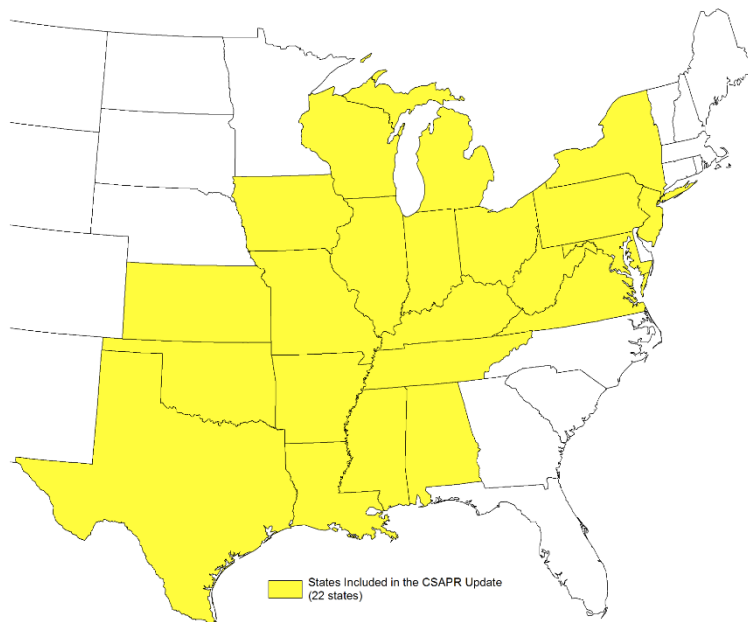


**FACT SHEET**  
**Final Cross-State Air Pollution Rule Update for the 2008 NAAQS**

**SUMMARY OF ACTION**

On September 7, 2016, the EPA finalized an update to the Cross-State Air Pollution Rule (CSAPR) ozone season program by issuing the CSAPR Update. This rule addresses the summertime (May – September) transport of ozone pollution in the eastern United States that crosses state lines to help downwind states and communities meet and maintain the 2008 ozone national ambient air quality standard (NAAQS). Starting in May 2017, this final rule will further reduce ozone season emissions of nitrogen oxides (NO<sub>x</sub>) from power plants in 22 states in the eastern United States, providing up to \$880 million in benefits and reducing ground-level ozone exposure for millions of Americans. The final rule reflects careful consideration of stakeholder input received during the public comment process for the proposal and the July 2015 Notice of Data Availability (NODA) and helps meet the Agency’s obligation under the Clean Air Act to address the interstate transport of ozone air pollution. The CSAPR Update also responds to the July 2015 remand of certain CSAPR budgets by the United States Court of Appeals for the D.C. Circuit.

**Final CSAPR Update Region for the 2008 Ozone NAAQS**



**BENEFITS AND COSTS OF EMISSION REDUCTIONS**

- Ground-level ozone, or smog, is linked to a variety of serious public health effects. Exposure to ozone can harm the respiratory system (the upper airways)

and lungs) and aggravate asthma and other lung diseases. Evidence indicates that exposure to ozone is likely to be one of the many causes of asthma development. Exposure to ozone is also linked to early death from respiratory causes.

- Emissions of NO<sub>x</sub> can react in the atmosphere to create ozone pollution, especially during the warm summer months. These pollutants can travel long distances, often crossing state lines and making it difficult for some downwind states to meet or maintain the national clean air standards that protect public health and welfare.
- The EPA, working with states, has decades of success under the Clean Air Act in achieving NO<sub>x</sub> emission reductions from power plants through implementation of programs like the NO<sub>x</sub> Budget Trading Program, the Clean Air Interstate Rule and CSAPR. Since 1997, power plants affected by these programs, along with other regional and state NO<sub>x</sub> emission control programs, have cut ozone season NO<sub>x</sub> emissions by over 75 percent, a reduction of almost 2 million tons. During this time period, from 2000 to 2015, average ozone concentrations across the U.S. have fallen, by approximately 17 percent. The CSAPR Update builds on the success of these programs and achieves further reductions.
- EPA estimates that the CSAPR Update and other changes already underway in the power sector will cut ozone season NO<sub>x</sub> emissions from power plants in the eastern United States by 20 percent – a reduction of 80,000 tons in 2017 compared to 2015 levels.
- These NO<sub>x</sub> and other co-pollutant emission reductions result in benefits worth up to an estimated \$880 million (2011\$) per year, including:
  - \$810 million from the prevention of harmful and costly health effects:
    - Over 67,000 asthma attacks,
    - Almost 56,000 days of missed work and school,
    - Over 240 hospital and emergency room visits, and
    - Up to 60 premature deaths.
  - \$66 million per year in climate-related co-benefits, due to reductions in carbon dioxide (CO<sub>2</sub>) emissions.
- The CSAPR Update will also provide improvements to visibility in national and state parks, and increases in protection for sensitive ecosystems including Adirondack lakes and Appalachian streams, coastal waters and estuaries, and forests.
- The benefits of the final rule far outweigh the estimated costs of \$68 million per year.

