The digital systems architecture for the Airbus Model A350–900 airplane is composed of several connected networks. This network architecture is used for a diverse set of functions, providing data connectivity between systems, including:

1. Airplane control, communication, display, monitoring and navigation systems,
2. Operator business and administrative support systems,
3. Passenger entertainment systems, and
4. Access by systems external to the airplane.

Discussion

The Airbus Model A350–900 airplane network architecture and configuration may allow increased connectivity to, and access from, external network sources, and operator operations and maintenance networks to the airplane control domain and operator-information-services domain. The airplane-control domain and operator-information-services domain perform functions required for the safe operation and maintenance of the airplane. Previously, these domains had very limited connectivity with external network sources. The network architecture and configuration may allow the exploitation of network-security vulnerabilities resulting in intentional or unintentional destruction, disruption, degradation, or exploitation of data, systems, and networks critical to the safety and maintenance of the airplane.

The existing regulations and guidance material did not anticipate these types of airplane system architectures. Furthermore, 14 CFR regulations and current system-safety assessment policy and techniques do not address potential security vulnerabilities, which could be exploited by unauthorized access to airplane networks, data buses, and servers. Therefore, these special conditions are to ensure that unauthorized wired or wireless electronic connections do not compromise the security (i.e., confidentiality, integrity, and availability) of airplane systems.

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.

Discussion of Comments

Notice of proposed special conditions No. 25–13–17–SC for the Airbus Model A350–900 airplane was published in the **Federal Register** on December 17, 2013 (78 FR 76251)

Comment From Airbus

Airbus had one comment about the following wording of the first paragraph of the Proposed Special Conditions:

The applicant must ensure airplane electronic system security protection from access to or by unauthorized sources external to the airplane, including those possibly caused by maintenance activity.

Airbus considers that the wording ''to or by'' is incorrect. The protection must prevent access from unauthorized sources external to the airplane only. The requirement of protection to unauthorized sources external to the airplane, is not relevant.

Therefore, Airbus suggests that the wording be modified as follows:

The applicant must ensure airplane electronic system security protection from access by unauthorized sources external to the airplane, including those possibly caused by maintenance activity.

FAA Response

The FAA agrees with Airbus and has changed the special conditions accordingly.

Applicability

As discussed above, these special conditions apply to Airbus Model A350–900 series airplanes. Should Airbus apply later for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on the Airbus Model A350–900 series airplanes. It is not a rule of general applicability.

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 Airbus Model A350–900 series airplanes.

1. The applicant must ensure airplane electronic system-security protection from access by unauthorized sources external to the airplane, including those possibly caused by maintenance activity.

2. The applicant must ensure that electronic system-security threats are identified and assessed, and that effective electronic system-security protection strategies are implemented to protect the airplane from all adverse impacts on safety, functionality, and continued airworthiness.

3. The applicant must establish appropriate procedures to allow the operator to ensure that continued airworthiness of the airplane is maintained, including all post-type-certification modifications that may have an impact on the approved electronic system-security safeguards.

Issued in Renton, Washington, on August 15, 2014.

Jeffrey E. Duven,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014–21243 Filed 9–5–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2013–1002; Special Conditions No. 25–530–SC]

Special Conditions: Airbus Model A350–900 Airplane; Lightning Protection of Fuel-Tank Structure To Prevent Fuel-Tank Vapor Ignition

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for Airbus Model A350–900 airplanes.

These airplanes will have a novel or unusual design feature that will incorporate a nitrogen generation system (NGS) for all fuel tanks, to actively reduce flammability exposure within the fuel tanks significantly below that required by the fuel-tank flammability regulations. Among other benefits, the NGS significantly reduces the potential for fuel-vapor ignition caused by lightning strikes. 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: *Effective Date:* October 8, 2014.

FOR FURTHER INFORMATION CONTACT: Doug Bryant, Propulsion/Mechanical Systems, ANM–112, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98057–3356; telephone (425) 227–2384; facsimile (425) 227–1320.

