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California Consumers for Freedom of Choice July 16, 2008 Written Comments on Proposed Modifications to the California Air Resources Board on Adoption of a Regulation to Limit Ozone Emissions from Indoor Air Cleaning Devices

Pursuant to published notice describing the changes proposed to staff's original proposal, including revisions approved by the Board at its September 27, 2007 hearing and several minor revisions identified by staff as necessary to assure the clarity and accuracy of the proposed regulations, the California Consumers for Freedom of Choice (CCFC) submits these comments relating to the above-described modifications to the text of the regulations and relating to the Four (4) Appendices to that notice for consideration by the Executive Officer.

CCFC repeats its objections raised in their September 24, 2007 comments and incorporates them by reference here. CCFC submits that ARB staff has not adequately responded to objections raised, and on that basis the ARB Regulation may violate the Administrative Procedures Act criteria for review.

Further, the additional materials including Appendices provided by staff raise similar objections, and expose even more clearly the serious flaws in the proposed testing procedures that CCFC submits constitute separate grounds for violations of the Administrative Procedures Act.

1. Questionable Role of UL in Public Rulemaking.

At the outset, CCFC submits that the entire role of UL in these proceedings has been confusing and suspect. Staff's role here, too, also raises concerns. After the initial round of comments and a workshop appearance by UL representatives, CCFC and perhaps other stakeholders who were participating or at least monitoring staff proceedings, were under the impression that all UL proceedings, including both the testimonial and documentation records related to those proceedings would be part of these rulemaking proceedings. In this way, CCFC believed that all stakeholders (including all user groups, consumers and manufacturers) in addition to staff could provide ongoing comments, raise

objections, and participate in such a way to facilitate the development of an appropriate testing procedure in line with the mandate of AB 2276 that directed in part:

> Sec. 41986. (a) On or before December 31, 2008, the state board shall develop and adopt regulations, consistent with federal law, to protect the public health from ozone emitted by indoor cleaning devices, including both medical and nonmedical devices, used in occupied spaces.
>
> (b) The regulations shall include all of the following elements:
>
> (1) An emission concentration standard for ozone emissions that is equivalent to the federal ozone emissions limit for air cleaning devices.
>
> (2) *Testing procedures for manufacturers to utilize to determine ozone emissions from devices. In developing the procedures, the state board shall consider existing and proposed testing methods, including, but not limited to, those developed by the American National Standards Institute and Underwriters Laboratory*. (emphasis supplied)

Based on the latest submission of UL related documents for comments here by staff, the lack of any UL record of reviewing prior stakeholder comments and objections over testing procedures, no posting of the complete UL 867 Standard references and revision deliberation documents for stakeholder access and review, and the results of our internal Internet searches for similar documentation, we are alarmed by the relative secrecy and confidentiality of these UL proceedings. Further, we are alarmed that apparently only staff has been involved from the beginning in these ongoing UL proceedings to the exclusion of other participants in these rulemaking proceedings. It thus appears that staff may have acted as the sole "gate keeper" from the AB 2276 proceedings in determining what if any stakeholder comments and objections on proposed testing were formally submitted to the UL process. We submit that conducting a private rulemaking on what is "the most critical component" of the regulations with a single stakeholder (UL is not only a stakeholder, but is also a testing laboratory and a primary standard setting organization) may in and of itself amount to a violation of the Administrative Procedures Act.

Based on our own research and investigation, we submit that the parallel UL proceeding did not afford all stakeholders an adequate opportunity to participate in the development of a testing procedure.

We discovered a 1999 article by a Jack B. Halen, then a professor at the University of Washington, describing in summary fashion the workings of UL in developing regulation standards, in particular here a UL2117 Indoor Air Quality standard by a participating workgroup (http://www.ul.com/eph/iaq/letterto.htm). The article provided some clarity on the UL process, and gave us insight on the UL 867 Standard development and revision processes. Of interest to CCFC is that included in the listed workgroup as participants were: California Air Resources Board, American Lung Association, and select manufacturers. We could not find any disclosure from our UL research on the participants involved in either prior and current UL 867 Standard developments and

revisions; nor could we even find publicly available copies of the records of such proceedings, although copies of the completed standards were available for sale for hundreds of dollars.

