

State of California
AIR RESOURCES BOARD

Resolution 05-31

April 28, 2005

Agenda Item No.: 05-4-1

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the ARB or Board) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39606(a)(2) of the Health and Safety Code requires the Board to adopt standards for ambient air quality "in consideration of 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"; and requires health-based standards to be based on the recommendation of the Office of Environmental Health Hazard Assessment (OEHHA);

WHEREAS, section 39606(d)(2) of the Health and Safety Code requires the Board to revise ambient air quality standards determined to be inadequate to protect infants and children with an adequate margin of safety, and to establish the standards "at levels that adequately protect the health of the public, including infants and children, with an adequate margin of safety";

WHEREAS, section 39606(b) of the Health and Safety Code requires OEHHA to assess four specific factors relevant to infants and children in preparing its recommendation to the Board: exposure patterns, special susceptibility, effects of exposure, and interaction of multiple air pollutants;

WHEREAS, section 39014 of the Health and Safety Code defines "ambient air quality standards" (AAQS) to mean "specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of air pollution to undesirable effects established by the state board";

WHEREAS, section 70101 of title 17, California Code of Regulations, states that "the objective of ambient air quality standards is to provide a basis for preventing or abating the effects of air pollution, including effects on health, esthetics and economy"; that "pollution levels below those shown in the standards should not ordinarily produce the associated effects"; that "ambient air quality standards shall be reviewed and subject to modification whenever substantial pertinent new information becomes available and at least once every five years"; and that "to the extent feasible, review of a standard shall be coordinated with the review of any corresponding federal standard by the Environmental Protection Agency";

WHEREAS, based on section 39014 of the Health and Safety Code and on sections 70100 and 70200 of title 17, California Code of Regulations, California ambient air quality standards have four elements: (1) a definition of the air pollutant, (2) an averaging time, (3) a pollutant concentration, and (4) a monitoring method to determine levels of the pollutant in the ambient air relative to attainment of the standard;

WHEREAS, section 39606(d)(1) of the Health and Safety Code required the Board, in consultation with OEHHA, by December 31, 2000, "to review all existing health-based ambient air quality standards to determine whether, based on public health, scientific literature, and exposure pattern data, these standards adequately protect the health of the public, including infants and children, with an adequate margin of safety";

WHEREAS, on December 7, 2000, the Board approved a joint ARB/OEHHA staff report that contained preliminary reviews of all of the health-based California ambient air quality standards, and found that health effects may occur in infants, children, and other potentially susceptible subgroups exposed to several pollutants at or near levels corresponding to current California ambient air quality standards;

WHEREAS, on December 7, 2000, the Board further found that the ambient air quality standard for ozone had the second highest priority for review and revision;

WHEREAS, the current state ambient air quality standard for ozone is 0.09 ppm for one-hour, and the current national ambient air quality standards for ozone are 0.12 ppm for one-hour and 0.08 ppm for eight-hours;

WHEREAS, on June 4, 2004 ARB received the OEHHA draft recommendation for revision of the ozone standard, which was to retain the current one-hour standard of 0.09 ppm and add a new eight-hour standard of 0.070 ppm;

WHEREAS, on June 21, 2004, staff released for public review a draft report titled "Review of the California Ambient Air Quality Standard for Ozone, Public Review Draft," authored by ARB and OEHHA staff, which contained draft recommendations for amending the ozone standard as recommended by OEHHA;

WHEREAS, during July and August 2004, public workshops were held in three California cities to receive public input on staff's draft proposal to amend the ozone standard;

WHEREAS, in accordance with section 57004 of the Health and Safety Code, the draft staff report and proposed amendments were peer reviewed by the Air Quality Advisory Committee (AQAC), an independent scientific review committee, comprised of scientific experts on ozone and appointed by the Office of the President of the University of California, and were discussed at a public meeting on January 11 and January 12, 2005;

WHEREAS, the AQAC submitted its written report on the draft staff recommendations for amending the ozone standard on February 24, 2005, finding that the

recommendations for revising the ozone standard are based upon sound scientific knowledge, methods, and practices, and are supported by the scientific literature;

WHEREAS, on March 11, 2005 the ARB released its final staff report titled "Review of the California Ambient Air Quality Standard for Ozone, Staff Report, Initial Statement of Reasons for Proposed Rulemaking," which presents the findings of the joint ARB/OEHHA staff review of the health and scientific literature on ozone, as well as exposure pattern data for ozone in California, including background, and staff recommendations for amending the ozone standard;

WHEREAS, on April 11 and 12, 2005 public workshops were held to receive public input on staff's final proposal to amend the ozone standard;

WHEREAS, staff wishes to amend the Staff Report to clarify the discussion regarding the incremental health benefits of attaining the new standard;

WHEREAS, the California Environmental Quality Act and Board regulations approved by the Resources Secretary as a certified regulatory program require that no project which may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts, and that the decision-maker shall make a written response to significant environmental issues;

