Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 25, 27, 29, 91, 121, 125 and 135

[Docket No.: FAA–2019–0491; Notice No. 23–12]

RIN 2120–AK34

Interior Parts and Components Fire Protection for Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: In Notice 19–09, published on July 3, 2019, the FAA proposed to amend certain regulations for fire protection of interior compartments on transport category airplanes. Based on certain comments received, the FAA is providing additional information on its proposed elimination of a smoke emissions testing requirement. The FAA is also changing its calculations related to the proposed rule's costs and benefits. This notice offers interested persons an opportunity to comment on these changes.

DATES: Send comments on or before October 2, 2023.

ADDRESSES: Send comments identified by docket number FAA–2019–0491 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *www.regulations.gov* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

Docket: Background documents or comments received may be read at *www.regulations.gov* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Jeff Gardlin, AIR–20, Office of Senior Technical Experts, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, WA 98198; telephone (206) 231–3146; email *Jeff.Gardlin@faa.gov.*

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules on aviation safety is found in title 49 of the United States Code. Subtitle I, section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in subtitle VII, part A, subpart III, section 44701, ''General Requirements.'' Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards for the design and performance of aircraft that the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority. It revises the safety standards for the flammability characteristics, and thus the design, material, and construction, of transport category airplanes.

I. Background

A. Summary of Prior Notice of Proposed Rulemaking (NPRM)

On July 3, 2019, the FAA published in the **Federal Register** an NPRM titled ''Interior Parts and Components Fire Protection for Transport Category Airplanes'' (84 FR 31747). In the NPRM, the FAA proposed to amend certain airworthiness regulations for fire protection of interior compartments on transport category airplanes. The proposal would convert those flammability regulations from detailed, prescriptive requirements into simpler, performance-based standards. The proposal would divide these standards into two categories: those designed to protect the airplane and its occupants from the hazards of in-flight fires, and those designed to protect the airplane and its occupants from the hazards caused by post-crash fires. In addition, the proposal would remove test methods, including heat release and smoke emissions tests, from the regulations, replacing them with performance-based requirements.

B. Response to Public Comments on Proposed Replacement of Smoke Emissions Test Requirement With Performance-Based Standards

The FAA received several comments on its proposal to remove the smoke emissions test as a requirement for compliance with the proposed performance-based standard of § 25.853(d)(2). As noted in the NPRM, proposed § 25.853(d) would provide a general standard that the airplane's parts, components, and assemblies maintain survivable cabin conditions for enough time to allow evacuation. For large surfaces in the passenger cabin, the specific survivability requirement would be dependent on the passenger capacity of the proposed airplane, because emergency egress is generally much faster on smaller airplanes. For airplanes with 19 passengers or less, proposed § 25.853(d)(1) would require each large surface in the passenger cabin to be self-extinguishing when exposed to a small flame for at least 60 seconds. For airplanes with a passenger capacity of 20 passengers or more, proposed § 25.853(d)(2) would require, with limited exception, that each large surface in the passenger cabin resist involvement in a post-crash fuel fire

that has entered the fuselage. For the purposes of this requirement, 'resist involvement' would mean that, when exposed to a post-crash fuel fire, the thermal decomposition of the affected materials would not produce cabin conditions that would prevent or delay egress, in a time less than egress would otherwise occur.

The traditional means of measuring this capability, and thus the FAA's regulatory requirement in appendix F, has been to conduct two tests: an examination of the material's heat release, due to the nexus of heat release with flashover,[1] as well as of its smoke emissions, since heavy smoke could similarly prevent timely egress. As discussed in the NPRM, the FAA has concluded that, for traditional (previously approved) materials and material systems, for which compliance data already exists, heat release test results alone would be sufficient to determine that the material resists involvement in a post-crash fire.

As with all the requirements in § 25.853, applicants must currently show compliance via a specific (smoke emissions) test set forth in part V of appendix F of part 25, title 14, Code of Federal Regulations (14 CFR).

SABIC, GBH International, Airbus, and several individuals disagreed with the FAA's statement in the NPRM that the smoke emissions test requirement had not been shown to have contributed to fire safety in an actual accident.[2] These commenters said that because the smoke emissions test has long been a requirement, there is no way to know whether it has contributed to fire safety. These commenters noted that some materials will pass the heat release tests but fail the smoke emissions test, and therefore cannot be used under current regulations. These commenters asserted that the proposed rule would permit these materials' use, with an unknown effect on safety.

Airbus, Boeing, and the International Coordinating Council of Aerospace Industries Associations objected to the NPRM's assertion that, since the smoke emissions test was in use by industry before it became a regulatory requirement, it would likely continue to be used, to some extent, after it was no longer required.[3] These commenters stated that airplane manufacturers would have no incentive to continue to conduct the smoke emissions test, if the FAA determined that it did not add to safety. SABIC, GHB International, and the Airline Pilots Association opined that smoke was a survivability factor in the post-crash environment, and therefore that the FAA should retain a requirement that applicants conduct a smoke emissions test.

Regarding the contribution of the smoke emissions test to fire safety, the FAA's statement in the NPRM referred to the lack of correlation, in full-scale fire tests, between that particular test and survivability.[4] Although the FAA considers the presence of smoke to be a significant survivability factor in a post-crash fire, as discussed in the NPRM it is the smoke emission test results that have not been shown to have clear correlation to survivability. Also, a prescriptive smoke emissions test requirement in addition to a heat release test requirement will screen out materials that either test, by itself, would not. The key question, for this issue in this proposed rulemaking, is the extent to which screening out those additional materials contributes to occupant survivability in an actual post-crash fire; or whether the effect of a regulatory requirement to conduct both types of tests is solely to limit the options available to applicants. Since some of the comments questioning whether applicants would voluntarily conduct a smoke emissions test came from those manufacturers, the FAA agrees that its estimate of continued voluntary usage of the smoke emissions test by industry was likely incorrect.

The NPRM described the heat release rate (HRR) test as a compliance method that would be available to meet proposed § 25.853(d)(2).[5] That section would require that materials resist involvement in a post-crash fire to the extent that survivability would not be affected. The NPRM also stated, however, that ''if data from the HRR testing does not ensure the post-crash fuel fire performance of a given material, an applicant could show compliance via another means.'' [6] With this supplemental notice of proposed rulemaking (SNPRM), the FAA provides additional information on methods of showing compliance.

For existing material systems,[7] and traditional aircraft parts (*i.e.,* those that have already passed the smoke emissions test previously in appendix F, part V), successful HRR test results alone would be sufficient to show that the material resists involvement in a post-crash fire, per § 25.853(d)(2).

Applicants proposing a design that incorporates a new material or material system that has not been previously approved by the FAA, and thus for which no compliance data exists, would need to provide more data in order to show survivability. Results showing passage of only the HRR test would not be sufficient, and applicants would need to provide an assessment of the material's smoke emissions characteristics. However, since the current regulatory requirement is to use both smoke emissions and heat release test results to determine whether a material sufficiently resists involvement in a post-crash fire, and since the intent of this proposal is not to change the level of safety in this regard, for such wholly new materials the FAA would accept a compliance demonstration that includes an assessment of both heat release and smoke emissions test results.