Given the Legislative mandate to develop appropriate regulations through an appropriate rulemaking proceeding, it remains unclear why staff (a) did not fully disclose the workings of this totally separate and parallel proceeding, (b) did not fully disclose how stakeholder comments and objections were being processed through this proceeding if at all, and (c) did not create an opportunity for all stakeholders to have a fully informed participation through the AB 2276 proceedings.

2. According to UL, UL 867 Standard Restricted to Limited Class of Air Cleaners, and Not Designed for All Indoor Air Cleaning Devices Proposed by Staff.

Based on our own research and investigation, we submit that UL documentation on UL 867 including Section 37 testing, establish that staff reliance on UL 867 is irreversibly flawed in its application to this proposed Regulation, as UL 867 was never designed to cover all representative indoor cleaning devices and functionalities. We located and obtained during our Internet search a copy of the Scope Section of the UL 867 Standard for Electrostatic Air Cleaners that we believe is representative of the different versions and revisions of UL 867 since it was originally developed in the late 1970's and 1980; and we submit is most instructive on the application of Section 37 testing procedures to air cleaning devices covered by the current UL 867 Standard:

Electrostatic Air Cleaners - UL 867

1 Scope

1.1 These requirements cover electrostatic air cleaners rated at 600 volts or less, intended to remove dust and other particles from the air and intended for use in accordance with the National Electrical Code, ANSI/NFPA 70.

1.2 These requirements do not cover electrostatic air cleaners for use in hazardous locations or to clean atmospheres defined as hazardous by the National Electrical Code, ANSI/NFPA 70.

1.3 These requirements do not cover air cleaners intended to remove particles other than dust and other particles normally found in heating and ventilating systems.

1.4 Requirements for the installation of duct-type electrostatic air cleaners are included in the Standards of the National Fire Protection Association for Installation of Air Conditioning and Ventilating Systems, NFPA 90A; and for Installation of Warm Air Heating and Air Conditioning Systems, NFPA 90B.

1.5 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and that involves a risk of fire or of electric shock or injury to persons shall be evaluated using appropriate additional component and end-product requirements

> to maintain the level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard does not comply with this standard. Revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard. (emphasis supplied)

We submit that this UL provision substantiates what has been suggested by CCFC and other stakeholders throughout these proceedings, that the Scope of UL 867 is narrower than has been represented by staff, and is not entirely suited as the single testing procedure for manufacturers to utilize to determine ozone emissions from air cleaner devices.

As this provision makes clear, the coverage of UL 867:

- Is limited to electrostatic air cleaners intended to remove dust and other particles from the air,
- It does not cover electrostatic air cleaners for use in hazardous locations, and
- It does not cover air cleaners intended to remove particles other than dust and other particles normally found in heating and ventilating systems.

Therefore, it should be similarly clear that the testing procedures designed in Section 37 of UL 867 only relate to simulating the indoor environment for testing purposes for electrostatic air cleaners intended to remove just dust and other particles from the air. According to UL information, the ozone testing in Section 37 was designed to ensure that non-functional inadvertent or by-product ozone emissions did not produce a safety issue involving excessive ozone build-up when these products were placed per their user manuals next to a child sleeping or playing. Using a 2 inch testing location for this specific type of air cleaner technology and using a sterile environment arguably made sense here based on manufacturers' representations of no intent to generate or emit functional ozone as part of the air cleaning process. The Appendix IV CRDs provide additional support that the testing procedures under Section 37 have not been changed to cover other types of air cleaner technologies or products intended to remove other than just dust or particles.

For example, the CRDs still refer to the air tightness of a test chamber, as opposed to simulating an environment which recognizes the reactive nature of low level ozone emissions to address other than dust and particles; continuing the 2 inch sampling probe location to cover a "worst case" scenario, as opposed to a greater distance away for those products to be elevated or mounted away from occupants according to their user manuals; and simulating the air flow environment of the test chamber, but still not addressing the need to simulate the humidity and representative sampling or range of non-dust and non-particle contaminants.

3. Parallel UL Revision Process Restricted and Not Broadened to Include Functional Ozone Testing Issues and Modifications to Testing Procedures.

