UPDATED INFORMATIVE DIGEST

AMENDMENTS TO THE REGULATION FOR LIMITING OZONE EMISSIONS FROM INDOOR AIR CLEANING DEVICES

Sections Affected:

Proposed amendments to California Code of Regulations, title 17, sections 94800, 94801, 94802, 94803, 94804, 94805, 94806, 94807, 94808, and 94809.

Documents Incorporated by Reference:

The following documents are incorporated in the regulation by reference in California Code of Regulations, title 17, section 94805:

- Canadian Standards Association (CSA) "Standard for Electrostatic Air Cleaners," C22.2 no. 187-20, as revised by CSA on January 21, 2020. Copyrighted.

- American National Standards Institute/Underwriters Laboratory (ANSI/UL), 2018. "Standard 73 for Safety for Motor-Operated Appliances," as revised by ANSI/UL on August 8, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 153 for Safety for Portable Electric Luminaires," as revised by ANSI/UL on July 27, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 484 for Safety for Room Air Conditioners," as revised by ANSI/UL on September 6, 2018. Copyrighted

- ANSI/UL, 2018. "Standard 507 for Safety for Electric Fans," as revised by ANSI/UL on November 15, 2018. Copyrighted

- ANSI/UL, 2018. "Standard 867 for Safety for Electrostatic Air Cleaners," as revised by ANSI/UL on August 7, 2018. Copyrighted

- ANSI/UL, 2016. "Standard 998 for Safety for Humidifiers," as revised by ANSI/UL on April 4, 2016. Copyrighted.

- ANSI/UL, 2018. "Standard 1017 for Safety for Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines," as revised by ANSI/UL on July 19, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 1278 for Safety for Movable and Wall- or Ceiling-Hung Electric Room Heaters," as revised by ANSI/UL on August 20, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 1993 for Safety for Self-Ballasted Lamps and Lamp Adapters," as revised by ANSI/UL on August 6, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 1995 for Safety for Heating and Cooling Equipment," as revised by ANSI/UL on August 17, 2018. Copyrighted.

- ANSI/UL, 2018. "Standard 1598 for Safety for Luminaires," as revised by ANSI/UL on August 28, 2018. Copyrighted.

- ANSI/UL, 2017. "Standard 499 for Electric Heating Appliances," as revised by ANSI/UL on February 23, 2017. Copyrighted.

Background and Effect of the Proposed Regulatory Action:

The California Air Resources Board (CARB) proposed to amend the California Code of Regulations, title 17, subarticle 1, sections 94800 – 94809 to reduce the potential for Californians to be exposed to ozone from indoor air cleaning devices. Assembly Bill (AB) 2276 (Pavley, Stats. 2006, ch. 770) directed CARB to adopt regulations to protect public health from ozone emitted by indoor air cleaning devices. CARB approved a regulation, which became effective in 2008, that requires all portable indoor air cleaners sold in California after October 18, 2010, to be tested, certified, and labeled as complying with electrical safety standards, and have an ozone emission concentration limit of 0.050 parts per million. Besides the testing requirement, the regulation requires manufacturers to notify all of their known distributors, retailers, and sellers about the regulation, provide them with a copy of the regulation, and send documentation of this notification and contact information for their distributors, retailers, and sellers to CARB. Finally, manufacturers, distributors, retailers, sellers, and testing laboratories are required to update and maintain production, quality control, sales, and testing records for at least three years, and make them available to CARB upon request. Several minor amendments to the regulation were approved in 2010 and manufacturers were required to meet all provisions of the regulation by October 1, 2012.

The current regulation addresses air cleaning devices designed for rooms, whole houses, buildings, vehicles, and personal use (i.e. are carried or worn). Exempted devices included in-duct air cleaners that are an electrically connected component of a heating, air conditioning, and ventilation (HVAC) system and a subset of ozone-producing devices that are used for specific industrial purposes. Industrial-use devices, as defined in the regulation, are exempt as long as specified labeling and point-of-purchase requirements are met.