Applicants could also combine successful HRR test results with a showing that the new material's smoke emissions characteristics are consistent with the characteristics of parts for which there is already approved data. As explained below, an applicant could show that the new material does not have distinctly different characteristics than materials that have already been found to meet the current smoke emissions test in part V of appendix F.

To assist applicants' use of smoke emission data as part of their showing of survivability, the FAA has updated, and placed in the docket for comment with this SNPRM, draft Advisory Circular (AC) 25.853–1A. That draft AC references the FAA's development of a modification to the apparatus defined in chapter A4 DOT/FAA/TC–17/55, ''Aircraft Materials Fire Test Handbook,'' Revision 3, dated June 2019. Chapter A4 includes a test known as the ''HR2''. This modification to the test apparatus uses a method of continuously assessing smoke with lasers, and accounts for the total smoke emission over the course of the test.[8]

In the method provided by the draft AC, an applicant could use a proposed material's smoke emissions

[1] See, *e.g., The Case for Relating Flashover to Heat Release Rate Measurements on Cabin Materials,* Fire Safety Branch, FAA Technical Center (Apr. 2, 1986), available at *https://www.fire.tc.faa.gov/pdf/fsr-0338.pdf* and in the docket.

[2] *Interior Parts and Components Fire Protection for Transport Category Airplanes; NPRM.* 84 FR 31752 (July 3, 2019).

[3] Ibid, 84 FR 31753.

[4] Ibid, 84 FR 31752.

[5] Ibid, 84 FR 31753.

[6] Ibid, 84 FR 31753.

[7] A ''material system'' is the underlying chemistry and associated processes to produce specific materials.

[8] Passage of the HR2 test will not be required to demonstrate a new materials' smoke emissions characteristics. As described in the draft AC, applicants would also be able to use the currently required test from the appendix F, part V; the test method in chapter 6 of DOT/FAA/AR–00/12; or another FAA-accepted test.

characteristics as part of the required showing of survivability if the proposed material generated less than 25 percent more smoke than a material that the FAA previously approved based upon the applicant's showing of compliance with the smoke test in part V of appendix F.[9]

Since applicants do not yet have data from the HR2 regarding smoke emissions, they would be able to gather that information outside of formal (project-specific) certification testing, as long as the applicant has a defined process that is accepted by the FAA. Given that applicants have little experience with the new HR2, they will likely be conducting non-certification tests to gain that experience. The FAA estimates that the costs of gathering this data, and submitting it in future projects, would be minimal. In addition, the FAA would welcome the opportunity to evaluate candidate materials for which the smoke emissions performance is in question. Any such evaluation would result in de-identified publicly available data, of potential benefit to all applicants.

The FAA is also making changes to the way costs and benefits are assessed based on the forecast for new type certificates, and deliveries under those certificates. The FAA also made minor punctation corrections to the proposed revisions to the conforming operational rules.

C. Need for Supplemental Notice of Proposed Rulemaking (SNPRM)

This SNPRM is needed since the FAA is proposing to change some of its cost and benefit calculations, and explaining certain methods of compliance that would use an assessment of smoke emissions to show compliance. This SNPRM offers the public opportunity to comment on the assumptions and criteria the FAA is using in advance of a final rule.

II. Discussion of Supplemental Proposals

As previously discussed, there are no changes to the regulatory proposals. Since the proposed requirements are performance-based, the effect is entirely on the method of compliance to meet one of the proposals in light of comments received.

[9] A difference of 25 percent or more smoke than an approved material would prompt the need to further investigate, and demonstrate, the survivability performance of the new material.

III. Regulatory Notices and Analyses

A. Regulatory Evaluation

Federal agencies consider impacts of regulatory actions under a variety of executive orders and other requirements. First, Executive Order 12866 and Executive Order 13563, as amended by Executive Order 14094 (''Modernizing Regulatory Review''), direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify the costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year. The current threshold after adjustment for inflation is $177 million using the most current (2022) Implicit Price Deflator for the Gross Domestic Product. [The FAA has provided a detailed Regulatory Impact Analysis (RIA) in the docket for this rulemaking.] This portion of the preamble summarizes the FAA's analysis of the economic impacts of this rule.

In conducting these analyses, the FAA has determined that this rule: will result in benefits that justify costs; is not an economically ''significant regulatory action'' as defined in section 3(f) of Executive Order 12866, as amended; will not have a significant economic impact on a substantial number of small entities; will not create unnecessary obstacles to the foreign commerce of the United States; and will not impose an unfunded mandate on State, local, or Tribal governments, or on the private sector. These analyses are summarized below.

1. Summary of Costs and Benefits

The SNPRM is in response to the following changes to the RIA. The analysis for the NPRM RIA included the impacts of the rule on U.S. manufacturers selling airplanes in the U.S. but did not include impacts to foreign operators and foreign manufacturers. This SNPRM analysis adds the impacts of the rule on U.S. manufacturers selling airplanes to foreign operators, and foreign manufacturers selling airplanes to U.S. operators. The NPRM also assumed that all new type certificates would be issued at the start of the analysis. The SNPRM is being updated to better reflect a more realistic schedule for the introduction of new type certificates into the fleet. In this analysis, the introduction of new type certificates are spaced over the time horizon of the analysis rather than all occurring at the start of the time horizon.

By extending fire protection requirements to any extensively used material located in inaccessible areas, the proposal is likely to be beneficial in reducing the likelihood of a fatal accident. Over a 20-year period of analysis, the FAA estimates the total present value cost savings of this SNPRM to be $121.4 million at a seven percent discount rate, with annualized cost savings of $11.7 million. The cost savings would result from the elimination and streamlining of some tests, which would be made possible by the extension of fire protection requirements to inaccessible areas. Over the same 20-year period, the FAA estimates the total present value costs of this SNPRM to be $107.6 million at a seven percent discount rate, with annualized costs of $10.4 million due to the extension of fire protection requirements to extensively used material in inaccessible areas. A full explanation of how these costs and cost savings were estimated may be found in the regulatory impact assessment accompanying this SNPRM. The present value net cost savings (cost savings minus cost) is $13.8 million, with annualized net cost savings of $1.3 million. The following tables summarize the costs and cost savings of this proposed rule for U.S. manufacturers, foreign manufacturers delivering to U.S. operators and then the total for both U.S. manufacturers and foreign manufacturers (delivering to U.S. operators).

