

State of California
AIR RESOURCES BOARD

Resolution 87-92

November 12, 1987

Agenda Item No. : 87-14-2

WHEREAS, Health and Safety Code Sections 39600 and 39601 require the Air Resources Board (the "Board") to adopt rules and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Health and Safety Code Section 39606(b) requires the Board to adopt standards of ambient air quality in consideration 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) provides that standards relating to health effects shall be based upon the recommendation of the State Department of Health Services;

WHEREAS, the Board periodically reviews existing state ambient air quality standards to ensure that they reflect current scientific knowledge;

WHEREAS, the existing state ambient air quality standard for oxidant (as ozone) of 0.10 parts per million (ppm) (not to be equalled or exceeded), averaged over one hour, was adopted in 1974 and is based upon evidence of aggravation of respiratory disease in humans;

WHEREAS, pursuant to Sections 108 and 109 of the federal Clean Air Act, the Environmental Protection Agency has adopted national ambient air quality standards for ozone based on health and welfare effects; both the primary standard (health protection) and the secondary standard (welfare protection) are 0.12 ppm (not to be exceeded), averaged over one hour;

WHEREAS, the Board has received and considered a recommendation from the Department of Health Services dated September 18, 1987 to replace the existing state ambient air quality standard for oxidant with an ambient air quality standard for ozone of 0.08 ppm (not to be exceeded), averaged over one hour;

WHEREAS, it is Board policy, when reviewing an ambient air quality standard, to revise the definition of compliance with the standard such that the standard is violated when concentrations "exceed" rather than "equal or

exceed" the level of the standard; under this revised definition, the existing 0.10 ppm standard would be approximately equivalent to a 0.09 ppm standard;

WHEREAS, the Board has received and considered a substantial body of evidence both written and oral, presented to it by staff, the Department of Health Services, other scientists, industry representatives, and other members of the public relating to the proposed amendment of the standard;

WHEREAS, the California Environmental Quality Act and Board regulations require that action not be taken as proposed if feasible mitigation measures or alternatives exist which would substantially reduce or avoid any significant adverse environmental effects of the proposed action;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2 of the Government Code;

WHEREAS, the Board finds that:

Information from controlled human exposure studies, epidemiological studies and animal exposure studies indicates that an ozone standard is necessary to protect public health and that the principal harmful effects of ozone exposure to humans are to the respiratory tract and include pulmonary function decrements and localized lung edema;

An ozone concentration level of 0.12 ppm is the lowest observed level of effects to humans, based upon controlled laboratory studies of short-term exposures;

In view of the uncertainties in scientific knowledge which exist as to the precise level at which adverse human health effects occur, a margin of safety is necessary and appropriate to protect the public health;

The Department of Health Services cited epidemiological studies which suggest a relationship between adverse effects and peak ozone concentrations in a range of concentrations that included 0.10 ppm and below for one hour, and animal studies which found decreased disease resistance in mice at levels down to 0.08 ppm. Additional animal studies cited by the Department of Health Services have found significant biochemical and cellular alterations in the respiratory tract from short and long-term ozone exposures in a range including 0.10 ppm and below that, while observed in animals, are suggestive of adverse health effects in both normal and sensitive individuals. However, the epidemiological studies were susceptible to influence by pollutants other than ozone and by other environmental variables, and the animal studies do not necessarily provide direct quantitative concentrations for similar effects in humans;

Based on the Department of Health Services recommendation and in consideration of all the other evidence presented to the Board, an ozone standard of 0.09 ppm (not to be exceeded), averaged over one hour, is necessary and includes an adequate margin of safety to

prevent substantial risk of harm to human health as a result of short-term exposures and to provide protection against probable effects of long-term exposures;

Information from crop loss assessment and economic analysis indicates that an ozone standard of 0.09 ppm (not to be exceeded), averaged over one hour, serves to provide an acceptable limit on injury and yield loss in important crops and consequently limit economic loss to growers and consumers as well as a limit on injury and damage to forests, native plant communities and ornamental plants and damage to materials;

Although other photochemical oxidants can cause harm to human health and vegetation, since the available evidence indicates that ozone is primarily responsible for adverse health and vegetation effects in California and ozone is currently measured to indicate compliance with the oxidant standard, the oxidant (as ozone) standard should be changed to an ozone standard;

WHEREAS, the Board further finds that amendment of the regulations set forth in Attachment A will not have a significant adverse environmental impact;

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments of Sections 70100 and 70200, Title 17, California Administrative Code, as set forth in Attachment A;

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to adopt the regulatory changes set forth in Attachment A, after making them available to the public for a period of 15 days, and with such minor modifications as may be appropriate in light of written comments submitted during this period, provided that the Executive Officer shall present the regulations to the Board for further consideration if he determines that this is warranted in light of the written comments received.

BE IT FURTHER RESOLVED that, in determining what control strategies and measures are necessary to attain and maintain the one-hour ozone standard, local districts may, in consultation with the Board, take into account whether an exceedance of the standard is caused by a rare and localized meteorological event such as an atmospheric intrusion of stratospheric ozone that may be anticipated to occur only at long intervals. Districts shall not be required to adopt generally applicable control measures to address an exceedance which is caused by such exceptional circumstances.

I hereby certify that the above is a true and correct copy of Resolution 87-92, as adopted by the Air Resources Board.


Cary Allison, Board Secretary

State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Public Hearing to Consider Amendment to Regulations
Regarding the State Ambient Air Quality Standard for Oxidant

Agenda Item No.: 87-14-2

Public Hearing Date: November 12, 1987

Response Date: N/A

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant
environmental issues pertaining to this item. The staff report
identified no adverse environmental effects.

Response: N/A

Certified: _____
Board Secretary

Ray DeWain

Date: _____
5/17/88

State of California

MEMORANDUM

To : Gordon Van Vleck
Secretary
Resources Agency

Date : August 24, 1988

Subject : Filing of Notice of
Decisions of the Air
Resources Board


Cary Allison
Board Secretary

From : Air Resources Board

Pursuant to Title 17, Section 60007 (b), and in compliance with Air Resources Board certification under Section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decisions and response to environmental comments raised during the comment period.

ATTACHMENTS

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