SUPPLEMENTARY INFORMATION:

Background

On August 25, 2008, Airbus applied for a type certificate for their new Model A350–900 airplane. Later, Airbus requested, and the FAA approved, an extension to the application for FAA type certification to November 15, 2009. The Model A350–900 airplane has a conventional layout with twin wing-mounted Rolls-Royce Trent XWB engines. It features a twin-aisle, 9-abreast, economy-class layout, and accommodates side-by-side placement of LD–3 containers in the cargo compartment. The basic Model A350–900 airplane configuration accommodates 315 passengers in a standard two-class arrangement. The design cruise speed is Mach 0.85 with a maximum take-off weight of 602,000 lbs. The Model A350–900 series airplane has a composite wing and fuel-tank structure constructed of carbon-fiber-reinforced plastic materials.

Type Certification Basis

Under Title 14, Code of Federal Regulations (14 CFR) 21.17, Airbus must show that the Model A350–900 airplane meets the applicable provisions of 14 CFR part 25, as amended by Amendments 25–1 through 25–129.

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 Model A350–900 airplane because of a novel or unusual design feature, special conditions are prescribed under § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Model A350–900 airplane 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 must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

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 § 21.17(a)(2).

Novel or Unusual Design Features

The Airbus Model A350–900 airplane will incorporate the following novel or unusual design features: Fuel-tank NGS that is intended to control fuel-tank flammability for all fuel tanks. This NGS is designed to provide a level of performance that applies the more stringent standard for warm-day flammability performance applicable to normally emptied tanks within the fuselage contour from § 25.981(b), and 14 CFR part 25 appendix M, to all fuel tanks of the Model A350–900 airplane. This high level of NGS performance for all fuel tanks is a novel or unusual design feature not envisioned at the time the regulations applying to the Model A350–900 airplane certification basis were issued.

Discussion

The certification basis of the Airbus Model A350–900 airplane includes § 25.981, as amended by Amendment 25–125, as required by 14 CFR 26.37. This amendment includes the ignition-prevention requirements in § 25.981(a), as amended by Amendment 25–102. It includes revised flammability limits for all fuel tanks, and new specific limitations on flammability for all fuel tanks as defined in § 25.981(b), as amended by Amendment 25–125.

Ignition Source Prevention

Section 25.981(a)(3) requires applicants to show that an ignition source in the fuel-tank system could not result from any single failure, from any single failure in combination with any latent failure condition not shown to be extremely remote, or from any combination of failures not shown to be extremely improbable. This requirement was originally adopted in Amendment 25–102, and it requires the assumption that the fuel tanks are always flammable when showing that the probability of an ignition source being present is extremely remote. (Amendment 25–102 included § 25.981(c), which required minimizing fuel-tank flammability, and this was defined in the preamble as being equivalent to unheated aluminum fuel tanks located in the wing.) This requirement defines three types of scenarios that must be addressed to show compliance with § 25.981(a)(3). The first scenario is that any single failure, regardless of the probability of occurrence of the failure, must not cause an ignition source. The second scenario is that any single failure, regardless of the probability of occurrence, in combination with any latent failure condition not shown to be at least extremely remote, must not cause an ignition source. The third scenario is that any combination of failures not shown to be extremely improbable must not cause an ignition source. Demonstration of compliance with this requirement would typically require a structured, quantitative safety analysis. Design areas that have latent failure conditions typically would be driven by these requirements to have multiple fault tolerance, or ''triple redundancy.'' This means that ignition sources are still prevented even after two independent failures.

Flammability Limits

Section 25.981(b) states that no fuel-tank fleet-average flammability exposure may exceed 3 percent of the flammability-exposure evaluation time calculated using the method in part 25, Appendix N, or the fleet-average flammability of a fuel tank within the wing of the airplane being evaluated, whichever is greater. If the wing is not a conventional, unheated aluminum wing, the analysis must be based on an assumed equivalent, conventional construction, unheated, aluminum wing. In addition, for fuel tanks that are normally emptied during operation and that have any part of the tank located within the fuselage contour, the fleet-average flammability for warm days (above 80 °F) must be limited to 3 percent, as calculated using the method in part 25, Appendix M.