U.S. MANUFACTURERS [10]—TOTAL COSTS AND COST SAVINGS

[2020 $]

	19-Year total present value		Annualized	
	7%	3%	7%	3%
Cost Savings	$91,083,070	$142,741,271	$8,812,562	$9,965,322
Costs	56,081,338	74,600,557	5,426,039	5,208,154
Total Net Cost Savings	35,001,732	68,140,714	3,386,523	4,757,168

FOREIGN MANUFACTURERS [11]—TOTAL COSTS AND COST SAVINGS

[2020 $]

	19-Year total present value		Annualized	
	7%	3%	7%	3%
Cost Savings	$30,317,272	$47,104,659	$2,933,287	$3,288,559
Costs	51,520,339	62,218,084	4,984,748	4,343,686
Total Net Cost Savings	−21,203,067	−15,113,425	−2,051,461	−1,055,127

TOTAL COSTS AND COST SAVINGS

[2020 $]

	Total U.S. (1) and foreign manufacturers (2) net cost savings			
	20-Year total present value		Annualized	
	7%	3%	7%	3%
Cost Savings	$121,400,342	$189,845,930	$11,745,849	$13,253,881
Costs	107,601,677	136,818,641	10,410,787	9,551,840
Total Net Cost Savings	13,798,665	53,027,288	1,335,062	3,702,041

(1) Includes deliveries by U.S. manufacturers to U.S. operators and to foreign operators (2) Includes deliveries by foreign manufacturers to U.S. operators.

2. Who is potentially affected by this proposed rule?

Manufacturers of part 25 transport category airplanes would be potentially affected by the proposed rule.

3. Assumptions

- Totals converted to 2020 constant dollars.[12]
- Time horizon for analysis 20 years.[13]
- Fifty percent of the $42.8 million annual costs for smoke emissions testing is incurred by domestic airplane manufacturers.[14]
- Seventeen percent [15] of the $42.8 million annual costs for smoke emissions testing is incurred by non-U.S. manufacturers delivering airplanes to U.S. operators.
- Cost savings from eliminating smoke emissions tests would increase linearly to the level of the current cost savings over 25 years.[16]
- One U.S. manufacturer of large and one U.S. manufacturer of other transport category aircraft.
- One foreign manufacturer of large and two foreign manufacturers of other transport category aircraft.

U.S. Manufacturers Delivering to U.S. Operators

Large Transport Category Airplanes [17]

- Four type certificates over 20 years
- 27 airplanes delivered annually per TC
- 19-year production run

Other Transport Category Airplanes [18]

- Three type certificates over 15 years
- 21 airplanes delivered annually per TC
- 15-year production run

U.S. Manufacturers Delivering to Foreign Operators [19]

Large Transport Category Airplanes

- Four type certificates over 20 years
- 35 aircraft delivered annually per TC
- 19-year production run

[10] Includes U.S. manufacturers delivering to U.S. and foreign operators.

[11] Includes costs for foreign manufacturers deliveries to U.S. operators.

[12] Costs were converted to 2020 dollars from 2015 dollars to be compliant with OMB guidance. Conversion used Bureau of Economic Analysis—Line 1 Gross Domestic Product from Table 1.1.9. Implicit Price Deflators for Gross Domestic Product, last revised on March 25, 2021.

[13] A 20-year time horizon was chosen to be inclusive of the 19-year production cycle for large and the 15-year production cycle for small transport category airplanes.

[14] Fifty percent is an estimate of the share of the worldwide transport airplane market held by U.S. manufacturers.

[15] Seventeen percent is an estimate of the share of deliveries of the worldwide transport airplane market from foreign manufacturers to U.S. operators, obtained from the fleet analyzer database.

[16] Based on manufacturer recommendation.

[17] Based on FAA analysis of Boeing data, OAG Aviation Solutions Fleet Database, FAA Type Certificate Data Sheet database.

[18] Other transport category airplanes are manufactured under part 25 and are other than large transport category airplanes.

[19] See appendix A for derivation of deliveries.

Other Transport Category Airplanes

- Three type certificates over 15 years
- 14 airplanes delivered annually per TC
- 15-year production run

Foreign Manufacturers Delivering to U.S. Operators

Large Transport Category Airplanes

- Two type certificates over 20 years
- 16 airplanes delivered annually per TC
- 19-year production run

Other Transport Category Airplanes

- Five type certificates over 15 years
- 10–15 airplanes delivered annually per TC
- 15-year production run

4. Benefits of the Rule

The proposed new safety requirements to extend the fire protection requirements to any extensively used material [20] located in inaccessible areas would result in a safety benefit by reducing the likelihood of a fatal accident from a fire in an inaccessible area. This benefit was not quantified. Even though there has not been a catastrophic in-flight fire of a passenger-carrying airplane since the Swissair accident in 1998, the continued occurrence of in-flight fire incidents and the growing number of devices using lithium-ion batteries increase the risk of a catastrophic accident, a risk that this proposal would reduce.

5. Costs of This Proposed Rule

Over a 20-year period of analysis, the FAA estimates the total present value costs of this proposed rule to be $107.6 million at a seven percent discount rate, with annualized costs of $10.4 million, which would result from extending the standards developed for thermal/acoustic insulation to all extensively used materials in inaccessible areas. A full explanation of how these costs were estimated may be found in the regulatory impact analysis accompanying this SNPRM.

Over the same 20-year period, the FAA estimates the total quantified cost savings of this proposed rule to be $121.4 million at a seven percent discount rate, with annualized cost savings of $11.7 million. The cost savings would result from the elimination and streamlining of some tests, which would be made possible by the extension of fire protection requirements to inaccessible areas. The total net cost savings of the proposed rule at a seven percent discount rate would be $13.8 million, with annualized net cost savings of $1.3 million.

6. Minimal to No Cost Provisions Including Conforming Changes

Numerous provisions within this proposal would result in minimal to no cost to possibly small cost savings. These include provisions that continue to accept previous test methods or current systems in addition to proposing new ones, those that maintain current requirements or current practice, and small edits to maintain consistency with the current rule. Also included are conforming changes to parts 27, 29, 121, 125, 135, and appendix L to part 121. These sections make reference to, or require testing in accordance with, certain sections of appendix F to part 25. Because sections of appendix F would be removed, some changes refer to the new location of the requirements. For airplanes type certificated in accordance with the proposed requirements, this change would enable them to be in compliance with the operating rules, while allowing aircraft manufactured under existing type certificates and the current fleet to comply with the old requirements.

Therefore, this proposed rule would impose no retrofit requirements on the current fleet or a production cut-in to aircraft manufactured under existing type certificates. Consequently, these provisions would impose minimal to no cost. Please see the RIA available in the docket for more details.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980, Public Law 96–354, 94 Stat. 1164 (5 U.S.C. 601–612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121, 110 Stat. 857, Mar. 29, 1996) and the Small Business Jobs Act of 2010 (Pub. L. 111–240, 124 Stat. 2504 Sept. 27, 2010), requires Federal agencies to consider the effects of the regulatory action on small business and other small entities and to minimize any significant economic impact. The term ''small entities'' comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

The FAA is publishing this Initial Regulatory Flexibility Analysis (IRFA) to aid the public in commenting on the potential impacts to small entities from this proposal. The FAA invites interested parties to submit data and information regarding the potential economic impact that would result from the proposal. The FAA will consider comments when making a determination or when completing a Final Regulatory Flexibility Analysis.

