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## Statement of UL2 Rating

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Andreae Filters have not been tested by Underwriters Laboratories. The requirement for a Class 2 (combustible dusts) filter in 1910.107(b)(5)(vi) has been a source of contention for over a decade. Underwriters Laboratories (UL), a Nationally Recognized Testing Laboratory (NRTL), states that a Class 2 certification only applies to *clean* filters. A certified rating cannot be applied to a filter in use because the combustibility of particulate accumulation in the filter has not been measured in the test standard. As such, the argument has been posed that the intention of the filter is to collect particulates and therefore a Class 2 filter *in use* does not provide equal or greater protection to the employee.

**29CFR1910.107: Spray Finishing Using Flammable and Combustible Materials**

1910.107(b)(5)(vi) Clean filters or filter rolls shall be noncombustible or of a type having a combustibility not in excess of Class 2 filters as listed by Underwriter’s Laboratory. Filters and filter rolls shall not be alternately used for different types of coating materials, where the combination of materials may be conducive to spontaneous ignition [see also (g)(6)].

Underwriters Laboratories UL900

**Scope 1.1** of the Test Standards for Air Filter Units (UL900) determines combustibility and amount of smoke generated for air filter units of both washable and throwaway types used for removal of dust and other airborne particles from air circulated mechanically in equipment and systems installed in accordance with NFPA 90A. The UL 900 test simulates a duct fire with flame exposure and spot flame test impinging on the filter. For classification, strict limits are placed on the amount of smoke and flames that may pass thru the filter.

**Scope 1.2 of UL900:** since the combustibility and smoke generation of an air filter unit, after a period of service, depends upon the nature and quantity of the material collected by the filter, the test requirements of this standard, for classification purposes, apply only to air filter units in a clean condition. Consequently, when filters are susceptible to the accumulation of combustible deposits, it is intended that maintenance and inspection practices should be followed as proposed in NFPA 90A.

<http://ulstandardsinonet.ul.com/scopes>

In 2003, OSHA stopped requiring the NRTL to include the UL900 in their scope of recognition. ‘... some of the test standards that OSHA currently includes in the scope of recognition of these NRTLs are no longer “appropriate test standards” primarily because they have been withdrawn or replaced.’ To date, the NRTL has withdrawn UL900 and has not recommended a replacement. This does not mean that the test is not available, but rather that NRTLs are not required to perform the test.

(OSHA: Composite List of Test Standards No Longer Recognized, FR Notice: 68:579-583, 1/6/03;  
<http://www.osha.gov/dts/otpca/nrtl/stdsderecgn.html>)

Mohamed El-Zoghbi, Director of Enforcement Program for the Office of General Enforcement, OSHA Correspondence Control Unit in Washington, D.C. stated, “We focus on general industry to ensure employee protection. Refer to the 1996 Letter of Interpretation that states, ‘If someone follows a more current consensus standard that provides employee protection, OSHA will not cite them.’ However, each Compliance Officer will make that call on a case-by-case basis.”

**OSHA's De Minimis policy, OSHA Instruction 2.103, Sept. 26, 1994, Field Instruction Reference Manual, Chapter III-19 and 20.**

You inquired as to whether compliance with NFPA 33 offered "equal or greater employee protection" and if a company would be cited if they comply with NFPA 33. To address your first concern, OSHA's policy is that compliance with NFPA 33 (1995 ed.) offers at least "equal" employee protection in areas specifically addressed in that document. As for your second concern, we are unable to give this type of generic interpretation of compliance. A compliance officer will deal with such compliance issues on a case-by-case basis to completely evaluate the specific and unique circumstances in order to verify whether employees are being provided equal or greater protection. An employer who complies with a consensus standard, such as NFPA 33, rather than an OSHA standard in effect at the time of inspection and clearly provides equal or greater employee protection will not be cited.

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=22163](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22163)

**The National Fire Protection Association amended their standards in 1995, dropping their requirement for non-combustible [or UL2 rated] filters.** Michael K. Haufe, P.E., Technical Director of the Distributions Products Division for Columbus Industries, Inc. inquired to OSHA as to whether 1910.107(b)(5)(vi) would be updated accordingly. John B. Miles, Jr., Director of the OSHA Directorate of Compliance Programs replied on March 15, 1996:

Dear Mr. Haufe:

Thank you for your letter of February 6 regarding spray finishing as covered under 29 CFR 1910.107. Your question related to the Occupational Safety and Health Administration's (OSHA) possible future updating of 1910.107(b)(5)(vi) and what the agency's interim enforcement policy will be until such an updated standard is promulgated.

OSHA does not have any immediate plans to change or amend 1910.107 to reflect the newly revised NFPA-33 standard for spray application using flammable or combustible materials. Until such an amendment to the OSHA standard is made, however an employer who complies with a consensus standard rather than a standard in effect at the time of inspection and clearly provides equal or greater employee protection will not be cited. (OSHA's De Minimis policy, OSHA Instruction 2.103, September 26, 1994, Field Inspection Reference Manual, Chapter III-19 and 20.

Furthermore, an employer choosing to comply with the NFPA 33 standard must comply with all relevant sections of Chapter 3, Sections 3-6 of this standard specifically allow for the use of dry overspray collection filters.

Thank you for your interest in safety and health. If we can be of any further assistance, please call Margo Daniel, of my staff, at (202) 219-8041, Ext. 107.

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=22163](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22163)

In March, 2009 Andreae Team, Inc. also posed the question to several individuals. An OSHA Compliance Officer in Oklahoma City, Oklahoma stated that he disregards the filter media as long as the airflow gauge across the filter is present and filters are replaced when the airflow falls below 100<sup>7</sup>/min, with up and downstream fire extinguishers in place. A visiting OSHA Officer stated that when he inspects, it is acceptable if an area source chooses to follow the method versus the practice, as long as they follow all standards outlined in the method. Mohamed El-Zoghbi, quoted above, further stated that, "In terms of 1910.107(b)(5)(vi), changing a ruling is complicated. There are a lot of legalities involved. That's not to say this won't happen in the future. It just takes time. Meanwhile, the Field Operations Manual discusses how to deal with variations in the rulings (Directive Section, Ch. 4: Violations) and provides guidance to Compliance Officers [when making an inspection].

**Andreae Filters are compliant with NFPA 33. It is Andreae Team, Inc.'s stance that a clean filter is not representative of the intended use of the filter and therefore the UL2 rating is insufficient in determining equal or greater employee protection. Ultimately, the area source must decide whether or not to use a UL2 rated filter and if not, follow all of the recommended standards to ensure "equal or greater protection to the employee".**