



EPA Reduces Smokestack Pollution, Protecting Americans' Health from Soot and Smog

EPA Science Wednesday: EPA Study Shows Health Hazards Associated with Peat Wildfire Smoke

*Autumn newsletter*

Autumn in North Carolina

## EPA Reduces Smokestack Pollution, Protecting Americans' Health from Soot and Smog

***Clean Air Act protections will cut dangerous pollution in communities that are home to 240 million Americans***

**WASHINGTON** – Building on the Obama Administration's strong record of protecting the public's health through common-sense clean air standards – including proposed standards to reduce emissions of mercury and other air toxics, as well as air quality standards for sulfur dioxide and nitrogen dioxide – the U.S. Environmental Protection Agency (EPA) today finalized additional Clean Air Act protections that will slash hundreds of thousands of tons of smokestack emissions that travel long distances through the air leading to soot and smog, threatening the health of hundreds of millions of Americans living downwind. The Cross-State Air Pollution Rule will protect communities that are home to 240 million Americans from smog and soot pollution, preventing up to 34,000 premature deaths, 15,000 nonfatal heart attacks, 19,000 cases of acute bronchitis, 400,000 cases of aggravated asthma, and 1.8 million sick days a year beginning in 2014 – achieving up to \$280 billion in annual health benefits. Twenty seven states in the eastern half of the country will work with power plants to cut air pollution under the rule, which leverages widely available, proven and cost-effective control technologies. Ensuring flexibility, EPA will work with states to help develop the most appropriate path forward to deliver significant reductions in harmful emissions while minimizing costs for utilities and consumers.

“No community should have to bear the burden of another community's polluters, or be powerless to prevent air pollution that leads to asthma, heart attacks and other harmful illnesses. These Clean Air Act safeguards will help protect the health of millions of Americans and save lives by preventing smog and soot pollution from traveling hundreds of miles and contaminating the air they breathe,” said EPA Administrator Lisa P. Jackson. “By maximizing flexibility and leveraging existing technology, the Cross-State Air Pollution Rule will help ensure that American families aren't suffering the consequences of pollution generated far from home, while allowing states to decide how best to decrease dangerous air pollution in the most cost effective way.”

Carried long distances across the country by wind and weather, power plant emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) continually travel across state lines. As the pollution is transported, it reacts in the atmosphere and contributes to harmful levels of smog (ground-level ozone) and soot (fine particles), which are scientifically linked to widespread illnesses and premature deaths and prevent many cities and communities from enjoying healthy air quality.



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The rule will improve air quality by cutting SO<sub>2</sub> and NO<sub>x</sub> emissions that contribute to pollution problems in other states. By 2014, the rule and other state and EPA actions will reduce SO<sub>2</sub> emissions by 73 percent from 2005 levels. NO<sub>x</sub> emissions will drop by 54 percent. Following the Clean Air Act's "Good Neighbor" mandate to limit interstate air pollution, the rule will help states that are struggling to protect air quality from pollution emitted outside their borders, and it uses an approach that can be applied in the future to help areas continue to meet and maintain air quality health standards.

The Cross-State Air Pollution Rule replaces and strengthens the 2005 Clean Air Interstate Rule (CAIR), which the U.S. Court of Appeals for the D.C. Circuit ordered EPA to revise in 2008. The court allowed CAIR to remain in place temporarily while EPA worked to finalize today's replacement rule.

The rule will protect over 240 million Americans living in the eastern half of the country, resulting in up to \$280 billion in annual benefits. The benefits far outweigh the \$800 million projected to be spent annually on this rule in 2014 and the roughly \$1.6 billion per year in capital investments already underway as a result of CAIR. EPA expects pollution reductions to occur quickly without large expenditures by the power industry. Many power plants covered by the rule have already made substantial investments in clean air technologies to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions. The rule will level the playing field for power plants that are already controlling these emissions by requiring more facilities to do the same. In the states where investments in control technology are required, health and environmental benefits will be substantial.