Under section 603 (b) and (c) of the RFA, an IRFA must contain the following:

(1) A description of the reasons why the action by the agency is being considered;

(2) A succinct statement of the objective of, and legal basis for, the proposed rule;

(3) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;

(4) A description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;

(5) An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule; and

(6) A description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

1. Reasons the Action Is Being Considered

The FAA is issuing this proposal to simplify flammability regulations and provide a higher level of safety for transport category airplanes. The current regulations are complicated, sometimes conflicting, sometimes redundant, occasionally incomplete, and may be obsolete for dealing with present-day proposed airplanes. Simplifying these regulations can lead to cost savings.

A key safety benefit of this proposal is the extension of fire protection requirements to any extensively used material located in inaccessible areas. FAA research found airplanes are at risk due to flammable materials in inaccessible areas. FAA testing has indicated that typical in-service ducts can quickly spread fire from a small fire source in an inaccessible area, while ducts that would meet the new requirement can resist that small size fire and not propagate flames. Also, due to the rapidly increasing number of

[20] Extensively used materials, for the purpose of this rulemaking, means any parts or system of parts that could permit a fire to propagate and grow to a hazardous level, for example, air ducting, electrical wiring/sleeving, thermal/acoustic insulation, and composite fuselage structure.

events due to lithium battery fires, the chances of a lithium battery fire in the cabin getting to an inaccessible area are increasing.

2. Objectives and Legal Basis of the Proposed Rule

The FAA's authority to issue rules on aviation safety is found in title 49 of the United States Code. Subtitle I, section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is issued under the authority described in subtitle VII, part A, subpart III, section 44701, ''General Requirements.'' Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards for the design, material, construction, quality of work, and performance of aircraft that the Administrator finds necessary for safety in air commerce. This proposed regulation is within the scope of that authority. It would revise the safety standards for the flammability characteristics, and thus the design, material, and construction, of transport category airplanes.

3. All Federal Rules That May Duplicate, Overlap, or Conflict

There are no relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule.

4. Description and Estimate of the Number of Small Entities

The FAA used the definition of small entities in the RFA for this analysis. The RFA defines small entities as small businesses, small governmental jurisdictions, or small organizations. In 5 U.S.C. 601(3), the RFA defines ''small business'' to have the same meaning as ''small business concern'' under section 3 of the Small Business Act. The Small Business Act authorizes the Small Business Administration (SBA) to define ''small business'' by issuing regulations.

SBA (2023) has established size standards for various types of economic activities, or industries, under the North American Industry Classification System (NAICS).[21] These size standards generally define small businesses based on the number of employees or annual receipts.

This proposal would affect U.S. manufacturers of part 25 transport category airplanes requesting a new or amended type certificate. According to the small business administration, the size standard for aircraft manufacturers (NAICS code 336411) to be considered a small business is 1,500 employees or less. None of the manufacturers who manufacture transport category airplanes have fewer than 1,500 employees; therefore, none of them are small businesses.

The proposal might also indirectly affect businesses that modify transport category airplanes. At this time, the FAA has not identified any affected small entities without larger U.S. or foreign ownership or business relationships. The FAA requests comments on this finding.

5. Projected Reporting, Recordkeeping, and Other Compliance Requirements

Requirements are governed by 14 CFR part 21 and are not changing with this proposal. Applicants are required to show compliance under § 21.20, and this will continue to apply. Therefore, the proposal would not impose additional reporting, recordkeeping, or other compliance requirements on small entities.

6. Significant Alternatives Considered

The FAA considered two alternatives to the proposed rule. The first alternative was to not make any changes to the fire protection requirements. This would leave in place complicated, sometimes conflicting, sometimes redundant, occasionally incomplete, and potentially obsolete regulations.

Cost savings would not be achieved. This alternative would also not extend fire protection requirements to extensively used materials located in inaccessible areas. This would leave airplanes at risk due to flammability materials in inaccessible areas.

The FAA also considered making only some of the proposed changes; however, this would provide limited benefit and no safety improvement. This is because the significant safety improvements facilitate the significant simplifications in the proposal. Without the safety enhancements, the amount of simplification would be limited. If the FAA proposed only the safety enhancements, the resulting cost would be difficult to quantitatively balance against the resulting safety improvement. The proposal intends to achieve a significant reduction in costs and simplify the requirements, while substantively improving safety.

The FAA expects this proposal would not result in a significant economic impact on a substantial number of small entities.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

The FAA has assessed the potential effect of this proposed rule and determined that it does not exclude imports that meet the safety objective. As a result, this proposed rule is not considered as creating an unnecessary obstacle to foreign commerce.

The proposed rule would impose the same costs and cost savings on domestic and international manufacturers selling airplanes to airlines that wish to operate within the United States because U.S.-registered transport category airplanes must comply with part 25 in order to be operated within the United States.

Therefore, the same cost relief would accrue to all manufacturers selling airplanes to airlines operating within the U.S. However, the effect this proposed rule would have on sales of domestically produced airplanes relative to airplanes produced by foreign companies to airlines operating abroad and not in the U.S. might be either an advantage due to cost savings or a disadvantage due to increased costs, depending on the standards to which foreign airplanes are manufactured.

D. Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) governs the issuance of Federal regulations that require unfunded mandates. An unfunded mandate is a regulation that requires a state, local, or Tribal government or the private sector to incur direct costs without the Federal government having first provided the funds to pay those costs. The FAA determined that the proposed rule will not result in the expenditure of $177,000,000 or more by State, local, or Tribal governments, in the aggregate, or the private sector, in any one year.

[21] Small Business Administration (SBA). 2023. *Table of Size Standards. Effective Mar 17, 2023.* Accessible at *www.sba.gov/document/support--table-size-standards.*

This proposed rule does not contain such a mandate; therefore, the requirements of title II of the Act do not apply.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. The FAA has determined that there would be no new requirement for information collection associated with the previously published NPRM or this SNPRM.

F. International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these proposed regulations.

G. Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5–6.6 and involves no extraordinary circumstances.

IV. Executive Order Determinations

A. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have federalism implications.

B. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Consistent with Executive Order 13175, Consultation and Coordination with Indian Tribal Governments,[22] and FAA Order 1210.20, American Indian and Alaska Native Tribal Consultation Policy and Procedures,[23] the FAA ensures that Federally Recognized Tribes (Tribes) are given the opportunity to provide meaningful and timely input regarding proposed Federal actions that have the potential to affect uniquely or significantly their respective Tribes. At this point, the FAA has not identified any unique or significant effects, environmental or otherwise, on Tribes resulting from this proposed rule.

C. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it would not be a ''significant energy action'' under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

D. International Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609, and has determined that this action would have no effect on international regulatory cooperation.

