



Fact Sheet

South Carolina Department of Health and Environmental Control • www.scdhec.gov

Nitrogen Dioxide & Sulfur Dioxide

What are they?

Sulfur dioxide (SO₂) and nitrogen dioxide (NO₂) are both parts of smog (which is usually not visible in South Carolina) and acid rain.

Sulfur dioxide comes from the burning of coal and oil. It is very smelly. The main sources of SO₂ are power plants.

Nitrogen dioxide comes from the burning of fossil fuels (like gasoline). The main sources of NO₂ are cars, trucks, and power plants.

What are the health effects of SO₂ and NO₂?

- SO₂ and NO₂ both can cause lung disease.
- NO₂ can also increase your chances of getting viruses.
- SO₂ can cause eye irritation and burning of the skin.

How is acid rain formed?

Acid rain is formed high up in the atmosphere when SO₂ and NO₂ combine with water and sunlight. When this reaction forms acid it falls to the ground in the form of acid rain or snow.

What are the environmental effects of acid rain?

- harmful to plant life
- harmful to aquatic life
- causes damage to forests
- causes damage to vegetation
- corrodes statues and monuments

How can you protect the environment from acid rain?

- Carpool, walk, or bike whenever possible to decrease emissions from automobile exhaust.
- Conserve electricity.
- Keep cars well tuned and maintained.

For more information, visit:

<http://www.scdhec.gov/environment/baq/AirPollutants/effects.asp>

<http://www.epa.gov/air/sulfurdioxide/>

<http://www.epa.gov/air/nitrogenoxides/>

DHEC's Bureau of Air Quality, Innovations Section provides information on environmental topics. Readers are encouraged to reproduce this material. For more information about air quality issues, please call (803) 898-4123 or visit our website at www.scdhec.gov/baq. Please send written correspondence to: DHEC's Bureau of Air Quality, Innovations Section, 2600 Bull Street, Columbia, SC 29201.