Application of Existing Regulations Inappropriate Due to Impracticality

Since the issuance of § 25.981(a)(3), as amended by Amendment 25–102, the FAA has conducted certification projects in which applicants found it impractical to meet the requirements of that regulation for some areas of lightning protection for fuel tank structure. Partial exemptions were issued for these projects. These same difficulties exist for the Airbus Model A350–900 airplane project.

The difficulty of designing multiple-fault-tolerant structure, and the difficulty of detecting failures of hidden structural-design features in general, makes compliance with § 25.981(a)(3) uniquely challenging and impractical for certain aspects of the electrical bonding of structural elements. Such bonding is needed to prevent occurrence of fuel-tank ignition sources from lightning strikes. The effectiveness and fault tolerance of electrical-bonding

features for structural joints and fasteners is partially dependent on design features that cannot be effectively inspected or tested after assembly without damaging the structure, joint, or fastener. Examples of such features include a required interference fit between the shank of a fastener and the hole in which the fastener is installed; metal foil or mesh imbedded in composite material; a required clamping force provided by a fastener to pull two structural parts together; and a required faying surface bond between the flush surfaces of adjacent pieces of structural material, such as in a wing-skin joint, or a mounting-bracket installation. In addition, other features that physically can be inspected or tested may be located within the fuel tanks. Therefore, it is not practical to inspect for failures of those features at short intervals. Examples of such failures include separation or loosening of cap seals over fastener ends, and actual structural failures of internal fasteners. This inability to practically detect manufacturing errors and failures of structural-design features critical to lightning protection results in degraded conditions that occur and remain in place for a very long time, possibly for the remaining life of the airplane. The complex construction techniques associated with composite structure can make these aspects particularly challenging.

Accounting for such long failure-latency periods in the system safety analysis, required by § 25.981(a)(3), would require multiple fault tolerance in the structural lightning-protection design. As part of the design-development activity for the Model A350–900 airplane, Airbus has examined possible design provisions to provide multiple fault tolerance in the structural design to prevent ignition sources from occurring in the event of lightning attachment to the airplane in critical locations. Airbus has concluded from this examination that providing multiple fault tolerance for some structural elements is not practical. Airbus has also identified some areas of the Model A350–900 airplane design where it is impractical to provide even single-fault tolerance in the structural design to prevent ignition sources from occurring in the event of lightning attachment after a single failure. The FAA has reviewed this examination with Airbus in detail and has agreed that providing fault tolerance beyond that in the Model A350–900 airplane design for these areas would be impractical.

As a result of the Airbus Model A350–900 airplane and other certification projects, the FAA has now determined that compliance with § 25.981(a)(3) is impractical for some areas of lightning protection for fuel-tank structure, and that application of § 25.981(a)(3) to those design areas is therefore inappropriate. The FAA plans further rulemaking to revise § 25.981(a)(3). As appropriate, the FAA plans to issue special conditions or exemptions for certification projects progressing before the revision is complete. This is discussed in FAA Memorandum ANM–112–08–002, *Policy on Issuance of Special Conditions and Exemptions Related to Lightning Protection of Fuel Tank Structure,* dated May 26, 2009.[1]

Application of Existing Regulations Inappropriate Due to Compensating Feature That Provides Equivalent Level of Safety

Section 25.981(b) sets specific standards for fuel-tank flammability as discussed above under ''Flammability Limits.'' Under that regulation, the fleet-average flammability exposure of all fuel tanks on the Model A350–900 airplane may not exceed 3 percent of the flammability-exposure evaluation time calculated using the method in part 25, Appendix N, or the fleet-average flammability of a wing main tank within an equivalent construction, conventional, unheated, aluminum wing fuel tank, whichever is greater. The typical fleet-average fuel-tank flammability of fuel tanks located in the wing ranges between 1 and 5 percent. If it is assumed that a Model A350–900 airplane equivalent, conventional, unheated, aluminum wing fuel tank would not exceed a fleet-average flammability time of 3 percent, the actual composite Model A350–900 airplane wing-fuel-tank design would be required to comply with the 3 percent fleet average flammability standard, and therefore a means to reduce the flammability to 3 percent would be required. However, the Model A350–900 airplane design includes NGS for all fuel tanks that will also be shown to meet the additional, more-stringent warm-day average flammability standard in part 25, Appendix M, which is only required for normally emptied fuel tanks with some part of the tank within the fuselage contour. Fuel tanks that meet this requirement typically have average fuel-tank flammability levels well below the required 3 percent.