V. Additional Information

A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Proprietary or Confidential Business Information: Do not file proprietary or confidential business information in the docket. Such information must be sent or delivered directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document, and marked as proprietary or confidential. If submitting information on a disk or CD ROM, mark the outside of the disk or CD ROM, and identify electronically within the disk or CD ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), if the FAA is aware of proprietary information filed with a comment, the agency does not place it in the docket. It is held in a separate file to which the public does not have access, and the FAA places a note in the docket that it has received it. If the FAA receives a request to examine or copy this information, it treats it as any other request under the Freedom of Information Act (5 U.S.C. 552). The FAA processes such a request under Department of Transportation procedures found in 49 CFR part 7.

B. Availability of Rulemaking Documents

An electronic copy of a rulemaking document may be obtained by using the internet—

1. Search the Federal eRulemaking Portal (*www.regulations.gov*);

2. Visit the FAA's Regulations and Policies web page at *www.faa.gov/regulations_policies/;* or

3. Access the Government Printing Office's web page at *www.GovInfo.gov.*

Copies may also be obtained by sending a request (identified by notice or docket number of this rulemaking) to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267–9680.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed from the internet through the Federal eRulemaking Portal referenced in item (1) above.

[22] 65 FR 67249 (Nov. 6, 2000).

[23] FAA Order No. 1210.20 (Jan. 28, 2004), available at *https://www.faa.gov/documentLibrary/media/1210.pdf.*

List of Subjects

14 CFR Part 25

Aircraft, Aviation safety, Navigation (air), Reporting and recordkeeping requirements.

14 CFR Part 27

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 29

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 91

Afghanistan, Agriculture, Air carriers, Air taxis, Air traffic control, Aircraft, Airmen, Airports, Alaska, Aviation safety, Canada, Charter flights, Cuba, Drug traffic control, Ethiopia, Freight, Iraq, Libya, Mexico, Noise control, North Korea, Political candidates, Reporting and recordkeeping requirements, Security measures, Somalia, Syria, Transportation, Yugoslavia.

14 CFR Part 121

Air carriers, Aircraft, Airmen, Alcohol abuse, Aviation safety, Charter flights, Drug abuse, Drug testing, Reporting and recordkeeping requirements, Safety, Transportation.

14 CFR Part 125

Aircraft, Airmen, Aviation Safety, Reporting and recordkeeping requirements.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Alcohol abuse, Aviation Safety, Drug abuse, Drug testing, Reporting and recordkeeping requirements.

The Proposed Amendments

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

■ 1. The authority citation for part 25 continues to read as follows:

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

■ 2. Amend Special Federal Aviation Regulation No. 109 to part 25 by revising paragraphs 12 and 14(e) to read as follows:

Special Federal Aviation Regulation No. 109

* * * * *

12. *Materials for Compartment Interiors.* An applicant must comply with the applicable provisions of § 25.853, except that demonstration of compliance with § 25.853(d)(2) is not required if the applicant can show by test, or a combination of test and analysis, that the maximum time for evacuation of all occupants does not exceed 45 seconds under the conditions specified in appendix J to part 25.

* * * * *

14. * * *

(e) The surfaces of the galley surrounding the cooktop that 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 § 25.853(c)(2)(ii). This requirement is in addition to the flammability requirements typically required of the materials in these galley surfaces. During the selection of these materials, an applicant must account for the flammability characteristics of the materials to ensure these characteristics will not be adversely affected by the use of cleaning agents and utensils used to remove cooking stains.

* * * * *

■ 3. Revise § 25.853 to read as follows:

§ 25.853 Interior parts and components fire protection.

(a) Each airplane part, component, and assembly must protect the airplane and its occupants from in-flight and post-crash fire threats. For the purposes of this section an airplane part, component, or assembly is one that is located within, and including, the fuselage.

(b) Except as provided in paragraph (e) of this section, an applicant must conduct tests to show compliance with paragraphs (c) and (d) of this section. Except as provided in paragraph (c)(1)(ii) of this section, for any tests used to show compliance, the applicant must use a minimum of three specimen sets.

(c) *In-flight requirements.* During an in-flight fire, the flammability characteristics of each part, component, and assembly must not present a hazard to the occupants and must not prevent the continued safe flight and landing of the airplane.

(1) *Accessible areas.*

(i) Each part, component, and assembly that is accessible to the flightcrew during flight must be self-extinguishing when exposed to a small flame.

(ii) Each receptacle used for the disposal of flammable waste material must be fully enclosed, constructed of materials that resist penetration from a small ignition source, and must contain fires likely to occur in it under normal use. At least one test must show the capability of the receptacle to contain those fires under all probable conditions of wear, misalignment, and ventilation expected in service.

(iii) Each ceiling and sidewall liner of a Class B cargo compartment must resist penetration by a small flame.

(2) *Inaccessible areas.*

(i) Each extensively used airplane part, component, and assembly that is not accessible to the flightcrew during flight but that could be subjected to an in-flight fire must not propagate the largest fire that, by itself, would not be a hazard to the airplane.

(ii) Each ceiling and sidewall liner of a Class F cargo compartment, if installed to meet the requirements of § 25.855(b)(2), and of a Class C cargo compartment must resist penetration by a fire within that compartment and must protect the airplane's structure and critical systems from the effects of that fire.

(iii) Each ceiling and sidewall liner of a Class E cargo compartment must resist penetration by a fire within that compartment and must protect the airplane's structure and critical systems from the effects of that fire, unless the design provides a means other than a liner that protects the airplane's structure and critical systems from the effects of that fire.

(iv) The floor liner of any class of cargo compartment, and any ceiling and sidewall liner of a Class E cargo compartment, must resist penetration by a small flame.

(v) All other parts, components, and assemblies that are not accessible by the flightcrew during flight must be self-extinguishing when exposed to a small flame or electrical arc.

(d) *Post-crash requirements.* During a post-crash fuel fire, the flammability characteristics of each part, component, and assembly must maintain survivable cabin conditions for enough time to allow evacuation.

(1) For airplanes with a passenger capacity of 19 or less, each large surface in the passenger cabin must be self-extinguishing when exposed to a small flame for at least 60 seconds.

(2) For airplanes with a passenger capacity of 20 or more, each large surface in the passenger cabin must resist involvement in a post-crash fuel fire that has entered the fuselage, except:

(i) A large surface, no part of which is more than 15″ above the floor, need not comply with paragraph (d)(2) of this section if it is located in such a manner that it would not be directly exposed to the effects of a post-crash fuel fire.

(ii) A large surface in the interior of a compartment other than a cargo or baggage compartment need not comply with paragraph (d)(2) of this section if the interior of the compartment is isolated from the main passenger cabin by doors or equivalent means that would normally be closed during taxi, takeoff, and landing.

(3) Each cushion used to support the occupant of a seat or berth must resist involvement in a post-crash fuel fire that has entered the airplane, and must not propagate that fire.

(4) In addition to resisting involvement in a post-crash fuel fire that has entered the airplane, each flammable metal must be readily extinguishable.

