



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Chemtrade/Marsulex Information Sheet

Geography: Six facilities:

Cairo, Ohio, Oregon, Ohio, Beaumont, Texas, Shreveport, Louisiana, Tulsa, Oklahoma, and Riverton, Wyoming

Industry Capacity:

Industrial capacity has been growing and prices for sulfuric acid have been rising based on increased demand from ethanol production facilities and other industries. Chemtrade and Marsulex are among the largest actors in this industry.

Emissions reductions:

Sulfur dioxide reductions of 3,000 tons per year, based on new scrubbers and better limits for existing scrubbers. There are different limits for each of the six facilities as they have different configurations which make possible slightly different control capability. The short term limits on SO₂ are the most important, ranging from 1.7 pounds to 2.5 pounds of SO₂ per ton of product.

Injunctive Relief:

The value of the injunctive relief (scrubbers and monitors) is estimated to cost more than \$12 million. Continuous emission monitors will be required for SO₂ and opacity at all facilities. All facilities will have scrubbers for SO₂.

Environmental Benefits:

Sulfur Dioxide (SO₂) SO₂ causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. Particularly sensitive groups include people with asthma who are active outdoors and children, the elderly, and people with heart or lung disease.

Respiratory Effects from Gaseous SO₂ - Peak levels of SO₂ in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO₂ gas and particles cause respiratory illness and aggravate existing heart disease.

Respiratory Effects from Sulfate Particles - SO₂ reacts with other chemicals in the air to form tiny sulfate particles. When these are breathed, they gather in the lungs and are associated with increased respiratory symptoms and disease, difficulty in breathing, and premature death.

Visibility Impairment - Haze occurs when light is scattered or absorbed by particles and gases in the air. Sulfate particles are the major cause of reduced visibility in many parts of the U.S., including our national parks.

Acid Rain - SO₂ and nitrogen oxides react with other substances in the air to form acids, which fall to earth as rain, fog, snow, or dry particles. Some may be carried by the wind for hundreds of miles.

Plant and Water Damage - Acid rain damages forests and crops, changes the makeup of soil, and makes lakes and streams acidic and unsuitable for fish. Continued exposure over a long time changes the natural variety of plants and animals in an ecosystem.

Aesthetic Damage - SO₂ accelerates the decay of building materials and paints, including irreplaceable monuments, statues, and sculptures that are part of our nation's cultural heritage.

Penalty: \$700,000 total with the US receiving \$460,000 of this total and the balance going to the states of Oklahoma, Ohio and Louisiana. Louisiana and Oklahoma get \$60,000 each and Ohio gets \$120,000, part of which will be dedicated to some state SEPs.

Supplemental Environmental Projects: Two small state (Ohio) projects valued at \$48,000.

State and Tribal Partners: Ohio, Louisiana, Oklahoma, and the Northern Arapahoe Tribe. Although the Northern Arapahoe Tribe is a plaintiff-intervenor, they did not receive a portion of the penalty because they are not eligible to receive penalties under the Clean Air Act.