Since the NGS for all fuel tanks on the Model A350–900 airplane provides performance that meets part 25, Appendix M, the FAA has determined that the risk reduction provided by this additional performance will provide compensation for some relief from the ignition-prevention requirements of § 25.981(a)(3) while still establishing a level of safety equivalent to that established in the regulations.

In determining the appropriate amount of relief from the ignition-prevention requirements of § 25.981(a), the FAA considered the original overall intent of Amendment 25–102, which was to ensure the prevention of catastrophic events due to fuel-tank vapor explosion. These special conditions are intended to achieve that objective through a prescriptive requirement that fault tolerance (with respect to the creation of an ignition source) be provided for all structural lightning protection design features where providing such fault tolerance is practical, and through a performance-based standard for the risk due to any single-failure vulnerability that exists in the design. In addition, for any structural lightning-protection design features for which Airbus shows that providing fault tolerance is impractical, these special conditions require Airbus to show that a fuel-tank vapor-ignition event, due to the summed risk of all non-fault-tolerant design features, is extremely improbable. Airbus would be required to show that the design meets this safety objective using a structured system-safety assessment similar to that currently used for demonstrating compliance with §§ 25.901 and 25.1309.

Given these novel or unusual design features, and the compliance challenges noted earlier in this document, the FAA has determined that application of § 25.981(a)(3) is inappropriate in that it is neither practical nor necessary to apply the ignition-source-prevention provisions of § 25.981(a)(3) to the specific fuel-tank structural lightning-protection features of the Airbus Model A350–900 airplane. However, without the § 25.981(a)(3) provisions, the remaining applicable regulations in the Model A350–900 airplane certification basis would be inadequate to set an appropriate standard for fuel-tank ignition prevention. Therefore, in accordance with provisions of § 21.16, the FAA has determined that, instead of § 25.981(a)(3), alternative fuel-tank structural lighting-protection requirements be applied to fuel-tank lightning-protection features that are integral to the airframe structure of the

[1] The memorandum may be viewed at: *http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgPolicy.nsf/0/12350AE62D393B7A862575C300709CA3?OpenDocument&Highlight=anm-112-08-002*

Model A350–900 airplane. These alternative requirements are intended to provide the level of safety intended by § 25.981(a)(3), based on our recognition, as discussed above, that a highly effective NGS for the fuel tanks makes it unnecessary to assume that the fuel tank is always flammable. As discussed previously, the assumption that the fuel tanks are always flammable was required when demonstrating compliance to the ignition-prevention requirements of § 25.981(a)(3).

One resulting difference between these special conditions and the § 25.981(a)(3) provisions they are meant to replace is the outcome being prevented—fuel-vapor ignition versus an ignition source. These special conditions acknowledge that the application of fuel-tank-flammability performance standards will reduce fuel-tank flammability to an extent that it is appropriate to consider the beneficial effects of flammability reduction when considering design areas where it is impractical to comply with § 25.981(a)(3).

One of the core requirements of these special conditions is a prescriptive requirement that structural lightning-protection design features must be fault tolerant. (An exception, wherein Airbus can show that providing fault tolerance is impractical, and associated requirements, is discussed below.) The other core requirement is that Airbus must show that the design, manufacturing processes, and *Airworthiness Limitations* section of the *Instructions for Continued Airworthiness* include all practical measures to prevent, and detect and correct, failures of structural-lightning protection features due to manufacturing variability, aging, wear, corrosion, and likely damage. The FAA has determined that, if these core requirements are met, a fuel-tank vapor-ignition event, due to lightning, is not anticipated to occur in the life of the airplane fleet. This conclusion is based on the fact that a critical lightning strike to any given airplane is itself a remote event, and on the fact that fuel tanks must be shown to be flammable only for a relatively small portion of the fleet operational life.

For any non-fault-tolerant features in the design, Airbus must show that eliminating these features or making them fault tolerant is impractical. The requirements and considerations for showing it is impractical to provide fault tolerance are described in FAA Memorandum ANM–112–08–002. This requirement is intended to minimize the number of non-fault-tolerant features in the design.