(5) The design must ensure the continued function of all escape systems when those systems are exposed to the effects of radiant heat from a post-crash fuel fire.

(e) *Exceptions.* A part, component, and assembly does not require testing to meet the requirements specified in paragraph (c) or (d) of this section if it meets the criteria of at least one of the following classes:

(1) *Class 1.* Parts, components, and assemblies that would each fit within a cube measuring two inches on each side and are sufficiently separated from the same type of part, component, or assembly such that collectively they will not propagate a fire.

(2) *Class 2.* Parts, components, and assemblies that are not extensively used, are made from materials that are self-extinguishing, do not individually exceed a volume of 113 cubic inches, have an exposed surface area not exceeding 200 square inches, and do not propagate a flame vertically.

(3) *Class 3.* Parts, components, and assemblies that applicants can show, through a method acceptable to the Administrator, are a size, construction, or location that their flammability characteristics do not threaten the airplane or its occupants.

(4) *Class 4.* Parts, components, and assemblies that are essential to the safety of the airplane, its occupants, or the functionality of the airplane and cannot reasonably be constructed of a less flammable material without compromising the integrity or functionality of that part, component, or assembly.

(5) *Class 5.* Parts, components, and assemblies that have successfully met one or more of the alternate requirements, including any applicable conditions, set forth in appendix F to part 25.

(f) *Smoking.*

(1) Smoking is not allowed in lavatories. If smoking is allowed in any area occupied by the crew or passengers, an adequate number of self-contained, removable ashtrays must be provided in designated smoking sections for all seated occupants.

(2) Regardless of whether smoking is allowed in any other part of the airplane, lavatories must have self-contained, removable ashtrays located conspicuously on or near the entry side of each lavatory door, except that one ashtray may serve more than one lavatory door if the ashtray can be seen readily from the cabin side of each lavatory served.

■ 4. Amend § 25.855 by revising paragraphs (c) and (d) to read as follows:

§ 25.855 Cargo or baggage compartments.

* * * * *

(c) Cargo compartment liners must comply with the applicable provisions of § 25.853.

(d) All other materials used in the construction of the cargo or baggage compartment, other than material located entirely within a Class C cargo or baggage compartment, must be self-extinguishing when exposed to a small flame.

* * * * *

■ 5. Revise § 25.856 to read as follows:

§ 25.856 Thermal/Acoustic insulation materials.

(a) All thermal/acoustic insulation material installed in inaccessible areas of the fuselage must comply with § 25.853(c)(2)(i) unless it qualifies for one of the exceptions in § 25.853(e).

(b) For airplanes with a passenger capacity of 20 or more, all thermal/acoustic insulation materials installed in the lower half of the airplane fuselage must resist penetration of a post-crash fuel fire and provide a minimum of 5 minutes survivability in the occupied portions of the airplane, unless the applicant provides an equivalent means of post-crash fire penetration protection. This requirement does not apply to thermal/acoustic insulation installations that the Administrator finds would not contribute to fire penetration resistance. For the purposes of this paragraph, thermal/acoustic insulation materials include the means of fastening the materials to the fuselage.

■ 6. Amend § 25.1713 by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 25.171 3 Fire protection: EWIS.

* * * * *

(c) All insulation on electrical wire and electrical cable, and all materials used to provide additional protection for that wire and cable:

(1) If installed in any area outside of the fuselage, must not propagate the largest fire that, by itself, would not be a hazard to the airplane, and

(2) If installed in any area within the fuselage, must meet the requirements of § 25.853(c), unless it meets the requirements of paragraph (c)(1) of this section.

(d) To show compliance with paragraph (c) of this section, an applicant must conduct tests, unless the applicant can show that the insulation and materials are of a size, location, and quantity that their flammability characteristics do not threaten the airplane or its occupants. For any tests used to show compliance, the applicant must use a minimum of three specimen sets.

■ 7. Revise appendix F to part 25 to read as follows:

Appendix F to Part 25—Flammability Test Hierarchy

Applicants may substitute compliance with the standards in the first row of the table below by meeting the standards in the first column, as indicated at the appropriate intersection, subject to the noted conditions:

Substitution	Standard					
	In-flight accessible; small flame resistance § 25.853 (c)(1)(i)	Post-crash <20; small ignition resistance § 25.853 (d)(1)	In-flight cargo liner; small flame penetration resistance § 25.853 (c)(1)(iii)	In-flight inaccessible; fire propagation § 25.853 (c)(2)(i)	In-flight cargo liner fire penetration resistance § 25.853 (c)(2)(ii)/(iii)	Seat cushion fire resistance § 25.853 (d)(3)
Post-crash <20; small ignition resistance § 25.853(d)(1).	Yes	No	No	No	No	No.
In-flight inaccessible; fire propagation § 25.853(c)(2)(i).	Yes	Yes	No	No	No	No.
Post-crash ≥20; large surface fire resistance § 25.853(d)(2).	Yes	Yes	No	Note 1	No	Note 2.
Seat cushion fire resistance § 25.853(d)(3).	Yes	Yes	No	No	No	No.
Post-crash ≥20; fire penetration resistance § 25.853(b)(2).	Yes	Yes	Yes	No	Yes	No.
In-flight cargo liner fire penetration resistance § 25.853(c)(2)(ii)/(iii).	Yes	Yes	Yes	Note 3	No	No.

Notes:
[1] When the facesheet on the back (inaccessible) side of the large surface is of the same material system as the facesheet on the front side.
[2] When the cushion does not directly support the occupant and can be tested in its actual thickness.
[3] When the back side of the liner is made from glass fiber reinforced epoxy and phenolic resin.

PART 27—AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT

■ 8. The authority citation for part 27 continues to read as follows:

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

■ 9. Amend § 27.1365 by revising paragraph (c) to read as follows:

§ 27.1365 Electric cables.

* * * * *

(c) Insulation on electrical wire and cable installed in the rotorcraft must be self-extinguishing when tested in accordance with appendix F, part I(a)(3), of part 25 of this chapter at amendment 25–138.

PART 29—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY ROTORCRAFT

■ 10. The authority citation for part 29 continues to read as follows:

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

■ 11. Amend § 29.853 by revising paragraphs (a) and (b) to read as follows:

§ 29.853 Compartment interiors.

* * * * *

(a) The materials (including finishes or decorative surfaces applied to the materials) must meet the following test criteria as applicable:

(1) Interior ceiling panels, interior wall panels, partitions, galley structure, large cabinet walls, structural flooring, and materials used in the construction of stowage compartments (other than underseat stowage compartments and compartments for stowing small items such as magazines and maps) must be self-extinguishing when tested vertically in accordance with the applicable portions of appendix F to part 25 of this chapter at amendment 25–138, or other approved equivalent methods.

