their design. Traditional panels are exempted.

2. The applicant may designate up to and including 1.5 square feet of non-traditional, non-metallic panel material per seat place that does not have to comply with No. 1. A triple-seat assembly may have a total of 4.5 square feet excluded on any portion of the assembly [e.g., outboard seat place, 1 sq. ft.; middle, 1 sq. ft.; and inboard, 2.5 sq. ft.]

3. Seats need not meet the test requirements of 14 CFR part 25, appendix F, parts IV and V, when installed in compartments that are not otherwise required to meet these requirements. Examples include:
   a. Airplanes with passenger capacities of 19 or less,
   b. Airplanes that do not have smoke-and-heat release in their certification basis, and do not need to comply with the requirements per 14 CFR 121.312,
   c. Airplanes exempted from smoke-and-heat-release requirements.

4. The applicability requirements fall into two categories: either new-seat certification program or previously certified. New-seat certification programs must meet the special conditions, previously certified are not required to.

Issued in Renton, Washington on December 28, 2009.

Ali Bahrami,
Manager, Transport Airplane Directorate, Aircraft Certification Service.

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 25
[Docket No. NM422; Special Conditions No. 25–398–SC]

Special Conditions: Airbus Model A318–112 Airplane (S/N 3886);
Certification of a Cooktop

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: The FAA issues these special conditions for the Airbus Model A318–112. This airplane, as modified by Bizjet, a Luthansa Technik Company, will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport-category airplanes. The modification consists of installing an electrically heated surface, called a cooktop. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: The effective date of these special conditions is December 23, 2009.

We must receive your comments by February 18, 2010.

ADDRESSES: You must mail two copies of your comments to: Federal Aviation Administration, Transport Airplane Directorate, Attn: Rules Docket (ANM–113), Docket No. NM422, 1601 Lind Avenue, SW., Renton, Washington 98057–3356. You may deliver two copies to the Transport Airplane Directorate at the above address. You must mark your comments: Docket No. NM422. You can inspect comments in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.


SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment for these special conditions is impracticable because this procedure would significantly delay certification and delivery of the affected aircraft. In addition, the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. We therefore find that good cause exists for making these special conditions effective upon issuance.

Comments Invited

We invite interested persons to take part in this rulemaking by sending written comments. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel about these special conditions. You may monitor the docket before and after the comment closing date. If you wish to review the docket in person, go to the address in the ADDRESSES section of this preamble between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive by the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive. If you want us to let you know we received your comments on these special conditions, include with your comments a self-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On December 5, 2008, Bizjet International (Bizjet) applied for a supplemental type certificate for the Airbus Model A318–112 airplane, serial number 3886. The Airbus Model A318–112 airplane is a large, transport-category airplane powered by two CFM56–5B9/P engines, with a basic maximum takeoff weight of 130,071 pounds. The modified Airbus Model A318–112 airplane, serial number 3886, operates with a two-pilot crew, up to four flight attendants, and can hold up to 19 passengers.

The modification consists of installing an electrically heated surface, called a cooktop. Cooktops introduce high heat, smoke, and the possibility of fire into the passenger-cabin environment. These potential hazards to the airplane and its occupants must be satisfactorily addressed. Because existing airworthiness regulations do not contain safety standards addressing cooktops, we issue these special conditions.

Type Certification Basis

Under the provisions of Title 14, Code of Federal Regulations (14 CFR) 21.101, Bizjet must show that the Airbus 318–112, as changed, continues to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. A28NM, or the applicable regulations in effect on the date of application for the change. 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 A28NM are 14 CFR part 23, as amended by Amendments 25–1 through 25–56, with reversions to earlier amendments, voluntary compliances, special conditions, equivalent-safety findings, and
exemptions listed in the type-certificate data sheet.

If the Administrator finds that the applicable airworthiness regulations (i.e., part 25, as amended) do not contain adequate or appropriate safety standards for the Model A318–112 airplane 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, the Model A318–112 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.

The FAA issues special conditions, as defined in 14 CFR 11.19, under § 11.38, and they become part of the type certification basis under § 21.101.

Novel or Unusual Design Features

As noted earlier, the modification of the Airbus Model A318–112 airplane, serial number 3886, will incorporate a cooktop in the passenger cabin. Cooktops introduce high heat, smoke, and the possibility of fire into the passenger cabin environment. The current airworthiness standards of part 25 do not contain adequate or appropriate safety standards to protect the airplane and its occupants from these potential hazards. The applicant’s proposed system is considered to be a novel or unusual design feature.

Discussion

Currently, ovens are the prevailing means of heating food on airplanes. Ovens are characterized by an enclosure that contains both the heat source and the food being heated. The hazards presented by ovens are thus inherently limited, and are well understood through years of service experience. Cooktops, on the other hand, are characterized by exposed heat sources and the presence of relatively unrestrained hot cookware and heated food. These may represent unprecedented hazards to both occupants and the airplane.