Since the regulation was adopted in 2007, nearly 2,500 air cleaning devices from more than 330 manufacturers have been certified by CARB. CARB also maintains an online list of certified devices, which is widely used by consumers around the United States, leading to additional public health benefits outside of the state. Although the air cleaner regulation has been successfully implemented for over a decade, the California market has diversified and expanded, with changes in air cleaner technology and increasing

sales driven by California-specific market drivers such as widespread smoke impacts from wildfires, public concern about health effects from air pollution, and the use of air cleaners to address cannabis-related (marijuana) odors. Amendments were needed to address market changes as well as to make corrections, updates, and other small changes.

Objectives and Benefits of the Proposed Regulatory Action:

Objectives: The proposed amendments strengthen the regulation by requiring the certification of electronic in-duct air cleaning devices and modifying industrial use exemptions. The proposal also streamlines the certification process by reducing the testing required to certify certain devices and eliminating the requirement for manufacturers of certified devices to complete the notification requirement in section 94807. The amendments also clarify requirements manufacturers need to meet prior to certification and to maintain certification of their device(s). CARB also includes updated versions of the approved test standards and incorporated additional test standards for dual-function devices and electronic in-duct devices.

Benefits: Eliminating the exemption from the existing regulation for in-duct air cleaners and requiring their ozone testing and certification reduced the potential for exposure to harmful ozone to the California public. A *TechSci* Research market report commissioned by CARB stated that 103,200 electronic in-duct air cleaners were purchased by Californians in 2017, with a projected 30% increase to 146,620 by 2023. Electronic air cleaners are capable of producing ozone so requiring the certification of in-duct air cleaners meets the legislative requirement in AB 2276 to protect public health by restricting ozone emissions from indoor air cleaning devices.

The California Legislature found, as discussed in Section 1 Article 8 of the enabling legislation, that exposure to ozone results in significant numbers of hospitalizations due to respiratory and cardiac illnesses and significant numbers of premature deaths. At the time the regulation was drafted, language was included in some of the exempted industrial uses that limited the application of ozone to times when people were not present in the space to be treated. Amendments to the regulation clarified that ozone-generating air cleaners used for exempted industrial applications can only be used when people are not present. These amendments intend to benefit workers in those industries where ozone is intentionally used, as well as bystanders and members of the public.

These clarifications may also result in environmental justice-related benefits. Several commercial sectors where uncertified ozone-producing devices are permitted for industrial uses typically employ people of color and are low-wage jobs—such as in agricultural processing, hotel maintenance, property remediation, and motor vehicle detailing. For example, ozone-producing air cleaners are used for an industrial purpose in fruit and vegetable sorting and packing facilities. Clarifying that industrial use exemptions apply if the ozone-generating air cleaners are used when people are not present could lead to health benefits for workers in this sector, who are disproportionately low-income workers of color, working in the fruit and vegetable

sorting and packing rooms. Similar benefits could be derived for other low-income workers in the hotel, remediation services, and vehicle detailing and reconditioning employment sectors.

Description of Regulatory Action:

On October 22, 2019, CARB released the Notice of Public Hearing (45-Day Notice) and Staff Report: Initial Statement of Reasons for Rulemaking (Staff Report), titled "Public Hearing to Consider the Proposed Amendments to the Regulation for Limiting Ozone Emissions from Indoor Air Cleaning Devices," for public review. The Staff Report contains a description of the rationale for the proposed amendments. On October 22, 2019, all references relied upon and identified in the Staff Report were made available to the public. CARB received one written comment during the 45-Day Notice comment period.

On December 12, 2019, CARB conducted a public hearing. CARB heard public testimony from two individuals/organizations. No written comments were presented by any individuals/organizations during the hearing. At the conclusion of the hearing, the Board approved Resolution 19-33 for adoption of the proposed amendments to CARB's air cleaner regulations.