(2) Floor covering, textiles (including draperies and upholstery), seat cushions, padding, decorative and non-decorative coated fabrics, leather, trays and galley furnishings, electrical conduit, thermal and acoustical insulation and insulation covering, air ducting joint and edge covering, cargo compartment liners, insulation blankets, cargo covers, and transparencies, molded and thermoformed parts, air ducting joints, and trim strips (decorative and chafing) that are constructed of materials not covered in paragraph (a)(3) of this section, must be self-extinguishing when tested vertically in accordance with the applicable portion of appendix F to part 25 of this chapter at amendment 25–138, or other approved equivalent methods.

(3) Acrylic windows and signs, parts constructed in whole or in part of elasto-metric materials, edge lighted instrument assemblies consisting of two or more instruments in a common housing, seat belts, shoulder harnesses, and cargo and baggage tiedown equipment, including containers, bins, pallets, etc., used in passenger or crew compartments, may not have an average burn rate greater than 2.5 inches per minute when tested horizontally in accordance with the applicable portions of appendix F to part 25 of this chapter at amendment 25–138, or other equivalent methods that the Administrator approves.

(4) Except for electrical wire and cable insulation, and for small parts (such as knobs, handles, rollers, fasteners, clips, grommets, rub strips, pulleys, and small electrical parts) that the Administrator finds would not contribute significantly to the propagation of a fire, materials in items not specified in paragraph (a)(1), (2), or (3) of this section may not have a burn rate greater than 4 inches per minute when tested horizontally in accordance with the applicable portions of appendix F to part 25 of this chapter at amendment 25–138, or other equivalent methods that the Administrator approves.

(b) In addition to meeting the requirements of paragraph (a)(2) of this section, seat cushions, except those on flight crewmember seats, must meet the test requirements of part II of appendix F to part 25 of this chapter at amendment 25–138, or equivalent.

* * * * *

■ 12. Amend § 29.1359 by revising paragraph (c) to read as follows:

§ 29.1359 Electrical system fire and smoke protection.

* * * * *

(c) Insulation on electrical wire and cable installed in the rotorcraft must be self-extinguishing when tested in accordance with appendix F, part I(a)(3), of part 25 of this chapter at amendment 25–138.

PART 91—GENERAL OPERATING AND FLIGHT RULES

■ 13. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40101, 40103, 40105, 40113, 40120, 44101, 44111,

44701, 44704, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, 47534, Pub. L. 114–190, 130 Stat. 615 (49 U.S.C. 44703 note); articles 12 and 29 of the Convention on International Civil Aviation (61 Stat. 1180), (126 Stat. 11).

■ 14. Amend § 91.613 by revising paragraphs (b)(1) introductory text and (b)(2) to read as follows:

§ 91.613 Materials for compartment interiors.

* * * * *

(b) * * *

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after September 2, 2005, the insulation must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended, if it is:

* * * * *

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended.

PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS

■ 15. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40103, 40113, 40119, 41706, 42301 preceding note added by Pub. L. 112–95, sec. 412, 126 Stat. 89, 44101, 44701–44702, 44705, 44709–44711, 44713, 44716–44717, 44722, 44729, 44732; 46105; Pub. L. 111–216, 124 Stat. 2348 (49 U.S.C. 44701 note); Pub. L. 112–95, 126 Stat 62 (49 U.S.C. 44732 note); Pub. L. 115–254; 132 Stat. 3186 (49. U.S.C. 44701 note).

■ 16. Amend § 121.312 by revising paragraphs (b) introductory text, (e)(1) introductory text, and paragraphs (e)(2) and (3) to read as follows:

§ 121.312 Materials for compartment interiors.

* * * * *

(b) *Seat cushions.* Seat cushions, except those on flight crewmember seats, in each compartment occupied by crew or passengers, must comply with the requirements pertaining to seat cushions in § 25.853(c) effective on November 26, 1984, or in § 25.853(d) effective on [EFFECTIVE DATE OF FINAL RULE] or as subsequently amended, on each airplane as follows:

* * * * *

(e) * * *

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after September 2, 2005, the insulation must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended, if it is:

* * * * *

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended.

(3) For airplanes with a passenger capacity of 20 or greater, manufactured after September 2, 2009, thermal/acoustic insulation materials installed in the lower half of the fuselage must meet the flame penetration resistance requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended. If the airplane's type design was approved based on a finding of equivalent level of safety to § 25.856 in accordance with § 21.21(b)(1) of this chapter, the certificate holder is in compliance with this section of this part as long as the aircraft conforms to the approved type design.

■ 17. Amend § 121.314 by revising paragraph (a)(2) to read as follows:

§ 121.314 Cargo and baggage compartments.

* * * * *

(a) * * *

(2) Materials that meet the test requirements of part 25, appendix F, part III of this chapter effective on June 16, 1986, or the test requirements of § 25.853(c)(2)(ii) of this chapter effective on [EFFECTIVE DATE OF FINAL RULE] or as subsequently amended; or

* * * * *

■ 18. Revise appendix L to part 121 to read as follows:

Appendix L to Part 121—Type Certification Regulations Made Previously Effective

(a) Appendix L lists regulations in this part that require compliance with standards contained in superseded type certification regulations that continue to apply to certain transport category airplanes. The table below sets out citations to the current CFR section, applicable aircraft, superseded type certification regulation and applicable time periods, and the CFR edition and **Federal Register** documents where the regulation having prior effect is found. Copies of all superseded regulations may be obtained at the Federal Aviation Administration Law Library, Room 924, 800 Independence Avenue SW, Washington, DC.

Part 121 section	Applicable aircraft	Provisions: CFR/FR references
§ 121.312(a)(1)(i)	Transport category; or nontransport category type certificated before January 1, 1965; passenger capacity of 20 or more; manufactured prior to August 20, 1990.	Heat release rate testing. 14 CFR 25.853(d)(2) effective [effective date of final rule]: 14 CFR parts 1 to 59, Revised as of January 1, [**Federal Register** revision year], and amended by Amdt. [amendment level and **Federal Register** citation and publication date of final rule]. Formerly 14 CFR 25.853(d) effective March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995, and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) effective August 20, 1986: 14 CFR parts 1 to 59, Revised as of January 1, 1986.

