

*Revised Rate of Heat Release Test Method*

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The rate of heat release apparatus is a test method required by the Federal Aviation Administration to qualify large surface area aircraft interior materials such as ceilings, stow bins and sidewalls for use in commercial passenger aircraft. Descriptions of the apparatus, its use, calibration and the pass / fail criteria are contained in the Federal Register 14 CFR parts 25 and 121.

Multi-laboratory studies in which the same material was tested at different locations indicate reproducibility of test results can be improved. There are many factors that can contribute to poor agreement between test laboratories. This presentation describes a detailed revision of the test apparatus conducted by the International Aircraft Materials Fire Test Working Forum to better standardize components, procedures and calibration of equipment for this test method. Additional discussion will include research conducted using laser technology to monitor exhaust gas smoke emissions of materials while under test.