

12/20/96

FACT SHEET

PROPOSED IMPLEMENTATION PROGRAM FOR EPA'S NATIONAL AMBIENT AIR QUALITY STANDARDS FOR SULFUR DIOXIDE

TODAY'S ACTION...

- ◆ The Environmental Protection Agency (EPA) is today proposing a State-administered "Intervention Level" Program under authority of the Clean Air Act to address short-term (5-minute) high levels or peaks of sulfur dioxide (SO₂). The program is designed to provide public health protection for asthmatics who may be exposed to high short-term (SO₂) levels in localized situations.

WHY IS EPA CONCERNED ABOUT SO₂?

- ◆ SO₂ is emitted mostly by burning fuels, such as coal, for heat and power, and also from industrial sources such as petroleum refineries, primary smelters, and pulp and paper mills. SO₂ contributes significantly to the formation of acid rain, which harms lakes and streams, and can damage trees, crops, historic buildings, and monuments. Adverse health effects associated with high concentrations of SO₂ include effects on breathing, respiratory illness, and aggravation of existing respiratory and cardiovascular disease. Asthmatics, the elderly, and children are most susceptible to the health effects of SO₂.

WHY IS EPA PROPOSING AN INTERVENTION LEVEL PROGRAM?

- ◆ In May 1996, EPA announced its decision not to revise the existing health-based or primary national ambient air quality standards for SO₂. EPA believes that the current standards provide adequate nationwide protection from adverse health effects associated with sustained, low-level exposure to SO₂. EPA also believes that the current health-based standard, in conjunction with the existing 3-hour welfare-based standard, provides substantial protection for most asthmatics against acute, short-term peak exposures to SO₂.
- ◆ However, EPA remains concerned that some asthmatics in very localized situations may be repeatedly exposed to short-term peak SO₂ levels of concern while engaged in mild physical activity. Therefore, EPA is today proposing a new Intervention Level program to address the potential health risks posed by short-term peak levels of SO₂ in specific,

localized circumstances.

- ◆ The Intervention Level Program would be managed by the States. Because the potential health risks are very site specific, EPA believes that States are in the best position to determine whether an industrial facility or source is causing or contributing to high 5-minute peaks of concern. Under the program, States, working in partnership with industrial sources and local communities, would tailor control programs, where necessary, to address any short-term peaks of SO₂ in the most flexible and cost-effective manner possible.

HOW WOULD THE INTERVENTION LEVEL PROGRAM WORK?

- ◆ Under the authority of section 303 of the Clean Air Act, the Intervention Level Program establishes two 5-minute ambient concentration levels: a concern level of 0.6 parts per million (ppm), and an endangerment level of 2.0 ppm. At or above the concern level, States and Tribal governments are encouraged to investigate the frequency, magnitude, and the sources of 5-minute peak concentrations; consider the risk to nearby populations; determine if corrective action is necessary; and implement the needed corrective action. If the endangerment level is exceeded, the affected State or Tribe is expected to take remedial action to prevent imminent and substantial endangerment to public health and welfare caused by high 5-minute ambient concentrations of SO₂.
- ◆ Under the Intervention Level Program, States and Tribes are given the flexibility to relocate existing air pollution monitors to areas that may have high 5-minute ambient concentrations of SO₂. If needed, States would work with industrial facilities and affected communities to decide upon the best course of corrective action, based on local circumstances, to provide public health protection for asthmatics.
- ◆ States and Tribes may execute the Intervention Level Program under the general authority currently present in their State Implementation Plans (SIPs). Therefore EPA does not anticipate the need for SIP revisions.
- ◆ EPA plans to develop guidance to assist States and Tribes in implementing the Intervention Level Program. The guidance will be made available after the program is issued in final form.

- ◆ In the event that States or Tribal governments do not act to address imminent and substantial endangerment to public health and welfare posed by short-term peaks of SO₂, EPA will take corrective actions under authority of section 303 of the Clean Air Act to ensure public health protection.

BACKGROUND

- ◆ On March 7, 1995, EPA proposed three regulatory options for addressing short-term SO₂ peaks. These options were: 1) augmenting the implementation of the existing standards by focusing on those sources or source types likely to produce high 5-minute peak concentrations, (2) establishing a new regulatory program under the authority of section 303 of the Clean Air Act to supplement protection provided by the existing NAAQS, and (3) revising the existing NAAQS by adding a new 5-minute NAAQS of 0.60 ppm.
- ◆ After reviewing public comments and further analysis of the nature of the problem, EPA concluded that States are in the best position to address potential public health risks posed by short-term SO₂ peaks. Therefore, today's proposal allows States the flexibility to implement corrective action, where necessary, to fit local circumstances.

WHAT IS EPA'S OVERALL STRATEGY FOR CONTROLLING SO₂ EMISSIONS?

Four existing programs make up EPA's strategy to control SO₂ emissions nationwide:

- ◆ The National Ambient Air Quality Standards (NAAQS) Program establishes two levels of standards: primary and secondary. Primary standards are designed to protect public health, while secondary standards protect public "welfare", such as effects of air pollution on vegetation, buildings and monuments, and visibility. The primary standard for ambient air concentrations of SO₂ is 0.14 ppm averaged over 24 hours, and 0.030 ppm over the course of a year. The 24-hour primary standard may not be exceeded more than once per year, whereas the annual standard is never to be exceeded. The secondary standard for SO₂ is set at 0.50 ppm averaged over a three-hour period. The secondary standard may not be exceeded more than once per year.
- ◆ The Acid Rain Program will reduce annual emissions of SO₂ from electric utility boilers by 10 million tons below 1980 levels (a 50 percent reduction). This will be accomplished

through a flexible, market-based "cap and trade" program that reduces and permanently limits SO₂ emissions from these sources. Compliance with the first phase of this program began in January 1995 with 445 of the biggest, dirtiest boilers in the country required to comply. The second phase begins in the year 2000 and covers an additional 1600 boilers. The ultimate goal will be met before the year 2010.

- ◆ The New Source Review/Prevention of Significant Deterioration Program protects air quality from deteriorating in clean areas (areas that meet the national air quality standards or NAAQS) by requiring that new "major" (large) industrial sources of SO₂ conduct air quality analyses before receiving a permit to build new facilities or modify existing ones.
- ◆ The New Source Performance Standards Program sets emission limits for new or modified sources. EPA has established these standards for sources, such as utilities, primary lead smelters, and copper smelters.

FOR MORE INFORMATION...

- ◆ Anyone with a computer and a modem can download the proposal from the Clean Air Act board of EPA's electronic Technology Transfer Network (TTN) bulletin board by calling (919) 541-5742. Information about how to access the board is available by calling (919) 541-5384. You can also access the TTN directly through the World Wide Web at <http://ttnwww.rtpnc.epa.gov>. For further information about the proposed Intervention Level Program, contact Eric Crump at (919) 541-4719. For questions concerning the SO₂ NAAQS, contact Susan Stone at (919) 541-1146. For further information about EPA's Acid Rain Program, call the Acid Rain Hotline at (202) 233-9620.