

# Old King Coal

Dirty Power Plants Threaten Minnesota's Majesty

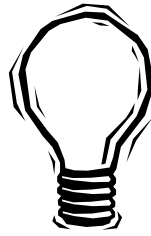
"The air pollutants sulphur dioxide and nitrogen oxides exacerbate acute respiratory illness . . . especially in individuals with pre-existing lung and cardiovascular disease, the elderly and children."

- Gerald William Orr, CEO, American Lung Association of Minnesota



## A flick of the switch sends pollution into the air that contributes to the following:

- Respiratory disease and premature death
- Increased visits of children with asthma to emergency rooms and hospital admissions
- Mercury poisoning in wildlife and humans
- Global climate change
- Ecological damage to agricultural crops, forests, rivers and lakes



## Did You Realize . . .

- We still generate 68 percent of our electricity in Minnesota from burning coal?
- Many coal-burning power plants built in the Eisenhower era still operate in Minnesota, spewing out tons of smog- and soot-forming pollutants into the air we breathe and toxic mercury into the waters we fish?
- Through a loophole in the federal law, these dirty plants have been "grandfathered" from the air pollution controls required by the Clean Air Act for new power plants, and they are exempted from certain emissions standards that these new plants have to meet?
- These old plants "legally" pollute the air at rates two to 13 times higher than new plants with modern emission controls?

## Percentage of Minnesota's Total Air Pollutants from Coal-Fired Power Plants

(1997 data)

Nitrogen Oxides (NOx)	61 percent (91,300 tons)
Sulfur Dioxide (SO <sub>2</sub> )	78 percent (90,100 tons)
Carbon Dioxide (CO <sub>2</sub> )	38 percent (35,067,200 tons)
Mercury (Hg)	30 percent (1,350 pounds)

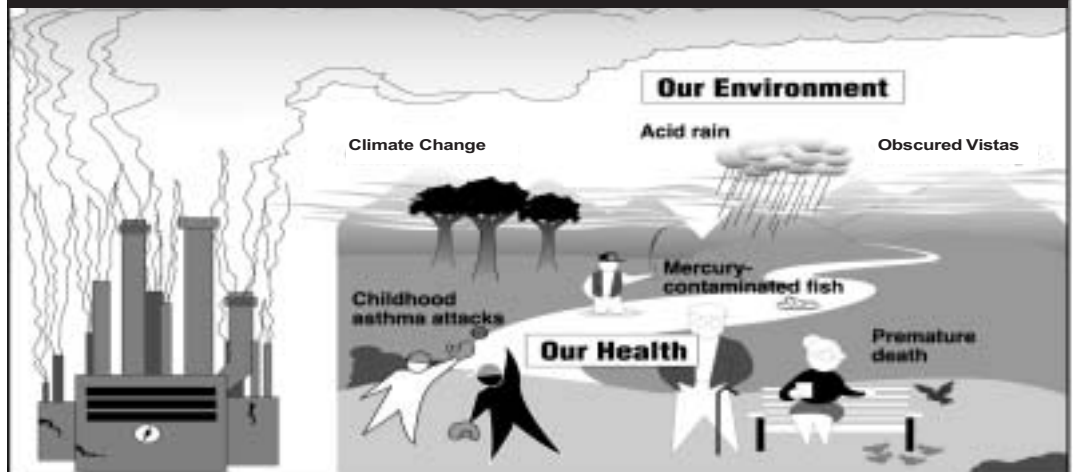
- The technology exists to clean these plants up and is being used by modern power plants already?

Requiring just NSP's Allen S. King plant near Stillwater to simply meet the pollution control standards required of new plants (achieving "environmental comparability") would yield reductions in smog-causing nitrogen oxide emissions equal to removing more than **1 million cars** from the road, which is equivalent to removing more than one-third of the cars registered in Minnesota!

## Pollution from Minnesota's Dirty Power Plants Harms Human Health and Natural Resources

- **Power plants are the single largest industrial source of soot- and ozone-causing pollution.**
- Every summer, ozone smog in Minnesota sends **1,100** people to the hospital and **3,300** to the emergency room in respiratory distress. Ozone smog in Minnesota also is responsible for more than 100,000 asthma attacks each summer.
- Each year more than **1.5 million** Minnesotans suffer some respiratory discomfort and symptoms due to smog-causing pollution.
- In the Twin Cities alone, **5,200** new cases of asthma were diagnosed in the summer of 1997.
- Dangerous levels of mercury have contaminated Minnesota's fish and wildlife, including our cherished state bird, the loon. As a result, the state warns children and women of childbearing age against eating fish from certain lakes.
- Acid rain continues to threaten Minnesota's lakes and forests.

## How Air Pollution From Power Plants Affects Our Lives



# Clean Air Solutions

**Izaak Walton League of America**  
 Midwest Office  
 1619 Dayton Ave., Suite 202  
 St. Paul, MN 55104  
 Phone: (651) 649-1446  
 Fax: (651) 649-1494  
 E-mail: swelch@igc.org

**"Mercury contamination undermines the cultural integrity, social cohesion and socio-economic well-being of our tribal communities of the Great Lakes region."**

- Bob Shimek, Indigenous Environmental Network, Bemidji, Minn.