For areas of the design where Airbus shows that providing fault-tolerant structural lighting-protection features is impractical, non-fault-tolerant features will be allowed, provided Airbus can show that a fuel-tank vapor-ignition event, due to the non-fault-tolerant features, is extremely improbable when the sum of probabilities of those events, due to all non-fault-tolerant features, is considered. Airbus will be required to submit a structured, quantitative assessment of fleet-average risk for a fuel-tank vapor-ignition event due to all non-fault-tolerant design features included in the design. This will require determination of the number of non-fault-tolerant design features, estimates of the probability of the failure of each non-fault-tolerant design feature, and estimates of the exposure time for those failures. This analysis must include failures due to manufacturing variability, aging, wear, corrosion, and likely damage.

It is acceptable to consider the probability of fuel-tank flammability, the probability of a lightning strike to the airplane, the probability of a lightning strike to specific zones of the airplane (for example, Zone 2 behind the nacelle, but not a specific location or feature), and a distribution of lightning-strike amplitude in performing the assessment, provided the associated assumptions are acceptable to the FAA. The analysis must account for any dependencies among these factors, if they are used. The assessment must also account for operation with inoperative features and systems, including any proposed or anticipated dispatch relief. This risk-assessment requirement is intended to ensure that an acceptable level of safety is provided given the non-fault-tolerant features in the design.

Part 25, Appendix N, as adopted in Amendment 25–125, in conjunction with these special conditions, constitutes the standard for how to determine flammability probability. In performing the safety analysis required by these special conditions, relevant § 25.981(a)(3) compliance guidance is still applicable. Appropriate credit for the conditional probability of environmental or operational conditions occurring is normally limited to those provisions involving multiple failures, and this type of credit is not normally allowed in evaluation of single failures. However, these special conditions would allow consideration of the probability of occurrence of lightning attachment and flammable conditions when assessing the probability of structural failures resulting in a fuel-tank vapor-ignition event.

The FAA understands that lightning-protection safety for airplane structure is inherently different from lightning protection for systems. We intend to apply these special conditions only to structural lightning-protection features of fuel systems. We do not intend to apply the alternative standards used under these special conditions to other areas of the airplane-design evaluation.

Requirements Provide Equivalent Level of Safety

In recognition of the unusual design feature discussed above, and the impracticality of requiring multiple fault tolerance for lightning protection of certain aspects of fuel-tank structure, the FAA has determined that a level of safety equivalent to direct compliance with § 25.981(a)(3) will be achieved for the Model A350–900 airplane by applying these requirements. The FAA considers that, instead of only concentrating on fault tolerance for ignition-source prevention, significantly reducing fuel-tank flammability exposure, in addition to preventing ignition sources, is a better approach to lightning protection for the fuel tanks. In addition, the level of average fuel-tank flammability achieved by compliance with these special conditions is low enough that it is not appropriate or accurate to assume, in a safety analysis, that the fuel tanks may always be flammable.

Section 25.981(b), as amended by Amendment 25–125, sets limits on the allowable fuel-tank flammability for the Model A350–900 airplane. Condition 2(a) of these special conditions applies the more-stringent standard, for warm-day flammability performance applicable to normally emptied tanks within the fuselage contour, from § 25.981(b) and part 25, Appendix M, to all of the fuel tanks of the Model A350–900 airplane.

Because of the more-stringent fuel-tank flammability requirements in these special conditions, and because the flammability state of a fuel tank is independent of the various failures of structural elements that could lead to an ignition source in the event of lightning attachment, the FAA has agreed that it is appropriate in this case to allow treatment of flammability as an independent factor in the safety analysis. The positive control of flammability, and the lower flammability that is required by these special conditions, exceed the minimum requirements of § 25.981(b). This offsets a reduction of the stringent standard for ignition-source prevention in § 25.981(a)(3), which assumes that the fuel tank is flammable at all times.

Given the stringent requirements for fuel-tank flammability, the fuel-vapor ignition prevention, and the ignition-source prevention requirements in these special conditions will prevent ''. . . catastrophic failure . . . due to ignition of fuel or vapors,'' as stated in § 25.981(a). Thus, the overall level of safety achieved by these special conditions is considered equivalent to that which would be required by compliance with § 25.981(a)(3) and (b).