In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments after making any appropriate conforming modifications, as well as any additional supporting documents and information, available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Subsequent to the hearing, CARB released a Notice of Public Availability of Modified Text (15-Day Notice) on January 13, 2020. The text of the proposed regulatory modifications was posted on CARB's website at https://ww2.arb.ca.gov/rulemaking/2019/aircleaner2019, accessible to all stakeholders and interested parties. The 15-day comment period commenced on January 13, 2020, and closed on January 28, 2020. During the 15-day comment period, CARB received written comments from two individuals/organizations.

CARB released a Second Notice of Public Availability of Modified Text and Availability of an Additional Document and Information (Second 15-Day Notice) on March 2, 2020. The text of the proposed regulatory modifications was posted on CARB's website at https://ww2.arb.ca.gov/rulemaking/2019/aircleaner2019, accessible to all stakeholders and interested parties. The second 15-day comment period commenced on March 2, 2020, and closed on March 17, 2020. During the Second 15-Day Notice comment period, no comment letters were submitted. Staff subsequently prepared written responses to the written comments received during the 45-Day and 15-Day comment

periods, as set forth in the Final Statement of Reasons. The Executive Officer adopted the regulatory amendments after addressing all appropriate modifications.

Summary of 15-Day Notice Modifications:

The substantive 15-Day Notice modifications included clarification of the definition of UVGI lamp(s) to include light emitted from a UV lamp that only emits wavelengths greater than 240 nanometers and no measurable ozone. The definition was expanded to address manufacturer's concerns by being more inclusive. It was clarified that portable air cleaners using only UVGI lamps must indicate the wavelength(s) of the UV lamp(s) used, the lamp manufacturer, and the lamp model number.

The definition of an in-duct air cleaner was also clarified by removing the following language: "including, but not necessarily limited to, buildings, vehicle cabins, and boat cabins." That language had created confusion because these are the same locations where portable air cleaners are commonly used. The test method that was previously incorporated for assessing ozone emissions from in-duct air cleaners, CSA C22.2 no. 187-15, was updated to reflect the most current version, CSA C22.2 no.187-20.

CARB also clarified that in-duct air cleaners *used in vehicles* are subject to the amended regulation upon its effective date (rather than 24 months after the effective date, as applies to other in-duct air cleaners). In-duct devices used in vehicles have already been subjected to the certification requirement under the current regulation and providing manufacturers of these devices a 24-month period following the effective dates of the amendments before they must obtain certification would be inconsistent with the implementation of the current regulation.

Clarifying language was also added to specify that portable air cleaners manufactured after the12 months-period following the effective date of the amendments must comply with new labeling and safety mark requirements. This addition was requested by a manufacturers' trade association and is intended to provide a sell-through period for portable air cleaners subject to new requirements.

In addition to the modifications described above, additional modifications correcting typographical or grammatical errors, punctuation and spelling may have been made throughout the proposed changes. Modifications may also include changes in numbering or formatting, or other non-substantive revisions made to improve clarity. These changes are non-substantive.

Comparable Federal Regulations:

There is no federal regulation that limits ozone emissions from indoor air cleaning devices, as defined in the air cleaner regulation. There is a federal regulation on allowable levels of ozone emitted from medical devices, which is 0.050 parts per million (ppm).[1] Indoor air cleaning devices are intended to remove pollutants from the air, and, in most cases, do not meet the definition of a medical device.

An Evaluation of Inconsistency or Incompatibility with Existing State Regulations (Gov. Code, § 11346.5, subd. (a)(3)(D)):

During the process of developing the proposed regulatory action, CARB conducted a search of any similar regulations on this topic and concluded these regulations are neither inconsistent nor incompatible with existing state regulations.

[1] U.S. Food & Drug Administration. Code of Federal Regulations Title 21. Special Requirements for Specific Devices. Accessed at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=801.415