Cooktops could have serious implications for passenger and airplane safety if appropriate requirements are not established for their installation and use. These special conditions apply to cooktops with electrically powered burners. Use of an open flame is beyond the scope of these special conditions and would require separate rulemaking action. The requirements identified in these special conditions are in addition to the considerations identified in Advisory Circular (AC) 25–10, “Guidance for Installation of Miscellaneous Non-required Electrical Equipment,” and those in AC 25–17, “Transport Airplane Cabin Interiors Crashworthiness Handbook.” The intent of these special conditions is to provide a level of safety consistent with that on similar airplanes without cooktops.

Applicability

As discussed above, these special conditions are applicable to the Model A318–112 airplane, serial number 3886, modified by Bizjet. Should Bizjet apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate No. A28NM, to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

Under standard practice, the effective date of final special conditions would be 30 days after the date of publication in the Federal Register. However, because the certification date for the subject modification to the Model A318–112 is imminent, the FAA finds that good cause exists to make these special conditions effective upon issuance.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type-certification basis for the Airbus Model A318–112 airplane, serial number 3886, modified by Bizjet.

Cooktop installations with electrically powered burners must comply with the following criteria:

1. Means, such as conspicuous burner-on indicators, physical barriers, or handholds, must be installed to minimize the potential for inadvertent personnel contact with hot surfaces of both the cooktop and cookware. Conditions of turbulence must be considered.

2. Sufficient design means must be included to restrain cookware while in place on the cooktop, as well as representative contents, e.g., soup, sauces, etc., from the effects of flight loads and turbulence. Restraints must be provided to preclude hazardous movement of cookware and contents. These restraints must accommodate any cookware that is identified for use with the cooktop. Restraints must be designed to be easily utilized and effective in service. The cookware restraint system should also be designed so that it will not be easily disabled, thus rendering it unusable. Placarding must be installed which prohibits the use of cookware that cannot be accommodated by the restraint system.

3. Placarding must be installed which prohibits any burner from being powered when the cooktop is unattended, which would prohibit a single person from cooking on the cooktop and intermittently serving food to passengers while any burner is powered; and a fire detector must be installed in the vicinity of the cooktop, and which provides an audible warning in the passenger cabin; and a fire extinguisher of appropriate size and extinguishing agent must be installed in the immediate vicinity of the cooktop. Access to the extinguisher must not be blocked by a fire on or around the cooktop. One of the fire extinguishers required by § 25.851 may be used to satisfy this requirement. If this is not possible, then the extinguisher in the galley area would be additional, or:

b. An automatic, thermally activated, fire-suppression system must be installed to extinguish a fire at the cooktop and immediately adjacent surfaces. The agent used in the system must be an approved, total-flooding agent suitable for use in an occupied area. The fire-suppression system must have a manual override. The automatic activation of the fire-suppression system must also automatically shut off power to the cooktop.

5. The surfaces of the galley surrounding the cooktop, which would be exposed to a fire on the cooktop surface or in cookware on the cooktop, must be constructed of materials that comply with the flammability requirements of Part III of Appendix F of part 25. This requirement is in addition to the flammability...
requirements typically required of the materials in these galley surfaces. During the selection of these materials, consideration must also be given to ensure that the flammability characteristics of the materials will not be adversely affected by the use of cleaning agents and utensils used to remove cooking stains.

6. The cooktop must be ventilated with a system independent of the airplane cabin and cargo ventilation system. Procedures and time intervals must be established to inspect and clean or replace the ventilation system to prevent a fire hazard from the accumulation of flammable oils and be included in the instructions for continued airworthiness. The ventilation system ducting must be protected by a flame arrester. [Note: The applicant may find additional useful information in the Society of Automotive Engineers, Aerospace Recommended Practice 85, Rev. E, article titled, “Air Conditioning Systems for Subsonic Airplanes,” August 1, 1991.]

7. Means must be provided to contain spilled foods or fluids in a manner that prevents the creation of a slipping hazard to occupants, and that will not lead to the loss of structural strength due to corrosion.

8. Cooktop installations must provide adequate space for the user to immediately escape a hazardous cooktop condition.

9. A means to shut off power to the cooktop must be provided at the galley containing the cooktop and in the cockpit. If additional switches are introduced in the cockpit, revisions to smoke or fire emergency procedures of the AFM will be required.

10. A deployable cover must be readily available to cover the cooktop. The cooktop must be in stowed position during taxi, takeoff, and landing operation. When the cooktop is in the stowed position, the power must be automatically shut off.

Issued in Renton, Washington, on December 23, 2009.

Ali Bahrami,
Manager, Transport Airplane Directorate, Aircraft Certification Service.

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