# TITLE 17. CALIFORNIA AIR RESOURCES BOARD

## NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF A REGULATION TO LIMIT OZONE EMISSIONS FROM INDOOR AIR CLEANING DEVICES

The Air Resources Board (the Board or ARB) will conduct a public hearing at the time and place noted below to consider adoption of a regulation establishing emission standards and certification, labeling and recordkeeping requirements for indoor air cleaning devices introduced into commerce in California that are used in occupied spaces. The proposed regulation would, among other things, require that such devices be tested and certified not to emit ozone at an emission concentration in excess of 0.050 parts per million (ppm), and prohibit the introduction into California of such devices that exceed this emission standard.

DATE: September 27, 2007

TIME: 9:00 a.m.

PLACE: South Coast Air Quality Management District
Auditorium
21865 East Copley Drive
Diamond Bar, CA 91765-4182

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., September 27, 2007, and may continue at 8:30 a.m., September 28, 2007. This item may not be considered until September 28, 2007. Please consult the agenda for the meeting, which will be available at least 10 days before September 27, 2007, to determine the day on which this item will be considered.

For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette or computer disk. Please contact ARB's Disability Coordinator at (916) 323-4916 by voice or through the California Relay Services at 711, to place your request for disability services. If you are a person with limited English and would like to request interpreter services, please contact ARB's Bilingual Manager at (916) 323-7053.

## INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW

### Sections Affected

Proposed adoption of new sections 94800, 94801, 94802, 94803, 94804, 94805, 94806, 94807, 94808, 94809, and 94810, title 17, California Code of Regulations. The final revised 2007 American National Standards Institute/Underwriters Laboratories, Inc. (ANSI/UL) Standard 867 and ANSI/UL Standard 507 for mechanical devices, would be

incorporated by reference. Ozone emissions would be determined using the final 2007 revision of Section 37 of ANSI/UL Standard 867. The current revised version that is still undergoing ANSI/UL approval is dated June 22, 2007; the final revised Section 37 is expected to be approved in fall 2007.

## Background

A number of manufacturers sell devices represented to be air purifiers or air cleaners, which in fact purposely generate large quantities of ozone, the primary component of photochemical smog. Operation of these devices, also known as "ozone generators," in occupied spaces has been known for some time to cause unhealthful ozone exposures, that is, exposure to elevated room ozone concentrations above the health-based state and federal ambient air quality standards for ozone. Currently, Canada does not certify any type of intentional ozone-generating air cleaners for residential use.

Other common types of air cleaners include electrostatic precipitators (ESPs), ionizers, and mechanical filter devices. ESPs and ionizers may emit ozone as a byproduct of their functioning, although the levels are usually much lower than those produced by ozone generators. Mechanical filter devices emit little or no ozone.

Exposure to ozone is a public health concern. Ozone is a highly reactive molecule composed of three atoms of oxygen, and can damage the lungs and airways. Ozone inflames and irritates respiratory tissues, and can worsen asthma symptoms. Ozone exposure can cause coughing, chest tightness and impaired breathing. Elevated exposures have the potential to induce permanent lung damage, and chronic ozone exposure can increase the risk of premature death in persons with poor health. Ozone can also damage plants, fabrics and building materials such as paint, walls, and flooring. Ozone is a primary component of photochemical smog, and has been recognized and regulated as an outdoor air pollutant for many years. The current California outdoor air quality standards for ozone are 0.09 ppm (averaged over one hour) and 0.070 ppm (averaged over eight hours).

The market for air cleaning devices, particularly for residential use, has grown as public concern over indoor air quality has increased. Annual sales of air cleaners have surpassed $400 million nationally. A recent survey found that 14 percent of California households currently own an air cleaner or owned one during the past five years. An estimated 828,000 California residents reside in the approximately 2 percent of households that own an ozone generator, while about 2.8 million people live in the approximately 8 percent of households that own an air cleaner that may emit ozone as a by-product.

In 2006 the Legislature passed Assembly Bill 2276 (Pavley) which was signed into law by Governor Schwarzenegger (stats 2006 ch 770). The legislation enacted Health and Safety Code sections 41985-41986, which direct ARB to regulate ozone emissions from portable air cleaners sold in California that are used in occupied spaces by December 31, 2008.

