

Background

- ❖ Particle pollution consists of tiny solids and liquid droplets of acids, chemicals, metals and dust suspended in the air. The tiniest, those less than 2.5 micrometers - about 1/20 the width of a human hair - are called fine particulate matter, or PM_{2.5}, and can penetrate deeply into lungs.
- ❖ This pollution is released into the air by power plants and industrial sources as well as mobile sources, particularly those that rely on diesel fuel. Nationally, power plants are responsible for more than 68 percent of the total annual emissions of sulfur dioxide, the primary ingredient of deadly particulate pollution.
- ❖ In response to the public health threat of PM_{2.5} pollution, EPA set federal standards for fine particulate matter in 1997. Areas that exceed these standards are designated as “nonattainment areas,” providing important tools to comply with federal law and clean the air. After successfully defending legal challenges brought by industry, **EPA is expected to identify these nonattainment areas this week.**
- ❖ For stationary sources such as power plants, these tools include additional pollution control technology requirements and pollution offset requirements for new sources. For mobile sources, a nonattainment designation brings with it the powerful tool of transportation conformity which requires transportation plans to include provisions to limit overall emissions.

Health Effects

- ❖ A recent study found that living in a region that fails to meet this standard increases a person’s risk of dying of lung cancer by about the same amount as being frequently exposed to second-hand smoke. **EPA estimates that achieving the federal standard for particle pollution would save 23,000 lives per year.**
- ❖ Studies by researchers affiliated with the American Cancer Society, the Harvard School of Public Health and other top universities and research institutions working for the EPA have estimated that fine particle pollution from power plants:
 - Shortens the lives of 1,133 North Carolinians each year
 - Causes 158,431 lost work days
 - Results in 1,013 hospitalizations
 - Causes 27,418 asthma attacks, 1,338 severe enough to require emergency room visits
- ❖ **North Carolinians have the 9th highest risk in the U.S. of dying from power plant pollution.**

What is being done?

- ❖ **SELC has advocated to EPA that it not accept the unduly narrow nonattainment boundaries proposed by North Carolina and instead set boundaries broad enough to protect public health.**
- ❖ Once nonattainment areas are identified, the state must develop a State Implementation Plan (SIP) to meet the health based standard by a 2010 deadline set by EPA. That plan will include ways to reduce emissions from mobile sources as well as stationary sources such as power plants.
- ❖ Those areas that do not meet federal deadlines are at risk for losing federal highway construction funds, and may be forced to impose stiffer regulations on power plants and other industrial sources.