

State of California

AIR RESOURCES BOARD

RESOLUTION 76-11

February 20, 1976

WHEREAS, the Air Resources Board, pursuant to Section 39606 of the Health and Safety Code, has the authority, after holding a public hearing, to adopt standards of ambient air quality;

WHEREAS the Air Resources Board, pursuant to Section 39601 of the Health and Safety Code has the authority to adopt standards, rules and regulations necessary for the proper execution of the powers and duties granted to and imposed upon it;

WHEREAS the Board has held a public hearing, pursuant to the Administrative Procedure Act, to consider the California ambient air quality standard for airborne sulfates on February 20, 1976;

WHEREAS the State Department of Health has recommended that regulatory actions be taken to prevent exposures to airborne sulfates in excess of 25 micrograms per cubic meter of sulfate, averaged over 24 hours;

WHEREAS the Air Resources Board finds substantial evidence of adverse effects attributable to airborne sulfates on human health, vegetation, property and visibility,

NOW, THEREFORE, BE IT RESOLVED that the Air Resources Board establishes an ambient air quality standard for airborne sulfates of 25 micrograms per cubic meter of sulfate, averaged over 24 hours, and that Title 17, Section 70200 of the California Administrative Code be amended to add a new horizontal column at the bottom of the Table therein to read as follows:

|          |  |          |   |   |
|----------|--|----------|---|---|
| Sulfates | 25 $\mu\text{g}/\text{m}^3$ total sulfates, AIHL #61 | 24 hours | a) decrease in ventilatory function<br>b) aggravation of asthmatic symptoms<br>c) aggravation of cardio-pulmonary disease<br>d) vegetation damage<br>e) degradation of visibility<br>f) property damage | This standard is based on a Critical Harm Level, not a threshold value. |
|----------|--|----------|---|---|

BE IT FURTHER RESOLVED, that the staff seek additional information concerning mechanisms of sulfate aerosol formation, the relative toxicity of the various sulfate compounds, particle size range, appropriate measuring methods for the various sulfate compounds, establishment of averaging periods other than 24-hours, particularly for the protection of California agricultural and other vegetation, and report such additional information to the Board not later than February 1, 1977 for consideration by the Board in reviewing the standard.

## APPENDIX B

### PERSONAL PROTECTIVE ACTIONS DURING AIR POLLUTION EPISODES

#### 3. SULFUR DIOXIDE OR SULFATE

The following actions are recommended:

**FOR SENSITIVE PEOPLE** (At all episode Stages)  
 with **CHRONIC LUNG DISEASE OR RECURRENT ASTHMA,**  
**CHRONIC HEART DISEASE,**  
**THE ELDERLY OR THE CHRONICALLY ILL**  
**FOR HEALTHY ADULTS OR THE EXERCISING YOUNG, who feel effects** (At all episode Stages)  
**FOR THE GENERAL PUBLIC** (At Stage 3)

1. **REMAIN INDOORS** until the episode is terminated. Keep doors and windows closed if possible. Use your air conditioner (if you have one) to recirculate indoor air and keep cool. An activated charcoal air filter can further reduce sulfur oxide levels.
2. **AVOID AEROSOLS, DUSTS, FUMES,** and other respiratory irritants. Reduce to a minimum domestic activities, cooking, hobbies, or occupations which produce irritants.
3. **DO NOT SMOKE,** and avoid places where others are smoking. Pollutants from smoking make the health challenge worse.
4. **AVOID CONTACT** with persons suffering from respiratory infections.
5. **AVOID TRAFFIC CONGESTED AREAS** or industrial zones where pollutants are generated, if you must be outside.
6. **AVOID STRENUOUS OUTDOOR PHYSICAL ACTIVITIES,** exertion or excitement which increase your breathing rate and the oxygen requirements of your body. Plan less active diversions for the young.
7. **WITH STAGE 2 OR STAGE 3 EPISODES,** there may be the onset or considerable worsening of symptoms: chest tightness, nose and throat irritation, coughing, phlegm, wheezing or shortness of breath.

Follow your physician's advice, or consult him again. Know which medications to increase for specific symptoms. Do not become dehydrated, and obtain sufficient rest and sleep.

Know the location of your nearest emergency treatment facility in case your doctor advises increased therapy, such as inhaled medication, ventilation assistance, oxygen treatment or other.

#### EPISODE CRITERIA LEVELS

|                       | Averaging Time  | Stage 1        | Stage 2        | Stage 3        |
|-----------------------|-----------------|----------------|----------------|----------------|
| <b>Sulfur Dioxide</b> | <b>1 Hour</b>   | <b>0.5 ppm</b> | <b>1.0 ppm</b> | <b>2.0 ppm</b> |
|                       | <b>24 Hours</b> | <b>0.2 ppm</b> | <b>0.7 ppm</b> | <b>0.9 ppm</b> |

|   |                           |                            |  |  |
|---|---------------------------|----------------------------|--|--|
| <b>Sulfate, in Combination with Oxidant</b> | <b>24 Hours (Sulfate)</b> | <b>25 ug/m<sup>3</sup></b> |  |  |
|   | <b>1 hour (Oxidant)</b>   | <b>.20 ppm</b>             |  |  |