## Description of the Proposed Regulatory Action

The regulation proposed by staff (the proposal) would require that indoor air cleaning devices used in occupied spaces that are introduced into commerce in California must not emit a concentration of more than 0.050 ppm of ozone. The proposed regulation would specify requirements for testing, labeling, certification and record-keeping, and establish specific exemptions as described below.

The proposal would apply to any person or entity who manufactures, sells, supplies, offers for sale, or introduces into commerce into California indoor air cleaning devices that are used in occupied spaces. Under the proposal, indoor air cleaning devices could not be manufactured for use in California 12 months after the effective date of the regulation ("manufacture date"), nor could they be sold, supplied, offered for sale or introduced into commerce in California 9 months after the manufacture date ("sell-through date"), unless the devices are certified by ARB.

Under the proposal, an application for certification of an indoor air cleaning device would be submitted to ARB by a manufacturer, or by a professional association or certification organization on behalf of a manufacturer. Application information would include manufacturer contact information, specified details about the brand and model of the air cleaning device, and specified details about the testing conducted on that model device. All indoor air cleaning devices, unless exempted, would be tested following the ANSI/UL Standard 867, or ANSI/UL Standard 507 for mechanical devices. Ozone emissions would be determined using the 2007 revision of Section 37 of ANSI/UL Standard 867. All testing must be performed by a Nationally Recognized Testing Laboratory (NRTL) recognized by the U.S. Occupational Safety and Health Administration, or by an approved NRTL Program 2 independent laboratory. An appropriate certification mark or listing mark would be shown on each device once that model passes the test. Devices certified for use in California would also have to display a certification label on the product packaging. Specific wording would be required for non-medical devices, while medical devices must be labeled in accordance with federal law.

Specific industrial uses for air cleaning devices as defined would be exempt from the proposed requirements. Also, devices designed to be integrated into heating and air conditioning systems (e.g. "in-duct" systems) would be exempt from the proposed regulation at this time. However, these exemptions may be reevaluated by ARB at a future time. Additionally, based on their known *de minimis* ozone emissions, indoor air cleaning devices using only mechanical filtration would be exempt from the ozone testing requirements after certain required documentation is submitted, but such devices would still have to be tested for electrical safety, and would be subject to labeling requirements.

Finally, under the proposal, manufacturers, distributors, retailers, sellers and testing laboratories would have to maintain production, quality control, sales and testing records for at least three years, and make them available to ARB upon request.

## COMPARABLE FEDERAL REGULATIONS

Health and Safety Code section 41986 requires that the proposed regulation be consistent with federal law. The U.S. Food and Drug Administration has promulgated a maximum acceptable level of ozone of 0.05 ppm for medical devices, as well as certain labeling requirements (21 CFR § 801.415). The emission standard in the proposed regulation is equivalent to the federal limit of 0.05 ppm, as required. Health and Safety Code section 41986 also requires that an indoor air cleaning device that is a medical device shall be labeled in compliance with federal law, including Section 801.415 of Title 21 of the Code of Federal Regulations.

## AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS

The ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the potential environmental and economic impacts of the proposal and supporting technical documentation. The report is entitled: "Staff Report: Initial Statement of Reasons for the Proposed Regulation to Limit Ozone Emissions from Indoor Air Cleaning Devices."

Copies of the Staff Report and full text of the proposed regulatory language may be accessed on the ARB's web site listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1st Floor, Sacramento, CA 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing on September 27, 2007.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the ARB's website listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons, Ms. Peggy Jenkins, Manager of the Indoor Exposure Assessment Section, at (916) 323-1504 or by email at mjenkins@arb.ca.gov, or Mr. Chris Jakober, Air Pollution Specialist, at (916) 327-8693 or by email at cjakober@arb.ca.gov.

Further, the agency representative and designated back-up contact persons to whom nonsubstantive inquiries concerning the proposed administrative action may be directed are Ms. Alexa Malik, Manager, Board Administration & Regulatory Coordination Unit (BARCU), (916) 322-4011, or Ms. Amy Whiting, Regulations Coordinator, BARCU, (916) 322-6533. The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR, and all subsequent regulatory documents, including the Final Statement of Reasons, when completed, are available on the ARB Internet site for this rulemaking at www.arb.ca.gov/regact/2007/iacd07/iacd07.htm.

## COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies and private persons and businesses in reasonable compliance with the proposed regulatory action are presented below and in specific detail in the Staff Report.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action would create costs to the ARB. The ARB is expected to incur ongoing costs of approximately $175,000 per year for one additional staff and contract funds to implement the regulation and enforce compliance. Costs would not be created for any other state agency, or in federal funding to the state. The regulation would not create costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other nondiscretionary cost or savings to state or local agencies.

In developing this regulatory proposal, the ARB staff evaluated the potential economic impacts on representative private persons or businesses. The proposed regulation would affect the manufacturers, distributors, sellers, and consumers of portable indoor air cleaners if the products are marketed for sale in California. The potential economic impact of the regulations would primarily include the cost to test and certify air cleaning devices to meet the 0.050 ppm emission concentration standard for ozone. Additionally, all manufacturers of ozone generators and a few manufacturers of ESPs and ionizers that do not meet the emission limit would also need to redesign their products. Annualized costs for a typical small business (producing an average of three models of air cleaners) during the first five years are estimated to be between $50,000 and $179,000, and for a typical larger share company (producing an average of 6-8 models of air cleaners) are estimated to be between $132,000 and $357,000. These estimates include all aspects of certification, i.e., testing, labeling, redesign for those requiring it, and certification paperwork. The added cost to consumers is estimated to range from $11 to $16 per air cleaner. The total statewide cost to businesses and representative private persons or consumers to comply with the proposed regulation during its lifetime is estimated to be $8,000,000, the cost to businesses, or $12,100,000, the cost to consumers if compliance costs and a profit margin are passed on to consumers. Some small manufacturers may be impacted over the short-term due to costs for testing as well as the possible need for some to redesign certain models. The potential costs, however, are estimated to be insignificant. Costs are also expected to decline rapidly after five years because it is estimated that there would only be turnover costs for the introduction of new models. ARB believes that all of the potential economic impacts are either absorbable or would be passed on to consumers.

Because manufacturers are fully expected, and required, to comply with the regulations, enforcement costs to manufacturers should also be negligible.

The Executive Officer has made an initial determination that the proposed regulatory action would not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states or on representative private persons. Of an estimated 61 manufacturers of indoor air cleaning devices, two large manufacturers and at least two smaller manufacturers are based in California. All manufacturers of indoor air cleaning devices marketed for sale in California would be subject to the proposed regulations, so there should be no effect on the business competitiveness of the California-based manufacturers.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action would not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. Overall, the impacts should be absorbable. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action would affect small businesses. Some distributors and retailers of ozone generators are one- and two- person businesses where there may be significant impacts if their manufacturers decide to not seek certification for the California market.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the Executive Officer has found that the proposal would establish no reporting requirements, but it would establish certain recordkeeping requirements. Under the proposal, businesses would have to maintain certain specified records relating to production, quality control, sales and testing for three years and make them available to the Air Resources Board upon request. The Executive Officer has found that these recordkeeping requirements are necessary for the health, safety, and welfare of the people of the State of California**.**

Before taking final action on the proposed regulatory action, the Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board 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.

## SUBMITTAL OF COMMENTS

Interested members of the public may also present comments orally or in writing at the meeting, and in writing or by e-mail before the meeting. To be considered by the Board,

written comments not physically submitted at the meeting must be received **no later than 12:00 noon, September 26, 2007,** and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Facsimile submittal: (916) 322-3928

Please note that under the California Public Records Act (Government Code section 6250 *et seq*.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

The Board requests but does not require that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

## STATUTORY AUTHORITY AND REFERENCES

This regulatory action is proposed under the authority granted to the ARB in Health and Safety Code section 41986. This action is proposed to implement, interpret and make specific sections 41985, 41985.5, and 41986 of the Health and Safety Code; and sections 91000 et seq. of title 17, subchapter 4 (Disclosure of Records) of the California Code of Regulations; 29 CFR 1910.7, 21CFR 801.415; section 201 U.S.C. 321.

## HEARING PROCEDURES

The public hearing will be conducted in accordance with the California Administrative Procedure Act, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action. In the event that such modifications are made, the full regulatory text, with the modifications clearly indicated, will be made available to the public for written comment at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from the ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1st Floor, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

Tom Cackette
Acting Executive Officer

Date: July 31, 2007