



U.S. Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: **ACTION:** Designated Engineering Representative
(DER) Approval of Flammability Data.

Date: March 31, 2005

From: Manager, Aircraft Engineering Division, AIR-100

Reply to: Hal Jensen
Attn. of: (202) 267-8807

To: All Aircraft Certification Offices and DERs With Flammability Authority

This memo is effective immediately.

This memo is to clarify when it is and when it is not appropriate to use an FAA Form 8110-3, *Statement of Compliance with the Federal Aviation Regulations*, to approve flammability testing used in the certification of aircraft interior compartments, cargo compartments, thermal/acoustic insulation, and wiring. FAA Form 8110-3 is to be used only when approving data associated with certification activity. FAA Form 8110-3 is not to be used to approve data associated with quality assurance or outside the scope of a specific certification activity.

It is a common practice for many manufacturers of materials used within the fuselage of an aircraft to employ persons who perform flammability testing for material certification commonly called "material certs". Material cert data has often been used inappropriately in the certification of aircraft interiors during interior refurbishment and alterations. Material specimens tested separately for material certs may not represent the final configuration of the material as installed. These test results may not be sufficient to make a complete finding of compliance to the certification requirements.

The FAA has delegated the witnessing of material flammability tests to determine compliance with certification requirements to certain DERs. A DER with this authority must know how the material or part will be installed on an end product and identify that use on the FAA Form 8110-3 or the approved test results report. FAA Form 8110-3 is the DER's only way to approve flammability test report technical data. The DER's appointment must permit them to find compliance to flammability requirements before completing an FAA Form 8110-3.

A DER cannot use FAA Form 8110-3 when testing material for quality assurance for either a manufacturer or a repair station (i.e. company or supplier "material certs"). Testing done for quality assurance may be documented in a test report, depending upon the quality assurance records requirements.

When testing is performed for a certification project or an alteration or repair, the DER will determine that the test plan is FAA (ACO or delegated DER)-approved and that the test report adequately addresses the applicable airworthiness standards for the intended use of the material. If the DER finds the test report acceptable, he/she may generate a FAA Form 8110-3 that references the approved test plan and approves the test results. For flammability testing, this technical data includes records of pre-conditioning of the test specimen.

In addition, Flammability DER's are reminded of the following requirements of Order 8110.37C:

- 1) Specific regulations must be cited on the Form 8110-3.
- 2) The aircraft make and model must be properly identified on the Form 8110-3.
- 3) The specific purpose of the approval must be clear in the "Purpose of data" section, including FAA project number.
- 4) Test plans must be approved by the ACO or by a DER in cases where the ACO has delegated this function to a DER
- 5) The DER is responsible for verifying that the necessary FAA conformity inspections have been accomplished prior to conducting a test.

Please take the necessary actions to ensure that DERs are operating per this guidance.

Original signed by Susan M Cabler for

Dave W. Hempe