Part 121 section	Applicable aircraft	Provisions: CFR/FR references
§ 121.312(a)(1)(ii)	Transport category; or nontransport category type certificated before January 1, 1965; passenger capacity of 20 or more; manufactured after August 19, 1990.	Heat release rate testing. 14 CFR 25.853(d)(2) effective [effective date of final rule]: 14 CFR parts 1 to 59, Revised as of January 1, [**Federal Register** revision year], and amended by Amdt. [amendment level and **Federal Register** citation and publication date of the final rule]. Formerly 14 CFR 25.853(d) effective March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995, and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) effective September 26, 1988: 14 CFR parts 1 to 59, Revised as of January 1, 1988, and amended by Amdt. 25–66, 53 FR 32584, August 25, 1988. Smoke testing. 14 CFR 25.853(d) effective March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995, and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) effective September 26, 1988: 14 CFR parts 1 to 59, Revised as of January 1, 1988, and amended by Amdt. 25–66, 53 FR 32584, August 25, 1988.
§ 121.312(a)(2)(i)	Transport category; or nontransport category type certificate before January 1, 1965; application for type certificate filed prior to May 1, 1972; substantially complete replacement of cabin interior on or after May 1, 1972.	Provisions of 14 CFR 25.853 in effect on April 30, 1972: 14 CFR parts 1 to 59, Revised as of January 1, 1972.
§ 121.312(a)(3)(i)	Transport category type certificated after January 1, 1958; nontransport category type certificated after January 1, 1958, but before January 1, 1965; passenger capacity of 20 or more; substantially complete replacement of the cabin interior on or after March 6, 1995.	Heat release rate testing. 14 CFR 25.853(d) in effect March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995; and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) in effect August 20, 1986: 14 CFR parts 1 to 59, Revised as of January 1, 1986.
§ 121.312(a)(3)(ii)	Transport category type certificated after January 1, 1958; nontransport category type certificated after January 1, 1958, but before January 1, 1965; passenger capacity of 20 or more; substantially complete replacement of the cabin interior on or after August 20, 1990.	Heat release rate testing. 14 CFR 25.853(d)(2) effective [effective date of the final rule]: 14 CFR parts 1 to 59, Revised as of January 1, [**Federal Register** revision year], and amended by Amdt. [amendment level and **Federal Register** citation and publication date of the final rule]. Formerly 14 CFR 25.853(d) effective March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995, and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) effective September 26, 1988: 14 CFR parts 1 to 59, Revised as of January 1, 1988, and amended by Amdt. 25–66, 53 FR 32584, August 25, 1988. Smoke testing. 14 CFR 25.853(d) effective March 6, 1995; 14 CFR parts 1 to 59, Revised as of January 1, 1995; and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a–1) effective September 26, 1988: 14 CFR parts 1 to 59, Revised as of January 1, 1988, and amended by Amdt. 25–66, 53 FR 32584, August 25, 1988.
§ 121.312(b)(1) and (2)	Transport category airplane type certificated after January 1, 1958; nontransport category airplane type certificated after December 31, 1964.	Seat cushions. 14 CFR 25.853(d)(3) effective [effective date of the final rule]: 14 CFR parts 1 to 59, Revised as of January 1, [**Federal Register** revision year], and amended by Amdt. [amendment level and **Federal Register** citation and publication date of the final rule]. Formerly 14 CFR 25.853(c) effective November 26, 1984: 14 CFR parts 1 to 59, Revised as of January 1, 1984, and amended by Amdt. 25–59, 49 FR 43188, October 26, 1984.
§ 121.312(c)	Airplane type certificated in accordance with SFAR No. 41; maximum certificated takeoff weight in excess of 12,500 pounds.	Compartment interior requirements. 14 CFR 25.853(a) in effect March 6, 1995: 14 CFR parts 1 to 59, Revised as of January 1, 1995, and amended by Amdt. 25–83, 60 FR 6623, February 2, 1995. Formerly 14 CFR 25.853(a), (b–1), (b–2), and (b–3) in effect on September 26, 1978: 14 CFR parts 1 to 59, Revised as of January 1, 1978.
§ 121.314(a)	Transport category airplanes type certificated after January 1, 1958.	Class C or D cargo or baggage compartment definition. 14 CFR 25.853(c)(2)(ii) effective [the effective date of the final rule] (part III of appendix F no longer exists): 14 CFR parts 1 to 59, Revised as of January 1, [**Federal Register** revision year], and amended by Amdt. [amendment level and **Federal Register** citation and publication date of the final rule]. Formerly 14 CFR 25.857 effective June 16, 1986, 14 CFR parts 1 to 59, Revised January 1, 1997, and amended by Amdt. 25–60, 51 FR 18243, May 16, 1986.

(b) For the purposes of compliance with the sections of 14 CFR part 25 referenced in the table in paragraph (a) of this appendix, findings of equivalent level of safety in accordance with § 21.21(b)(1) of this chapter are considered to satisfy the referenced requirement.

PART 125—CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE; AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

■ 19. The authority citation for part 125 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 44701–44702, 44705, 44710–44711, 44713, 44716–44717, 44722.

■ 20. Amend § 125.113 by revising paragraphs (c)(1) introductory text and paragraph (c)(2) to read as follows:

§ 125.113 Cabin interiors.

* * * * *

(c) * * *

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after September 2, 2005, the insulation must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended, if it is:

* * * * *

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended.

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

■ 21. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 41706, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722, 44730, 45101–45105; Pub. L. 112–95, 126 Stat. 58 (49 U.S.C. 44730).

■ 22. Amend § 135.169 by revising paragraph (d)(1)(ii) to read as follows:

§ 135.169 Additional airworthiness requirements.

* * * * *

(d) * * *

(1) * * *

(ii) Materials that meet the test requirements of part 25, appendix F, part III of this chapter effective on June 16, 1986, or the test requirements of § 25.853(c)(2)(ii) of this chapter effective on [EFFECTIVE DATE OF FINAL RULE] or as subsequently amended; or

* * * * *

■ 23. Amend § 135.170 by revising paragraphs (b)(2), (c)(1) introductory text, and paragraph (c)(2) to read as follows:

§ 135.170 Materials for compartment interiors.

* * * * *

(b) * * *

(2) For airplanes type certificated after January 1, 1958, seat cushions, except those on flight crewmember seats, in any compartment occupied by crew or passengers must comply with the requirements pertaining to fire protection of seat cushions in § 25.853(c) effective November 26, 1984, or in § 25.853(d) effective on [EFFECTIVE DATE OF FINAL RULE] or as subsequently amended.

(c) * * *

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after September 2, 2005, the insulation must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended, if it is:

* * * * *

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of § 25.856 of this chapter, effective September 2, 2003 or as subsequently amended.

Issued under authority provided by 49 U.S.C. 106(f), 44701(a), and 44703 in Washington, DC.

Lirio Liu,

Executive Director, Aircraft Certification Service.

[FR Doc. 2023–16877 Filed 8–16–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–1711; Project Identifier MCAI–2023–00093–T]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus SAS Model A318–112 airplanes; Model A319–115, –132, –133, –151N, –153N, and –171N airplanes; Model A320–211, –212, –214, –231, –232, –251N, –252N, –253N, –271N, –272N, and –273N airplanes; and Model A321–112 airplanes. This proposed AD was prompted by a report that the fatigue life limit of the motoreductor installed on the on-board entrance stairs, is not demonstrated for the complete airplane design service goal (DSG). This proposed AD would require repetitive replacement of the motoreductor for on-board entrance stairs, and limit the installation of affected parts under certain conditions, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by October 2, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *regulations.gov*. Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2023–1711; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For material that is proposed for IBR in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu;* website *easa.europa.eu.* You may find this material on the EASA website at *ad.easa.europa.eu.* It is also available at *regulations.gov* under Docket No. FAA–2023–1711.