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## Statement of Aerospace Compliance

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**Andreae Filters are compliant as pre-filters only** with 40CFR63 Subpart GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities). This subpart applies to facilities that are engaged in the manufacture or rework of commercial, civil or military aerospace vehicles or components and that are *major sources* of HAP, VOC and/or inorganic HAP emissions (>10 tons/yr).

Aerospace NESHAP states that all spray booths built after 1999 require a three stage filtration system. However, there has been interpretation stating that if the final stage is certified efficient using Test Method 319, then only one stage is possible as may be found in a HEPA filter. Scope and Application further states that pre-filters need not be tested but rather “also pass filtration requirements” when the final stage is tested and certified efficient.

### Scope and Application of Method 319, 1.3

For a paint arrestor system or subsystem which has been tested by this method, adding additional filtration devices to the system or subsystem shall be assumed to result in an efficiency of at least that of the original system without the requirement for additional testing. (For example, if the final stage of a three-stage paint arrestor system has been tested by itself, then the addition of the other two stages shall be assumed to maintain, as a minimum, the filtration efficiency provided by the final stage alone. Thus, in this example, if the final stage has been shown to meet the filtration requirements of Table 1 of 63.745 of subpart GG, then the final stage in combination with any additional paint arrestor stages also passes the filtration requirements.)

<http://envinfo.com/caain/498/regfn.html>

Andreae Filters are compliant with 40CFR63, subpart HHHHHH which states that all spray booth filter media used for the purposes of exhaust must be at least 98% efficient. Andreae Filters are tested using ASHRAE 52.1 as per the specific paint test parameters outlined in 40CFR63.11173(e)(2)(i).

### Title 40 Code of Federal Regulations

§63.11173 (e)(2)(i) Subpart HHHHHH-National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, General Compliance Requirements

All spray booths, preparation stations, and mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992" (incorporated by reference, see §63.14 of subpart A of this part). The test coating for measuring filter efficiency shall be a high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement.

**Andreae High Efficiency Filters** are 99.4% efficient with 5.3lbs/sf (25.87kg/m<sup>2</sup>) holding capacity. Two-stage filter: cardboard, accordion baffle with a polyester backing. Working principle: impaction through inertial separation in stage one, straining in stage two.