

Operational Evaluations and Approval

These special conditions outline requirements for OFCR compartment design approvals (*i.e.* type design changes and supplemental type certificates) administered by the FAA's Aircraft Certification Service. Prior to operational use of an OFCR compartment, the FAA's Flight Standards Service must evaluate and approve the "basic suitability" of the OFCR compartment for crew occupation. Additionally, if an operator wishes to utilize a flightcrew rest area as "sleeping quarters," the crew rest area must undergo an additional evaluation and approval (Reference §§ 121.485(a), 121.523(b) and 135.269(b)(5)). Compliance with these special conditions does not ensure that the requirements of part 121 or part 135 have been demonstrated.

In order to obtain an operational evaluation, the type design holder must contact the Aircraft Evaluation Group (AEG) in the Flight Standards Service and request a "basic suitability" evaluation or a "sleeping quarters" evaluation of their crew rest. The results of these evaluations must be documented in a 777 Flight Standardization Board (FSB) Report Appendix. Individual operators may then reference these standardized evaluations in discussions with their FAA Principal Operating Inspector (POI) as the basis for an operational approval, in lieu of an on-site operational evaluation.

Any changes to the approved OFCR compartment configuration that effect crewmember emergency egress or any other procedures affecting the safety of the occupying crewmembers and/or related training shall require a re-evaluation and approval. The applicant for a crew rest design change that affects egress, safety procedures, or training is responsible for notifying the FAA's AEG that a new crew rest evaluation is required.

Procedures must be developed to assure that a crewmember entering the OFCR through the vestibule to fight a fire will examine the vestibule and the lavatory areas for the source of the fire prior to entering the remaining areas of the crew rest compartment. These procedures are intended to assure that the source of the fire is not between the crewmember and the primary exit.

Type Certification Basis

Under the provisions of § 21.101, Amendment 21-69, effective September 16, 1991, Flight Structures Inc., must show that the Boeing Model 777-200, as changed, continues to meet the

applicable provisions of the regulations incorporated by reference in Type Certificate Data Sheet No. T00001SE or the applicable regulations in effect on the date of application for the change. Subsequent changes have been made to § 21.101 as part of Amendment 21-77, but those changes do not become effective until June 10, 2003. The regulations incorporated by reference in the type certificate are commonly referred to as the "original type certification basis." The regulations incorporated by reference in Type Certificate No. T00001SE for the Boeing Model 777-200 series airplanes include 14 CFR part 25, as amended by Amendments 25-1 through 25-82. The U.S. type certification bases for the Boeing Model 777-200 series airplanes is established in accordance with 14 CFR 21.17 and 21.29 and the type certification application date. The type certification basis is listed in Type Certificate Data Sheet No. T00001SE.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, 14 CFR part 25) do not contain adequate or appropriate safety standards for the Boeing Model 777-200 series airplanes because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, Boeing Model 777-200 series airplanes must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36.

Special conditions, as defined in § 11.19, are issued in accordance with § 11.38 and become part of the type certification basis in accordance with § 21.101(b)(2), Amendment 21-69, effective September 16, 1991.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of § 21.101(a)(1), Amendment 21-69, effective September 16, 1991.

Novel or Unusual Design Features

While the installation of a crew rest compartment is not a new concept for large transport category airplanes, each compartment design has unique features by virtue of its design, location, and use on the airplane. Previously, crew rest compartments have been evaluated that are installed within the main passenger

compartment area of the Boeing Model 777-200 and Model 777-300 series airplanes and the overhead area of the passenger compartment of the 777-200. Other crew rest compartments have been installed below the passenger cabin area, adjacent to the cargo compartment. Similar overhead crew rest compartments have also been installed on the Boeing Model 747 airplane. The interfaces of the modification are evaluated within the interior and assessed in accordance with the certification basis of the airplane. However, part 25 does not provide all the requirements for crew rest compartments within the overhead area of the passenger compartment. Further, these special conditions do not negate the need to address other applicable part 25 regulations.

Due to the novel or unusual features associated with the installation of this crew rest compartment, special conditions are considered necessary to provide a level of safety equal to that established by the airworthiness regulations incorporated by reference in the type certificate.

Prior Comment

During a previous publication of the substantially identical special conditions a comment was received after the comment period had closed. The commenter thought requiring placards prohibiting storage of "hazardous quantities of flammable fluids" was unnecessary and a duplication of International Air Transport Association (IATA) Dangerous Goods Regulations, specially, "Provisions for Dangerous Goods Carried by Passengers or Crew." The FAA concurs with the commenter that the placard requirement is similar to the IATA requirement, therefore, the requirement for the placard has been removed.

Discussion of Comments Received on Special Conditions No. 25-216-SC

Notice of final special conditions; request for comments, No. 25-216-SC, for the Boeing Model 777-200 series airplanes was published in the **Federal Register** on October 11, 2002 (67 FR 63250). Two commenters responded to the notice.

The first commenter requests that Special Condition No. 2 be revised to include the wording "if the open panel would impede evacuation from the main deck." This comment was not incorporated because the FAA finds that the current statement adequately states the objectives of the requirement.

This commenter also requests that Special Condition No. 8 be revised to