- For every dollar invested through the final CSAPR Update, American families will see up to \$13 in health benefits.
- The effects of this rule on employment and retail electricity prices are modest and vary year by year.
  - EPA analysis shows small employment gains and losses in both the electricity generation and fuels sectors as some companies upgrade and optimize existing NO<sub>x</sub> pollution control equipment to comply with the rule, and some generation is shifted from coal-fired electric generating units (EGUs) to gas-fired units.
  - The EPA projects that the final rule will have a minimal impact on electricity prices. Given the modest price changes expected under the rule, the impact on consumer, commercial and industrial annual electric bills is also small.

## **KEY FEATURES**

### **Helps meet the Clean Air Act “good neighbor” obligation**

- The Clean Air Act's "good neighbor" provision requires states to address the transport across state lines of air pollution that affects the ability of downwind states to meet and maintain clean air standards. This provision requires states to submit State Implementation Plans, or SIPs, demonstrating that the state is addressing its transported pollution that contributes significantly to air quality impacts in downwind states.
- The Clean Air Act gives the EPA a backstop role to issue Federal Implementation Plans (FIPs), as appropriate, in the event that states do not submit approvable SIPs. In order to meet the Agency’s backstop role, today’s action finalizes FIPs, and a partial remedy, for each of the 22 states in the CSAPR Update region.
- The final rule aligns compliance with the July 2018 attainment date for the 2008 NAAQS in light of two recent court decisions (*North Carolina v. EPA* and *NRDC v. EPA*). In response to the *NRDC* court decision, the EPA revised the Moderate area attainment date from December 2018 to July 2018 in the final Ozone SIP Requirements Rule. Because this revised date falls during the 2018 ozone season, the 2017 ozone season will be the last full season from which data can be used to determine attainment by the July 2018 deadline. The *North Carolina* decision requires the EPA to implement upwind emission reductions, to the extent feasible, aligned with the relevant attainment dates, which for the 2008 ozone NAAQS means implementation starting with the 2017 ozone season. The CSAPR Update will help states with relevant nonattainment areas demonstrate attainment with this standard.

- Given the need for near-term reductions to address public health concerns and help some downwind states meet their 2018 ozone attainment deadline, the final budgets are based on reductions that can be implemented cost-effectively and quickly, starting in 2017 and the rule requires that these reductions come from power plants. While final CSAPR Update does not fully address the problem of transported ozone pollution in the East, it will result in meaningful, near-term reductions in ozone pollution that crosses state lines.
- Today's final rule is focused on air pollution transport issues in the East. The EPA is not finalizing FIPs to address interstate transport of emissions in western states but will continue to work with western states to evaluate interstate transport in the West on a case-by-case basis.

