U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Chief Counsel

800 Independence Ave., S.W.
Washington, D.C. 20591

FEB 12 2008

Mr. DeWayne Smith
Central Flying Service, Inc.
1501 Bond Street
Little Rock, AR 72202

Dear Mr. Smith,

This is in response to your November 26, 2007, request for an interpretation regarding who may conduct flammability testing of materials as provided for under 14 C.F.R. §§ 23.853 and 25.853; specifically, whether a part 145 certified repair station may receive a limited rating under 14 C.F.R. § 145.61(c)(1) to perform this function.

You assert that flammability testing constitutes a specialized service for which a repair station could receive a limited rating to perform. *See* 14 C.F.R. § 145.61(c). Limited ratings, however, may be issued only for the *maintenance or alteration* of a "particular type of airframe, powerplant, propeller, radio, instrument, or accessory," or if a repair station performs only "specialized maintenance requiring equipment and skills not ordinarily performed under other repair station ratings." 14 C.F.R. § 145.61. Further, pursuant to § 145.201, a certificated repair station may only "*perform maintenance, preventive maintenance, or alterations in accordance with part 43* on any article for which it is rated and within the limitations in its operations specifications." 14 C.F.R. § 145.201. At issue, therefore, is whether flammability testing constitutes "maintenance, preventive maintenance, or alterations" that must be performed in accordance with part 43. Based on the following analysis, we conclude that flammability testing is not "maintenance, preventive maintenance, or alteration," but rather, a finding of compliance with an applicable design standard to be made by the Administrator or an individual or organization designated by the Administrator in accordance with part 183.

Pursuant to 14 C.F.R. §1.1, maintenance is defined as the "inspection, overhaul, repair, preservation, and the replacement of parts" but does not include preventive maintenance. You assert that flammability testing could be part of the "inspection" process of maintenance. Flammability testing, however, is an airworthiness standard set forth in Part 23 and Part 25, not a maintenance function set forth in Part 43. *See* 14 C.F.R. §§ 23.853, 25.853, Appendix F (setting forth the "test criteria and procedures for *showing compliance* with §§ 23.853 and 25.853"); *see also* 14 C.F.R. § 23.601 ("The suitability of each questionable design detail and part having an important bearing on safety in operations, must be established by tests.").

The purpose of the flammability test is to ensure that the materials used as part of the design, maintenance, or alteration, are suitable and meet the airworthiness standards of Part 23 and Part 25. When data collected from the flammability test is approved by an

individual or organization designee, the agency's approval of the data is only a certification that the materials identified in the design meet the applicable regulatory requirements. A material may only be used in a major repair or alteration if has been certified that it meets the test requirements of § 23.853 or § 25.853. Thus, the agency's certification that a material is suitable for its purported use in a design, major repair, or alteration, is separate from a repair station's certification that an article, on which it has performed maintenance, is airworthy and may be returned to service. The repair station's certification applies only to the work that the repair station actually performs. *See* 14 C.F.R. §§ 145.213(b)(1) and (2). When a flammability test is conducted, the repair station is not performing any work on that material to return it to "at least its original or properly altered condition." 14 C.F.R. § 43.13 ("Each person maintaining or altering, or performing preventive maintenance shall do that work in such a manner and use materials of such a quality, that the condition of the aircraft, airframe, aircraft engine, propeller, or appliance worked on will be at least equal to its original or properly altered condition."). Rather, the flammability test merely determines whether the material conforms to the regulatory requirements of either § 23.853 or § 25.853 such that it may be used as part of a design, maintenance, or alteration. Accordingly, flammability testing is not considered maintenance that could be conducted in accordance with part 43, and authorizing a repair station to perform these tests under a limited rating pursuant to § 145.61(c) is not permissible.

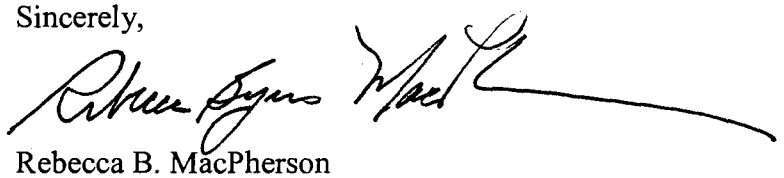
You also question who is authorized to conduct flammability testing. We note that although the appendices set forth the accepted test and procedures, the provisions do not state who is authorized to approve the collected data. Pursuant to 49 U.S.C. § 44702(d), the Administrator has designated this authority to qualified individuals and organizations. As representatives of the Administrator, these persons or organizations are required to perform in a manner consistent with the policies, guidelines and directives of the Administrator. When performing a delegated function, such as flammability testing, these designees are legally distinct from and act independent of the organizations that employ them. Because these representatives' authority to act comes from a statutory delegation and not a certificate, the Administrator may suspend or revoke the delegation at any time, with no right of appeal to the National Transportation Safety Board.

Currently, as noted in §307 of FAA Order 8100.8C (May 4, 2007), designated engineering representatives (DERs) are responsible for approving technical data like that collected from flammability testing. DERs, however, are not required to witness the entire test in order to approve the technical data. *See* Designated Engineering Representative Handbook, FAA Order 8110.37D, Ch. 4-4 (Aug. 10, 2006). Rather, upon authorization from and coordination with the Aircraft Certification Office (ACO), the DER must witness only those critical aspects of the test that are necessary to ensure that the data is valid. In some circumstances, therefore, a DER could train an individual on how to perform the flammability test properly and then approve the data collected by the individual. Once the DER issues FAA Form 8110-3 approving the data, that is his or her testament to the Administrator that he or she witnessed the critical aspects of the test, that the test was conducted in accordance with FAA standards, and that the data is the official test result that satisfies the test criteria for compliance. *See* FAA Order 8110.37D, Ch.4-4; Ch. 3-2 (noting that the only form permissible for approving such data is FAA Form 8110-3).

Although flammability test data is approved mainly by DERs, it is not necessarily so limited to DERs. Any organization with demonstrated competence, integrity, and expertise in aircraft certification functions would be eligible to apply for an Organization Designation Authorization (ODA), as provided for in subpart D of part 183, to perform supplemental type certification (STCs), or major repair, major alteration, and airworthiness (MRA) functions. Flammability testing may be conducted within the scope of both an STC ODA and an MRA ODA. *See* Organization Designation Authorization Procedures, FAA Order 8100.15 (Aug.18, 2006); *see also* 14 C.F.R. § 183.47; *cf.* 70 Fed. Reg. 59932 (Oct. 13, 2005) (describing the history of designees and establishing the ODA program). Thus, a repair station that was issued a limited rating under 14 C.F.R. §145.61(c) to perform flammability testing must apply for an STC or MRA ODA in order to continue to conduct flammability testing.

We appreciate your patience and trust that the above responds to your concerns. If you have any questions, please contact my staff at (202) 267-3073. This response was prepared by Anne Bechdolt, Attorney, reviewed by Gary Michel, Manager, Airworthiness, Advanced Aircraft and Commercial Space Law Branch of the Office of the Chief Counsel, and coordinated with the Aircraft Maintenance Division of Flight Standards Service and the Aircraft Engineering Division of Aircraft Certification Service.

Sincerely,



Rebecca B. MacPherson
Assistant Chief Counsel for Regulations, AGC-200