

Draft Air Cleaner Regulation (AB 2276, Pavley, 2006)

California Air Resources Board Public Workshop

March 29, 2007

**Sierra Hearing Room, 2nd Floor
Cal/EPA Building
1001 I Street, Sacramento, CA**



Outline

- **AB 2276 requirements**
- **Applicability**
- **Regulation standards**
- **Exemptions**
- **Certification requirements**
- **Test method**
- **Labeling requirements**
- **Questions and comments**



AB 2276 Provisions

Regulation must include:

- Medical and non-medical devices used in occupied spaces
- Ozone emission concentration standard; equivalent to federal limit (0.050 ppmv)
- Test procedures: must consider existing test methods (ANSI, UL)
- Certification procedures
- Package labeling requirements specified

AB 2276 Provisions (contd.)

Regulation may include:

- Ban on sale of devices that exceed emission concentration limit
- Exemption for air cleaners that emit *de minimis* levels of ozone
- Any other element deemed necessary to protect public health

Proposed Regulation Overview

- **Devices for sale in CA must meet 0.050 ppmv ozone emission standard using 2007 Section 37 Interpretation of UL Std. 867**
- **ARB Certification required**
- **Electrical safety using UL Std. 867 or 507**
- **Testing performed by a Nationally Recognized Testing Laboratory**
- **Devices, packaging and sales materials to be labeled**
- **Scheduled Board hearing date: Sept. 27, 2007**



Section 94800. Applicability

- Regulation applies to any person who manufactures, sells, supplies or offers for sale indoor air cleaning devices in the state of California for use in occupied spaces
- Covers air cleaners for room, home, personal, and in-vehicle use

Section 94801. Definitions

- **This regulation requires the accurate definition of a number of terms**
- **Please review the provided definitions**
- **We welcome comments on possible revisions to the proposed definitions**



Section 94802. Standard Summary

- All indoor air cleaning devices must:
 - Meet 0.050 ppmv ozone emission concentration limit
 - Be certified by ARB
- All indoor air cleaning devices and packaging must be labeled as specified
- Effective date September 30, 2008

Section 94803. Industrial Exemption

- **Devices used solely for industrial applications would be exempt**
- **Must be manufactured, advertised, and marketed for industrial use only, and obtained only through industrial suppliers**
- **Must be labeled: “Solely for industrial use” or “Not for residential use”**

Section 94803. Commercial Exemption

- **Devices used solely for commercial application in unoccupied spaces would be exempt**
- **Must be manufactured, advertised, and marketed for commercial use only**
- **Must be labeled: “Solely for commercial use in unoccupied spaces”, or alternatively “Not for residential use” and “Not for use in occupied spaces”**

Section 94803. In-Duct Exemption

- Indoor air cleaning devices designed, marketed and used as a physically integrated component of an HVAC system are exempt
- May be regulated in the future if exposure data indicates potential risk to public health



Section 94804. Certification

- **Manufacturers are required to submit application for certification prior to sale of the device within California**
- **Applications must include:**
 - **Device and manufacturer information**
 - **Documentation of ANSI / UL 867 or 507 compliance**
 - **Documentation of 2007 UL Section 37 results**
- **Applications will be processed following guidelines of 17 CCR § 60030: 30 day completeness review, + 90 day certification**

Why ANSI / UL Standard 867?

- Ozone emissions are a function of the electrical and physical design
- Needed to assure that changes made in design to meet California air cleaner ozone standard do not cause a fire safety hazard

Certification Application: General

- Applicant contact information
- Manufacturer contact information
- Device information:
 - Brand name, model name, model number
 - Principles and schematics of operation
 - Recommended operating conditions
 - Maintenance requirements
 - Owners manual and available marketing materials

Certification Application: Test Results

- Test facility name, with current Nationally Recognized Testing Laboratory accreditation
- Ozone emission concentration results per 2007 Interpretation of UL Section 37
- Documentation of any test failures
- Chain of custody for test devices
- Test chamber performance characteristics
- QA/QC data
- Notification of compliance with electrical safety provisions (UL 867 or UL 507 as appropriate)



Certification: Mechanical Exemption

- “Mechanical filtration only” devices are exempt from Section 37 ozone testing due to known *de minimis* production of ozone
- “Mechanical filtration only” devices remove suspended pollutants from air using only filter media
- Electrical safety determined using UL Std. 507
- Devices qualifying for *de minimis* exemption must still meet labeling requirements

Ongoing Compliance Required

- **Notification must be provided to ARB if the device fails subsequent compliance testing with any portion of ANSI / UL Standard 867**
- **Certification may be revoked if the device is found noncompliant in the future**

Section 94805. Test Method

- **Compliance determined using ANSI / UL Standard 867**
- **Ozone emissions measured following the 2007 Interpretation of Section 37 of UL 867**
- **Test results will only be accepted from Nationally Recognized Testing Laboratories maintaining current accreditation for UL Standard 867 and the 2007 Interpretation of Section 37**

2007 UL Interpretation of Section 37

- Two units of each model to be submitted
- Ozone emissions measured for 24 hours at 2” from exhaust face in test chamber; 0 – 0.35 ach
- Ozone emission concentration shall not exceed 0.050 ppmv
- If <0.030 ppmv ozone, then second unit does not need to be tested
- Chamber half-life of 16 ± 1 min for ozone



2007 UL Interpretation of Section 37

- **Background measurements not to exceed 0.005 ppmv**
 - **Pre-test: taken immediately before start of test**
 - **Post-test: 15 minutes after chamber has been flushed and new steady-state concentration established**
 - **Background measurements are averaged and subtracted from emission measurements to determine maximum emission concentration**
- **Devices tested under full range of operational settings, with filters installed/removed, and sensor devices enabled/disabled**

Section 94806. Certification Marks

- **Must display a label (certification mark) on product packaging prior to sale in California**
- **Packaging mark requirements:**
 - **Non-medical devices: “This air cleaner complies with the federal ozone emission limits. ARB Certified.”**
 - **Capital letters must be at least 4 mm, and small case at least 3 mm. Font must be easily readable.**
 - **Medical devices: labeled in compliance with federal law, including Sec. 801.415 of Title 21 of Code of Federal Regulations.**
- **Must bear mark for ANSI/UL 867 (or 507 for mechanical only) certification on the device**



Section 94806. Advertisement Labeling

- Certified devices must display the appropriate label on all Internet web pages, mail order catalogs and related sales materials.
- Non-compliant devices for residential or commercial use must display the advisory warning: “Device does not meet California requirements and cannot be shipped to California addresses” on all Internet web pages, catalog pages and related materials where the device is advertised or displayed for sale.

Contacts

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- **Written comments**

- **Due April 20, 2007**

- **Submit to aircleaners@listerv.arb.ca.gov**

- **For further information:**

- <http://www.arb.ca.gov/research/indoor/aircleaners/aircleaners.htm>

- <http://www.arb.ca.gov/research/indoor/ozone.htm>

Public Input

- Questions first, then comments
- Use microphone and identify yourself
- Webcast participants:
 - Email questions / comments to workshop:
sierrarm@calepa.ca.gov
- Written Comments (all):
 - By April 20, 2007
 - Send to: aircleaners@listserv.arb.ca.gov