**Provides a flexible, achievable and cost-effective path**

- EPA analysis indicates that the power sector can achieve a substantial amount of cost-effective NO<sub>x</sub> reductions beginning May 2017 that will help upwind states address their significant contribution to ozone air quality problems in downwind states.
- The final CSAPR Update affects 2,875 electric generating units at 886 coal-, gas-, and oil-fired facilities in 22 states.
- EPA's feasibility analysis demonstrates that the CSAPR Update requirements can be achieved for the 2017 ozone season and beyond while maintaining the reliability of the electric grid and ensuring that Americans continue to have access to affordable electricity. To establish emission budgets (i.e., tonnage-based, state-level emission limits), the agency focused on NO<sub>x</sub> reductions that can be made quickly, such as turning on or optimizing existing pollution control technology.
- The CSAPR Update implements these emission budgets through the CSAPR ozone season NO<sub>x</sub> trading program, which is familiar to states and power plant operators, and has successfully achieved cost-effective reductions. The CSAPR allowance trading program allows facility owner/operators to determine their own compliance path, including the buying, selling, and banking (saving for a future year) of allowances on the market. The rule does not require that any particular facility make specific reductions or use certain pollution controls. Under a trading program, sources have significant flexibility in deciding how to meet emission reduction requirements. At the end of the ozone season, compliance is measured by whether they hold enough allowances to cover their emissions.

- Power sector emissions trading is a proven approach to addressing regional air pollution issues in a cost-effective way. The EPA has over 20 years of experience implementing successful power sector trading programs, including previous programs to reduce ozone season NO<sub>x</sub> emissions and address acid rain.
- The EPA will continue to look at the availability, cost-effectiveness, and timing of emissions reductions from other sectors for potential inclusion in a future interstate transport rule.

### **Uses the existing, proven CSAPR 4-step framework**

- The CSAPR, finalized in July 2011, was designed to help states meet the 1997 ozone NAAQS. Court action delayed implementation of the rule during the course of litigation focused on EPA's approach to determining the amount of pollution that upwind states were contributing to downwind states' air quality problems. In 2014, the Supreme Court upheld the CSAPR and implementation began on January 1, 2015.
- With CSAPR, the EPA established a 4-step framework for helping states or EPA address interstate transport for current and future NAAQS. Now that the CSAPR approach to define upwind state obligations under the "good neighbor" provision has been affirmed by the Supreme Court, the EPA is applying this 4-step approach to the 2008 ozone NAAQS.
  1. Identify downwind receptors that are expected to have problems meeting or maintaining clean air standards;
  2. Determine which upwind states contribute to these identified problems in amounts sufficient to "link" them to downwind state air quality problems;
  3. Identify upwind emissions that significantly contribute to downwind nonattainment or interfere with downwind maintenance of a standard by quantifying available upwind emission reductions and apportioning upwind responsibility among the linked states; and
  4. Adopt FIPs that require sources to reduce the identified upwind emissions via regional emissions allowance trading programs.
- This rule is the first time that the EPA has updated an existing program to address interstate transport of air pollution under a new air quality standard.
- Under the CSAPR Update, the EPA has determined that ozone season NO<sub>x</sub> emissions in 22 eastern states affect the ability of downwind states to meet and maintain the 2008 ozone NAAQS. The 22 states include: Alabama, Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan,

Mississippi, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.

- In order to help some downwind states meet their 2018 ozone attainment deadlines and to deliver important benefits by the 2017 ozone season, EPA is updating the existing CSAPR ozone season program as quickly as possible. The final CSAPR Update adopts FIPs for all 22 states, updating the existing CSAPR NO<sub>x</sub> ozone season emission budgets for each state's fleet of electricity generating units (EGUs). EPA will implement these budgets through the existing CSAPR NO<sub>x</sub> ozone season allowance trading program.
- States can replace EPA's FIP starting in 2018 by submitting an approvable transport SIP, including by adopting the CSAPR Update trading program budgets into their SIPs.
- Because this final rule uses an existing and proven framework (the 4-step CSAPR approach), power plants in these 22 states can take action to quickly achieve cost-effective reductions.

### **Responds to the court**

- The 2014 Supreme Court decision that upheld CSAPR generally also remanded the CSAPR litigation to the D.C. Circuit for resolution of several remaining claims, and on July 28, 2015, the D.C. Circuit remanded the Phase 2 ozone season NO<sub>x</sub> budgets for 11 states to the EPA for reconsideration.
- In response to the D.C. Circuit remand, today's final CSAPR Update withdraws these remanded Phase 2 ozone season NO<sub>x</sub> budgets, which addressed states' transport obligations with regard to the 1997 ozone NAAQS.
- The CSAPR Update sets new Phase 2 CSAPR ozone season NO<sub>x</sub> emissions budgets for eight of these states (Maryland, New Jersey, New York, Ohio, Pennsylvania, Texas, Virginia, and West Virginia) to address interstate transport with respect to the more stringent 2008 ozone NAAQS.
- The final rule removes the other three states whose budgets were remanded (North Carolina, South Carolina and Florida) from the CSAPR ozone season NO<sub>x</sub> trading program because modeling for the final rule indicates that under the 2008 ozone NAAQS, these states do not contribute significantly to ozone air quality problems in downwind states.

