

State of California
AIR RESOURCES BOARD

Resolution 77-41

June 29, 1977

WHEREAS, Health and Safety Code Section 39606(b) requires the Air Resources Board to adopt standards of ambient air quality for the protection of the public health, safety, and welfare, including, but not limited to, health, illness, irritation to the senses, aesthetic value, interference with visibility, and effects on the economy;

WHEREAS, Health and Safety Code Section 39606(b) requires standards relating to health effects to be based upon the recommendations of the State Department of Health;

WHEREAS, the Board has received a recommendation from the State Department of Health, and its Air Quality Advisory Committee, that a 24-hour standard of 0.04 ppm sulfur dioxide (SO₂) is reasonable in light of what is known about human health effects, with a margin of safety;

WHEREAS, the Board has received and reviewed a substantial body of evidence and testimony, in both written and oral form, from its staff and expert members of the public, at hearings held on April 27-29, and May 13, 1977, relating to the adverse health effects of SO₂ (including written comments submitted prior to June 7, 1977);

WHEREAS, the Board also received a substantial body of evidence and testimony, in both written and oral form, from its staff and expert members of the public, at the same hearings; relating to the adverse effects of SO₂ on vegetation, ecosystems and materials;

WHEREAS, Dr. Marjorie W. Evans, a member of the Board, has prepared "Proposed Findings re California Air Quality Standard for Sulfur Dioxide (24-Hour)," dated June 27, 1977, which contains introductory statements regarding the Board's legal authority, a listing of the staff study and hearing witnesses, findings re adverse health effects of SO₂, and the following recommended SO₂ standard for protection of public health:

0.05 ppm (conductimetric method, or equivalent), in the presence of oxidant (ozone) in excess of the state standard, or in the presence of suspended particulate matter in excess of the state 24-hour suspended particulate matter standard.

WHEREAS, Dr. Evans is currently evaluating the evidence and testimony for the purpose of preparing findings and recommendations for an SO₂ standard protective of vegetation, ecosystems and materials;

WHEREAS, the Board has held proceedings in conformance with the provisions of Chapter 4.5 (commencing with Section 11371), Part 1, Division 3, Title 2 of the Government Code;

NOW, THEREFORE, BE IT RESOLVED, that the Board adopts the "Proposed Findings re California Air Quality Standards for Sulfur Dioxide (24-Hour)," dated June 27, 1977 as amended by the Board on June 29, 1977.

BE IT FURTHER RESOLVED, that the Board amends Section 70200 of Title 17, California Administrative Code, by amending the horizontal columns relating to SO₂ to read as follows:

Substance	Concentration and Methods	Duration of Averaging Periods	Most Relevant Effects	Comments
Sulfur Dioxide	0.5 ppm conductimetric method	1 hour	a. approximate odor threshold b. possible alteration in lung function	Alteration in lung function was found at this level in only one study. Other studies reported higher concentrations to cause this effect.
	0.05 ppm conductimetric method, with oxidant, (ozone) in excess of state standard, or with suspended particulate matter in excess of state 24-hr suspended particulate matter standard	24 hours	a. will help prevent respiratory disease in children. b. higher concentrations associated with excess mortality.	a. Further studies on co-carcinogenic role are necessary. b. Does not include effects on vegetation, ecosystem and materials. c. May not include a margin of safety.