at national parks and wilderness areas.

## **HOW TO COMMENT**

EPA will accept comment on the proposal for 60 days after publication in the *Federal Register*. Comments, identified by Docket ID No. EPA-HQ-OAR-2009-0491, may be submitted by one of the following methods:

- [www.regulations.gov](http://www.regulations.gov): follow the on-line instructions for submitting comments.
- E-mail: Comments may be sent by electronic mail (e-mail) to [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov).
- Fax: Fax your comments to: 202-566-1741
- Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
- Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, 1301, Constitution Ave., NW, Room 3334, Washington, D.C. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

## **FOR MORE INFORMATION**

To download a copy of the proposed rule, go to [www.epa.gov/airtransport](http://www.epa.gov/airtransport).

For more information, call Tim Smith of EPA's Office of Air Quality Planning and Standards at 919-541-4718 or email at [smith.tim@epa.gov](mailto:smith.tim@epa.gov).