As noted above, neither the current or proposed UL 867 Standard or Revision Process was expanded or changed to address any types of air cleaner products other than electrostatic air cleaners intended to remove dust and other particles normally found in heating and ventilating systems from the air. This being the case, and absent other UL documents forthcoming to clarify this point that CCFC and perhaps other stakeholders were not privy to receive in the past, air cleaners that provide non-electrostatic air cleaner functions or processes, and air cleaners that provide for other than the removal of dust and other particles from the air, are not covered by the staff proposed testing procedures. This latter group of non-dust and non-particles removal functions would appear to include many of the functions listed in paragraph 14 of § 94801 Definitions:

> **§ 94801. Definitions.**
> (14) "Indoor air cleaning device" means an energy-using product whose stated function is to reduce the concentration of airborne pollutants, including but not limited to allergens, microbes (e.g., bacteria, fungi, viruses, and other microorganisms), dusts, particles, smoke, fumes, gases or vapors, and odorous chemicals, from the air inside an enclosed space. Such devices include, but are not necessarily limited to, portable devices of any size intended for cleaning the air nearest a person, in a room of any size, in a whole house or building, or in a motor vehicle; and stand-alone devices designed to be attached to a wall, ceiling, post, or other indoor surface. (emphasis supplied)

It is no wonder why CCFC and perhaps other stakeholder comments and objections to UL 867 were not addressed by UL as part of their revision process, assuming they were even transmitted to UL, since neither the then current UL 867, nor the standard revision process for UL 867 was intended to cover anything beyond the original scope of UL867. In fact, the revision process purpose was solely to clarify and improve the repeatability of the current testing requirements in Section 37. Any CCFC or other stakeholder comments and objections that did not relate specifically to the testing procedure designed exclusively for electrostatic precipitator air cleaners intended to remove just dust and particles from the air were likely considered as irrelevant. And as CCFC and others have submitted, the Section 37 testing is designed solely around measuring the inadvertent or by-product emission of ozone that was never intended to be part of the air cleaner functionality in addressing non-dust or non-particulate air quality contamination in the indoor air.

Based on our latest understanding of the UL process, a proposal for a new standard covering testing procedures related to the safe emission of "functional ozone" as part of an air cleaning device, as opposed to inadvertent or by-product emission of "non-functional" ozone should be submitted for UL consideration.

Again, the specific guidance provided by the Legislative here was "In developing the procedures, the state board shall consider existing and proposed testing methods, including, but not limited to, those developed by the American National Standards Institute and Underwriters Laboratory." It did not mandate staff to apply "existing" or "proposed" testing procedures, but only to "consider" them. Perhaps had staff fully disclosed the limitations recognized by UL in using UL 867 beyond the current scope, staff could have worked with all stakeholders in developing a new UL Standard proposal request, which in light of our current understanding of UL, CCFC is more than willing to participate in.

To the extent that the Board remains confused over UL's position with respect to the inherent limitations of the UL 867 Standard and testing issues proposed by staff here for all air cleaner devices and all the functions described in the paragraph 14 of § 94801 Definitions, CCFC would be amenable to convening an appropriate legal process whereby we could compel the production of documentation and the taking of depositions from UL to further substantiate our position here, to the extent this information has not been previously provided as part of these proceedings.

Based on the above, CCFC submits that staff's prior reliance on the application of UL 867 testing procedures to "all air cleaner devices" including those with functions beyond just removal of dust and other particles normally found in heating and ventilating systems from the air in press releases, workshops, letters or other communications with the public, Board members and members of the Legislature, was flawed or misplaced. Additionally, CCFC submits that staff's reliance in 2005 in developing their own test chamber and testing procedures on air cleaners based on an application of UL 867-type testing procedures and their subsequent reports, public statements and other communications was similarly flawed or misplaced.

Accordingly, CCFC submits that Board adoption of staff's current UL 867 based testing proposal would likely violate the Administrative Procedures Act.

4. Alternatives to Mandatory Compliance with UL 867 Standard.

As discussed above, CCFC submits that sole reliance on the UL 867 Standard for testing proposed by staff would not only violate the Administrative Procedures Act, be contrary to the intent of AB 2276, but it would effectively foreclose the manufacturing for resale in California of non-electrostatic air cleaners or similar types of air cleaners intended to remove more than just dust and other particles from the air. From the CCFC consumer perspective, this would create an untenable situation of restricted future air cleaner options for consumers leaving them with product choices grounded in 1980's air cleaner technology, as opposed to 2008 and beyond cutting edge technologies; this would result in a forced revocation of outstanding consumer product manufacturer warranties covering repair, maintenance and replacement situations related to existing air cleaners that will not meet the proposed UL 867 Standard once implemented and cannot be reshipped back

into the State; this would act as a disincentive for manufacturers to offer the broadest array of residential, business and hospital air cleaner options to meet individual customer needs for air quality protection in both occupied and non-occupied space locations in safe and responsible ways; and this would likely create an Internet "black market" for new and resale air cleaner products that may not meet the UL 876 Standard, and affording consumers little if any enforceable product warranty protection.