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 has received and reviewed a substantial body of evidence and testimony, in both written and oral form, from the ARB and OEHHA staff, AQAC, and members of the public prior to and at a duly-noticed public hearing held on April 28, 2005 relating to the adverse health effects of ozone, and finds as follows:

1. The potential health impacts of exposure to ozone air pollution are significant and include reduced pulmonary function, increased respiratory symptoms, airway hyperreactivity and airway inflammation, in addition to premature mortality, increased hospital admissions for cardiopulmonary causes, and exacerbation of bronchitis, asthma, and respiratory symptoms. The groups most at risk of experiencing adverse responses include children and adults who are active outdoors, and outdoor workers.
2. The scientific review suggests the need for separate standards for one-hour and eight-hour averaging times to provide adequate public health protection from both short, peak exposures, and longer, lower concentration exposures.
3. The scientific review indicates that the current one-hour ozone standard of 0.09 ppm should be retained.

4. The scientific studies currently available do not indicate that the existing one-hour standard for ozone needs to be revised.
5. The establishment of a new eight-hour average ozone standard at 0.070 ppm, not to be exceeded, is necessary to protect public health with an adequate margin of safety. This conclusion is based on controlled human exposure studies demonstrating decrements in pulmonary function, increased respiratory symptoms, increased airway reactivity and induction of airways inflammation in healthy and asthmatic adults exposed for 6.6 to 8 hours to 0.08 ppm ozone.
6. The current monitoring method for ozone, which uses the ultraviolet (UV) photometry method for determining compliance with the State ambient air quality standard for ozone, should be retained, and all federally approved UV methods (i.e., samplers) for ozone should be incorporated by reference as "California Approved Samplers." This will result in no change in air monitoring equipment practices, and will align state monitoring requirements with federal requirements.
7. The monitoring methods proposed should eliminate any issues that may exist concerning the acceptable use of samplers for state and federal programs.
8. The health benefits reducing ozone from current levels to the proposed standards for ozone are substantial, including an estimated reduction of 580 premature deaths per year, and reduced hospitalizations related to chronic obstructive pulmonary disease, cardiovascular disease, and other respiratory diseases, including bronchitis, and asthma, as well as reduction in statewide school absenteeism.
9. The proposed standards provide the required margin of safety that allows for and compensates for scientific uncertainty, as well as the lack of precise predictions regarding the health impacts of air pollutants on a multiplicity of potentially susceptible subpopulations.
10. The proposed standards are, by state statute, required to be set at health protective levels and will, in and of themselves, have no adverse environmental or economic impacts. While the federal EPA has promulgated NAAQS for ozone, the different state standards are justified by air quality considerations in this state to benefit human health, public safety, and welfare. Furthermore, any impacts from implementing the standards will be considered in detail as control measures to attain and maintain the standards are developed.
11. The review of the proposed standards has been coordinated to the extent feasible with the review of the corresponding federal standards, which has led to proposed methods, samplers, and instruments for measuring ozone in California that include the adoption of federal reference methods.
12. Due to California's unique circumstances, and the seriousness of the health impacts of ozone and the requirements of state laws, it is necessary and appropriate to proceed with the adoption of State ozone standards before the federal EPA completes its review of the National Ambient Air Quality Standard for ozone.

13. Because of the potential negative impacts on both air quality and the competitiveness of certain California businesses if the NAAQS for ozone are significantly less stringent than California's standards, the ARB should cooperate with other interested parties through the Clean Air Science Advisory Committee (CASAC) and U.S. EPA process, to achieve a health-protective outcome in the federal standard-setting process.
14. No reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the ARB would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.
15. Clarification of the health benefits discussion in the Staff Report is useful in enhancing public understanding of the incremental health effects of attaining the new one-hour standard.

NOW, THEREFORE, BE IT RESOLVED that the Board approves amendments to sections 70100, 70100.1 and 70200, title 17, California Code of Regulations, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to make the amended Staff Report available for public review and comment on the amendments for a period of at least 15 days, and to consider any comments received during this period before taking final administrative action to adopt the standard as approved by the Board.

BE IT FURTHER RESOLVED that the Board reiterates a goal of accelerated reductions in ozone concentrations over time in order to attain the health-based ambient standards for ozone, to be accomplished in consultation with local air quality management districts and air pollution control districts, other stakeholders, and the public.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to actively participate in the EPA's review of the NAAQS for ozone, including the timely submittal of comments to the CASAC and active staff participation where appropriate.

I hereby certify that the above is a true and correct copy of Resolution 05-31, as adopted by the Air Resources Board.

Lori Andreoni, Clerk of the Board

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April 28, 2005

Identification of Attachments to the Resolution

Attachment A: Amendments to sections 70100 and 70200 and new section 70100.1, title 17, California Code of Regulations, as included in the Initial Statement of Reasons released March 11, 2005