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.

Discussion of Comments

Notice of proposed special conditions No. 25–13–36–SC for Airbus Model A350–900 series airplanes was published in the **Federal Register** on December 19, 2013 (78 FR 76775). No comments were received, and the special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions apply to Airbus Model A350–900 series airplanes. Should Airbus apply later for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on the Airbus Model A350–900 series airplanes. It is not a rule of general applicability.

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 Airbus Model A350–900 series airplanes.

1. Definitions

Most of the terms used in the special conditions described in Alternative Fuel Tank Structural Lightning Protection Requirements either have the common dictionary meaning or are defined in Advisory Circular 25.1309–1A, *System Design and Analysis,* dated June 21, 1988.

The following definitions are the only terms intended to have a specialized meaning when used in these special conditions:

(a) *Basic Airframe Structure.* Includes design elements such as structural members, structural joint features, and fastener systems including airplane skins, ribs, spars, stringers, etc., and associated fasteners, joints, coatings, and sealant. Basic airframe structure may also include those structural elements that are expected to be removed for maintenance, such as exterior fuel-tank access panels and fairing-attachment features, provided maintenance errors that could compromise associated lightning-protection features would be evident upon an exterior, preflight inspection of the airplane and would be corrected prior to flight.

(b) *Permanent System-Supporting Structure.* Includes static, permanently attached structural parts (such as brackets) that are used to support system elements. It does not include any part intended to be removed, or any joint intended to be separated, to maintain or replace system elements or other parts, unless that part removal or joint separation is accepted by the FAA as being extremely remote.

(c) *Manufacturing Variability.* Includes tolerances and variability that the design and production specifications allow, as well as anticipated errors or escapes from the manufacturing and inspection processes.

(d) *Extremely Remote.* Conditions that are not anticipated to occur to each airplane during its total life, but which may occur a few times when considering the total operational life of all airplanes of one type. Extremely remote conditions are those having an average probability per flight hour on the order of 1×10^{-7} or less, but greater than on the order of 1×10^{-9}.

(e) *Extremely Improbable.* Conditions that are so unlikely that they are not anticipated to occur during the entire operational life of all airplanes of one type. Extremely improbable conditions are those having an average probability per flight hour of the order of 1×10^{-9} or less.

2. Alternative Fuel-Tank Structural Lightning-Protection Requirements

For lightning-protection features that are integral to fuel-tank basic airframe structure or permanent system-supporting structure, as defined in this these special conditions Definitions, for which Airbus shows and the FAA finds compliance with § 25.981(a)(3) to be impractical, the following requirements may be applied in lieu of the requirements of § 25.981(a)(3):

(a) Airbus must show that the airplane design meets the requirements of part 25, Appendix M, as amended by Amendment 25–125, for all fuel tanks installed on the airplane.

(b) Airbus must show that the design includes at least two independent, effective, and reliable lightning-protection features (or sets of features) such that fault tolerance to prevent lightning-related ignition sources is provided for each area of the structural design to be shown compliant with these special conditions in lieu of compliance with the requirements of § 25.981(a)(3). Fault tolerance is not required for any specific design feature if:

(1) For that feature, providing fault tolerance is shown to be impractical, and

(2) Fuel-tank vapor ignition due to that feature and all other non-fault-tolerant features, when their fuel-tank vapor-ignition event probabilities are summed, is shown to be extremely improbable.

(c) Airbus must perform an analysis to show that the design, manufacturing processes, and airworthiness limitations section of the instructions for continued airworthiness include all practical measures to prevent, and detect and correct, failures of structural lightning-protection features due to manufacturing variability, aging, wear, corrosion, and likely damage.

Issued in Renton, Washington, on August 15, 2014.

Jeffrey E. Duven,

Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014–21245 Filed 9–5–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Parts 310, 314, 329, and 600

[Docket No. FDA–2008–N–0334]

RIN 0910–AF96

Postmarketing Safety Reports for Human Drug and Biological Products; Electronic Submission Requirements; Correction

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule; correction.