While CCFC will defer to the Board how best to correct the current and past record here by staff with respect to the scope and application of UL 867 testing, we submit that there are still solutions to the testing procedures, some of which can be ready in time, including optional use of staff's proposed UL 867 testing. For example,

- Limit staff's proposed UL 867 testing to those devices intended for inclusion under the Standard Scope, and other products at the option of air cleaner manufacturers.
- Direct Staff and UL to work with all stakeholders in developing a new proposal to cover other air cleaners not intended to be covered by UL 867.
- Alternatively or until a new proposal is developed collaboratively and approved by UL, convene a workshop of all stakeholders to review reasonable alternative testing procedures that recognize the use of low levels of ozone as part of an overall air cleaning solution option for occupied spaces while being occupied, and higher levels not in excess of a reasonable level for non-occupied situations. If manufacturers can develop and design test chambers for testing their own products for various product compliance purposes, then why not solicit their expertise and assistance here to expedite this process?

In addition, CCFC proposes that the Board consider implementing the following alternatives on a reasonable "trial basis" with staff and interested stakeholders monitoring the experience here and providing status reports to the Board. This would also give the scientific/medical community the opportunity to conduct "actual" epidemiologic based studies and report back to the Board.

- Adopt warning and usage labels that advise on the use of low levels of ozone in occupied areas and higher levels only when not occupied.
- Adopt definitions of occupied and non-occupied based on actual physical presence, as opposed to branding any space capable of ever being occupied as occupied and prohibiting any ozone usage.
- Remove from the industrial use exemption definition paragraph 15 (F) (G) (H) and (I) and permit residential use of ozone under the same conditions (odor and smoke control, mold remediation, fire and smoke damage remediation, and odor control in a personal motor vehicle) where "no people are physically present" in order to avoid a regulatory created monopoly of these services to for-profit businesses and a pay per visit/treatment basis that would place

financially strapped consumers at risk from addressing these same air quality issues in their own home in a safe and responsible way.
- Exempt from transportation into California any product or parts covered under product warranties in existence (repair, maintenance and replacement) at the time of implementation of any Regulation until expiration of the warranty.

Again, CCFC believes that these proposed alternatives are more in line with the intent of AB 2276, and in the best interest of all responsible California consumers.

5. Additional Comments to Notice and Appendixes

Notice

- At page 3, Summary of Rationale for the Proposed Modifications, relating to Section 94801 and adding subsection (a)(15)(I) on odor control in the motor vehicle reconditioning and detailing industry (provided no people are physically present) to the definition of industrial use, the rationale here as noted in earlier comments should support the same uses for consumers provided no people are physically present during the odor control process in their personal motor vehicles. Creating a regulatory monopoly here or for subsection (a)(15) (F) (G) and (H) services to for-profit businesses on a pay per visit/treatment basis would place financially strapped consumers at risk from addressing these same air quality issues in their own home in a safe and responsible way. We submit this is contrary to the intent of AB 2276, and in violation of the Administrative Procedures Act.
- At pages 5-7, Additions to the Rulemaking Record and Corrections, no copy of the complete ANSI/UL Standard 867 was posted to the ARB website for immediate access by stakeholders. Instead, copies were available for purchase for several hundred dollars plus on a subscription-type basis. Similarly, UL Standard 507 had an even higher cost. As CCFC has submitted earlier, not providing all stakeholders with timely access to applicable UL Standards or other materials that form a basis for staff development of the Regulation does not comply with the Administrative Procedures Act.
- Listed here and on the ARB website are references to all the materials comprising the record for OAL review, including all of the testimonials and letters of support provided to the Board at or prior to the September 27, 2007 Public Hearing. However, during Mr. Montoya's testimony, he proffered to staff and the Board a large box containing approximately 30,000 customer testimonials and letters of support for the CCFC positions, yet at no time prior to Board deliberations following the end of testimony, nor at the conclusion of the hearing or any time thereafter, did staff or the Board review these materials, nor arrange to receive them into the record of these proceedings, nor were they even officially acknowledged as being part of the record. The failure here affects the completeness of the record for OAL review.