### **BACKGROUND**

- In March 2008, the EPA strengthened the national air quality standard for ozone by setting an 8-hour standard at 75 parts per billion (ppb). This action triggered states' obligations to address and reduce pollution that crosses state lines and affects the ability of downwind areas to meet the standard. Reducing ozone season NO<sub>x</sub> pollution from upwind sources will help downwind states meet and maintain the 2008 ozone standard.
- The EPA issued the Cross-State Air Pollution Rule (CSAPR) in July 2011. CSAPR originally required 28 states in the eastern half of the United States to significantly improve air quality by reducing power plant emissions (SO<sub>2</sub>, annual NO<sub>x</sub> and ozone season NO<sub>x</sub>) that cross state lines and contribute to ozone and fine particle pollution (soot) pollution in other states. CSAPR was designed to help states meet the 1997 ozone and fine particle air quality standards and the 2006 fine particle air quality standard.
- CSAPR was scheduled to replace the Clean Air Interstate Rule (CAIR) starting on January 1, 2012. However, the timing of CSAPR's implementation was affected by D.C. Circuit actions that stayed and then vacated CSAPR before implementation. On April 29, 2014, the U.S. Supreme Court reversed the D.C. Circuit's vacatur, and on October 23, 2014, the D.C. Circuit granted EPA's motion to lift the stay and shift the CSAPR compliance deadlines by three years. The EPA revised the compliance deadlines in its regulations, and CSAPR Phase 1 implementation began January 1, 2015 for annual programs and May 1, 2015 for the ozone season program, with Phase 2 to begin in 2017.
- In preparation for issuing today's final rule, the EPA conducted an extensive outreach process with our state partners to assess and gather feedback on the next steps to address interstate air pollution transport.
  - On January 22, 2015, the EPA issued a memo and preliminary air quality modeling data to help states as they develop SIPs to address transport of air pollution for the 2008 ozone standard.
  - On March 15, 2015, the EPA attended a meeting organized by the State Collaborative on Ozone Transport in Washington, D.C. States and EPA shared their knowledge of actions planned and underway that could achieve NO<sub>x</sub> emissions reductions during the 2015 summer ozone season from emissions sources in eastern states.
  - On April 8, 2015, the EPA held a workshop in which states and EPA shared their understanding of actions that should be taken to address interstate ozone transport for the 2008 NAAQS under the "good neighbor" provision.
  - On July 23, 2015, the EPA issued a Notice of Data Availability, providing the opportunity to review and comment on the Agency's updated air quality modeling data. The EPA indicated in this NODA that the agency

intended to use the data in applying Steps 1 and 2 of the CSAPR approach to develop the proposed updates to state budgets.

- On November 16, 2015, the EPA proposed the updates finalized in this action and held a public hearing on December 17, 2015. The public comment period for the proposal ended on February 1, 2016. The EPA received over 15,000 comments on the proposal, the July 2015 NODA, and the public hearing, and considered these comments as we developed a final rule.
  
- On October 1, 2015, the EPA strengthened the ground-level ozone NAAQS, based on extensive scientific evidence about ozone's effects on public health and welfare. While reductions achieved by this final rule will aid in meeting and maintaining the 2015 standard, the CSAPR Update to reduce interstate emission transport with respect to the 2008 ozone NAAQS is a separate and distinct regulatory action and is not meant to address the CAA's "good neighbor" provision with respect to the 2015 ozone NAAQS final rule.

#### **FOR MORE INFORMATION**

- For more information on the final rule, including interactive maps, and to access the final rule, go to <https://www.epa.gov/airmarkets/final-cross-state-air-pollution-rule-update>.