## The Clean Power Solution

The single most effective solution: require **all** power plants in Minnesota to meet the same modern emission standards.

Old dirty power plants will have an unhealthy competitive advantage under electric utility deregulation unless they are required to meet the same pollution standards as new plants.

Cleaning up the old plants in Minnesota to meet new modern pollution standards would yield the following:

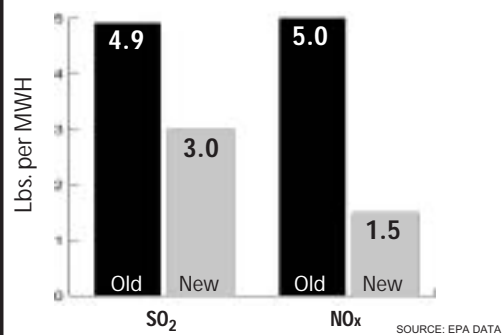
- A 70 percent reduction in nitrogen oxide (NO<sub>x</sub>), which causes smog, asthma attacks and damage to agricultural crops.
- A 40 percent reduction in sulfur dioxide (SO<sub>2</sub>), which causes acid rain, deadly soot, and reduced visibility in our parks and wilderness areas.
- Significant reductions in mercury as well as carbon dioxide (CO<sub>2</sub>), a cause of global warming.

## Encourage Clean, Renewable Energy

Nuclear power is not a clean, safe alternative to burning coal. Minnesota can begin to replace its current reliance on dirty coal plants and nuclear power through clean power alternatives, such as wind, solar energy, fuel cells and energy efficiency. As we move toward a renewable future, we should replace coal with natural gas, a much cleaner burning fuel.

## The Benefits of Cleaning Up

Making Minnesota's old power plants meet the same emissions standards as new power plants would deliver a significant reduction in key pollutants.

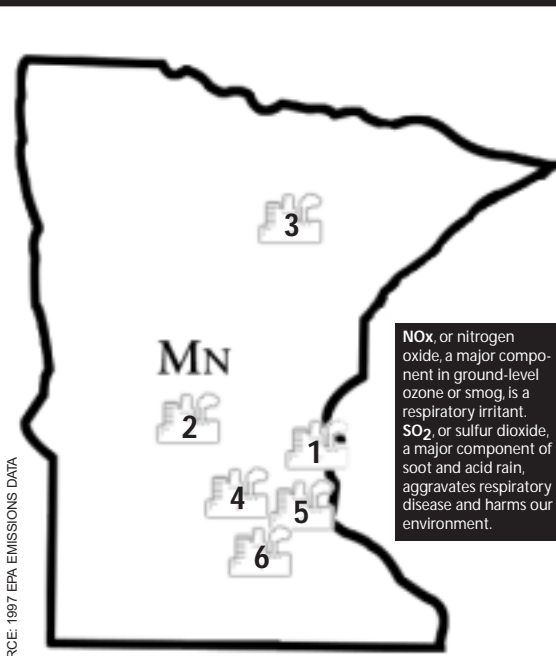


## What Can You Do?

**GET INVOLVED** in our campaign:

- Call your local utility and ask them what steps they are taking to clean up and meet modern pollution standards.
- Urge Minnesota Pollution Control Agency Commissioner Studders, your Minnesota state senators and representatives, and Gov. Ventura to join us as we call on dirty power plants to clean up and meet modern pollution standards. Write Gov. Ventura at Jesse Ventura, Governor, 130 State Capitol, 75 Constitution Avenue, St. Paul, MN 55125; or call (651) 296-3391.
- Join IWLA and others in our **power plant cleanup campaign**. Call (651) 649-1446 and ask for Sarah Welch.

## Let's Clean Up Minnesota's Polluting Power Plants!



NO<sub>x</sub>, or nitrogen oxide, a major component in ground-level ozone or smog, is a respiratory irritant. SO<sub>2</sub> or sulfur dioxide, a major component of soot and acid rain, aggravates respiratory disease and harms our environment.

1. **ALLEN S. KING**, Northern States Power Company, Bayport  
 NO<sub>x</sub>: 22,813 tons    SO<sub>2</sub>: 28,575 tons
2. **SHERBURNE COUNTY**, Northern States Power Company, Becker  
 NO<sub>x</sub>: 25,107 tons    SO<sub>2</sub>: 21,422 tons
3. **CLAY BOSWELL**, Boswell Energy Center, Cohasset  
 NO<sub>x</sub>: 13,738 tons    SO<sub>2</sub>: 14,529 tons
4. **RIVERSIDE**, Northern States Power Company, Minneapolis  
 NO<sub>x</sub>: 13,841 tons    SO<sub>2</sub>: 11,565 tons
5. **HIGH BRIDGE**, Northern States Power Company, St. Paul  
 NO<sub>x</sub>: 5,490 tons    SO<sub>2</sub>: 3,848 tons
6. **BLACK DOG**, Northern States Power Company, Burnsville  
 NO<sub>x</sub>: 7,292 tons    SO<sub>2</sub>: 3,247 tons

SOURCE: 1997 EPA EMISSIONS DATA