Appendix 1

CCFC submits there are numerous factual flaws in Resolution 07-40, several of which have already been addressed above. While CCFC can provide staff with line by line detail references upon request, CCFC provides a summary below:

At page 1, Par. 3, exposure to "high levels of" ozone is a public health concern

At page 1, Par. 4, factual misstatements over characterization of any air cleaner that includes ozone as part of the air cleaning technologies, and failure to reference the difference between high levels of ozone in occupied spaces as opposed to safe levels of lower levels of ozone (for example within 0.05 ppm).

At page 1, Par. 5, factual misstatements over effectiveness of low levels of ozone for odor control and reduction of microorganisms, based on "peer reviewed studies" submitted as part of the record.

At page 3, Par. 8, factual misstatements over the relevancy of UL 867 Standard testing to other than electrostatic precipitators intended to remove just dust and particles from the air.

At page 4, Pars. 4 and 5, factual misstatements over adverse impact as there is no reference to the impact on manufacturers of purifiers that might otherwise meet the intent of AB 2276 but cannot overcome the testing flaws in the proposed UL 867, resulting in significant economic impact (for example, Sharper Image bankruptcy) and manufacturers being forced to abandon their product line in favor of 1980's based electrostatic precipitators that produce no ozone at all as part of the cleaning solution options. The harm to consumers is a denial of the broadest array of safe and responsible cleaning solution options, including ozone based options for occupied space use, and at affordable prices.

At page 5, Pars. 2, 3, 4, 5, 8 and 9, factual misstatements over health risk to low level exposure of ozone and no mention of absence of any actual epidemiological studies to support health risk statements; elimination of responsible use of products using low level ozone in occupied space in contrast to higher levels of ozone when non-occupied or no one is physically present; potential impacts are misstated; and misstatements over the lack of reasonable and more effective alternatives for regulating air cleaners that intentionally generate controllable and scalable levels of "optional ozone" as part of their cleaning solution.

Attachment B

At page 1, CCFC disagrees and opposes staffs modification to Sec. 94802 striking "for use or intended for use in occupied spaces". As noted above and in prior CCFC comments, staff's definition of "occupied space" to include any space ever capable of being occupied, and excluding any reasonable definition of "non-occupied or unoccupied space" is contrary to the intent of AB 2276 and may violate the Administrative Procedures Act. At page 2, CCFC submits that the changes affecting Sec. 94805 can only apply to those electrostatic precipitators or similar products covered under Section 1 Scope of UL Standard 867.

Appendix 2

See CCFC comments above and prior comments relating to the Definitions Par (14), Industrial use/application Par (15), "Occupied space" definition Par (25), Sec. 94803 on the Industrial use exemption, and Sec. 94805 on the flawed nature of the Test Method.

Appendix 3

See CCFC comments above and prior comments relating to the inherent limitation of UL Standard 867, Sec. 37 Ozone Test.

Appendix 4

See CCFC comments above and prior comments relating to the inherent limitation of UL Standard 867, Sec. 37 Ozone Test.

Conclusion

The testing flaws together with the other factual errors in the Resolution, Appendixes and incomplete record render the staff proposed Regulation unacceptable in its present form and not in compliance with the criteria for review set out in the Administrative Procedures Act.

Based on the above, CCFC believes that it is in the best interest of the Board to temporarily delay the adoption of the staff submitted Regulation, provide corrective guidance and instructions to staff, implement the alternative proposals submitted by CCFC, and direct staff in collaboration with all stakeholders to develop alternative solutions to the problems pointed out by CCFC and to report back to the Board within 45 days with a progress status.

In this way, CCFC believes we can ensure that all California consumers will continue to have safe and responsible state-of-the-art air cleaning solutions that meet their individualized needs and those of their families today and in the future; and solutions that address all air quality related needs, not just limited to dust and particles, and including: odor; smoke; fire and smoke related challenges and damages; mold; microbiological

contaminants including bacteria (for example, pneumonia, Staph, MRSA antibiotic resistant Staph), germs, Healthcare Associated Infections, pandemic and other contagious viruses, flu, fungi and other infectious microorganisms; gases; vapors; fumes; and odorous chemicals.

Sincerely,

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