The rule will also help improve visibility in state and national parks while better protecting sensitive ecosystems, including Appalachian streams, Adirondack lakes, estuaries, coastal waters, and forests. In a supplemental rulemaking based on further review and analysis of air quality information, EPA is also proposing to require sources in Iowa, Kansas, Michigan, Missouri, Oklahoma, and Wisconsin to reduce NO<sub>x</sub> emissions during the summertime ozone season. The proposal would increase the total number of states covered by the rule from 27 to 28. Five of these six states are covered for other pollutants under the rule. The proposal is open for public review and comment for 45 days after publication in the Federal Register.

**More information:** <http://www.epa.gov/crossstaterule/>



# EPA Science Wednesday: EPA Study Shows Health Hazards Associated with Peat Wildfire Smoke

*By Sarah Blau*

A few weeks ago my eyes wouldn't stop itching. That intense, burning itch you know you shouldn't scratch, but eventually you do. My irritated eyes were telling me that something was wrong, that some foreign species was polluting the air I breathe and my body did not like it. The source of this relentless itch I discovered from the news on the drive home—wildfires! Wildfire smoke, to be more exact, wafting some 200 miles from the North Carolina coast where [peat fires have been smoldering since early May](#).

As it turns out, I had only one minor symptom of something that can actually cause serious health problems.

In fact, I recently learned that a team of scientists led by EPA investigated the cardiovascular health effects of a similar [eastern NC peat fire in 2008](#). A paper describing the results of this study was published Monday by Environmental Health Perspectives.

Researchers collected emergency room (ER) records from counties directly affected by the 2008 fire's smoke plume and compared those records to ER records from smoke-free neighboring counties. Research statistics show that the smoke affected counties had an increase in ER visits by 65% for asthma, 59% for pneumonia and bronchitis, and 37% for symptoms of [heart failure](#).

Peat fires differ from western canopy wildfires in both the way they burn and the chemical composition of their smoke. This is the first known study to show that exposure to a peat fire can cause both respiratory and cardiovascular effects, and the first study to conclusively show associations between a wildfire and emergency department visits for heart failure symptoms.

Wildfires are inevitable, but we are not completely helpless to suffer their mal-effects. EPA's AIRNow website is an excellent source for information on both the [air quality in your region](#), and [how to protect yourself](#) from the hazard of wildfire smoke.

Whether it's severe cardiovascular illness or minor allergy-type symptoms, research by EPA and [others](#) has shown that wildfire smoke can have harmful health effects. Keep yourself informed of your local air quality and when conditions are poor, take appropriate actions. Maybe if I had taken a shorter morning walk outside with my dog, I wouldn't have had itchy eyes all day!

**About the author:** Sarah Blau is a student services contractor working with EPA's Science Communication Team.

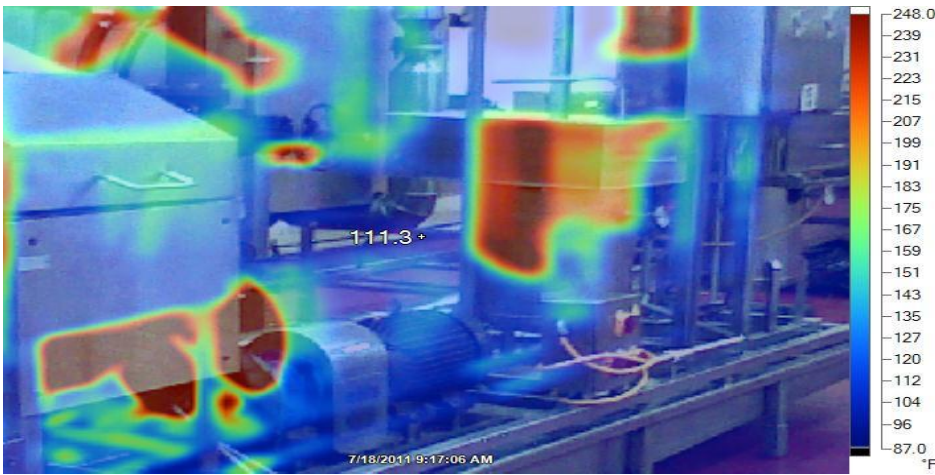
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# Photo-Hygienic



Bridge Demolition over the 405 Freeway on July 16, 2011



Thermal image of industrial grade deep frying equipment in operation



Hygienetec at Chicago Conference