

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

DEPARTMENT OF AIRWORTHINESS

JUSTIFICATION

Sectoral Consultation – Revision A of IS No. 20-135, titled “Acceptable Methods for Showing Compliance with Fire Containment Requirements in Propulsion Systems”

1. INTRODUCTION

1.1. *This justification outlines the rationale behind the proposal by the National Civil Aviation Agency (Anac) to issue Supplemental Instruction (IS) No. 20-135, titled “Acceptable Methods for Showing Compliance with Fire Containment Requirements in Propulsion Systems.”*

2. TECHNICAL BACKGROUND

2.1. Legal Basis

2.1.1. *Article 66 of Law No. 7,565, dated December 19, 1986 (Brazilian Aeronautical Code – CBA), establishes that the aviation authority is responsible for promoting flight safety and shall define the minimum safety standards applicable to the design, materials, workmanship, construction, and performance of aircraft, engines of aircraft, propellers, and other aeronautical components.*

2.1.2. *In accordance with item XXXIII of Article 8 of Law No. 11,182, dated September 27, 2005, Anac is authorized to issue, validate, or recognize the certification of civil-use aeronautical products and processes, in compliance with the standards and regulations established by the Agency.*

2.1.3. *Parts 23, 25, and 33 of the Brazilian Civil Aviation Regulations (RBAC) require that aircraft manufacturers demonstrate that certain components of their propulsion systems (including engines and auxiliary power units (APUs), as well as their installation in aircraft) are fire-resistant or fireproof. However, the regulations issued by the Agency do not specify detailed methods, techniques, equipment, or criteria for how such demonstrations must be conducted.*

2.1.4. *Supplemental Instruction (IS) No. 20-135 aims to provide guidance and standardized methods for manufacturers to demonstrate compliance with fire protection requirements applicable to materials installed in propulsion systems. This IS formalizes the adoption by Anac of SAE International Standard AS6826 as an acceptable means of compliance.*

2.1.5. *In this regard, Article 14 of Anac Resolution No. 30, dated May 21, 2008—which established the RBACs and ISs and set forth criteria for their development—provides in §1, as amended by Anac Resolution No. 162 of July 20, 2010, that an applicant seeking to demonstrate compliance with a requirement set forth in an RBAC/RBHA may adopt the means and procedures specified in an IS or submit an alternative means or procedure, duly justified, subject to review and express approval by the competent authority within ANAC.*

2.1.6. *Furthermore, §2 of Article 14 of the aforementioned Resolution states that any alternative means or procedure must ensure a level of safety equal to or greater than that established by the applicable requirement or must achieve the intended objective of the standardized procedure described in the IS.*

2.1.7. *Additionally, §3 of Article 14 clarifies that an IS shall not create requirements or contradict those established in an RBAC or another regulatory instrument.*

2.2. Description and Justification of the Proposed Guidance Material

2.2.1. *In the context where fire tests are required to simulate the likely fire environment within the engine or APU, in order to demonstrate that materials and components will provide the necessary containment to meet applicable requirements when exposed to a fire event during operation, the rationale for proposing this IS is primarily based on the existence of multiple guidance materials for fire testing. These materials occasionally result in variations in test execution and approval criteria. Therefore, there is an opportunity for standard AS6826 to offer aircraft and engine manufacturers consolidated, harmonized,*

and modern methodologies that may be considered acceptable means of compliance by civil aviation authorities (CAAs) worldwide for meeting the applicable propulsion system requirements.

2.2.2. In 2018, the FAA requested that SAE International develop a new standard to complement Advisory Circular (AC) 20-135. As a result, a dedicated SAE committee was formed, including representatives from CAAs and aircraft and engine manufacturers. The AS6826 standard was subsequently developed based on AC 20-135, representing a significant evolution of the latter. It incorporates insights from successful certification programs and international best practices in aviation safety.

2.2.3. SAE AS6826 is a newly developed aerospace standard that provides regulated entities with fire test methodologies that have been recognized as acceptable means of compliance by several civil aviation authorities (CAAs), including the FAA, Easa, TCCA, and Anac. These methodologies are intended to support compliance with applicable fire protection requirements for propulsion systems.

2.2.4. Following the publication of IS No. 20-135, aircraft and engine manufacturers seeking certification in Brazil will be able to use SAE AS6826 as an acceptable means of demonstrating compliance with applicable fire protection requirements. The purpose of IS 20-135 is to formalize this understanding and address the following issues:

a) **Lack of Consolidation:** Currently, relevant information is dispersed across multiple regulatory documents issued by different institutions, making it difficult for stakeholders to access comprehensive guidance in a single source.

b) **Perceived Non-Mandatory Nature:** Some regulated entities have argued that AS6826 is not an official document issued by the Agency and therefore is not binding, leading to inconsistent application of its methodologies.

c) **Absence of Anac-Specific Guidance:** The lack of a dedicated regulatory document issued by Anac prevents the Agency from tailoring fire test methodologies to reflect the interpretations and expectations of the Superintendency of Airworthiness (SAR), thereby limiting regulatory autonomy.

2.3. **Target Audience for the Industry Consultation**

2.3.1. This sectoral consultation is open to all individuals and legal entities interested in contributing to the subject matter. However, it is specifically directed toward stakeholders directly impacted by the proposed IS, including:

2.3.1.1. Industry representative associations;

2.3.1.2. Aircraft and engine manufacturers; and

2.3.1.3. The general public.

2.4. **Invitation to Participate**

2.4.1. All interested parties are invited to participate in this Sectoral Consultation process by submitting written comments to Anac that may include data, suggestions, and viewpoints, along with supporting rationale. For this revision, it is expected that affected stakeholders will identify any potential gaps or specific situations not previously addressed and propose improvements or corrections to the draft text.

2.4.2. Comments regarding the proposed content of the draft Supplemental Instruction (IS) must be submitted via the designated electronic form available at: <https://www.gov.br/anac/pt-br/acao-a-informacao/participacao-social/consultas-setoriais/consultas-em-andamento> within **30 (thirty) calendar days** from the date of publication of the corresponding Sectoral Consultation Notice.

2.4.3. All comments received within the consultation period will be reviewed by Anac, and the final version of the proposed IS may be modified based on the analysis of the contributions received.

2.4.4. Submitted comments will be published on Anac's website within 10 (ten) business days following the close of the consultation period. The Contribution Analysis Report (RAC), prepared by the Department of Airworthiness (SAR), will be made available on Anac's website within 30 (thirty) business days after the final deliberation on the matter.

2.4.5. Please note that contributions addressing topics not directly related to this revision will only be considered if they pertain to minor or isolated changes. Contributions outside the scope of this

consultation that require further analysis will be registered for future consideration.

2.4.6. *In addition to the draft IS submitted for this consultation, the corresponding regulatory processes may also be accessed through the Public Search of Processes and Documents at: <https://www.gov.br/anac/pt-br/sistemas/protocolo-eletronico-sei/pesquisa-publica-de-processos-e-documentos>, by referencing Anac SEI **Process No. 00066.009070/2025-25**.*



Documento assinado eletronicamente por **Rafael Ximenes Borges, Coordenador de Normas de Aeronavegabilidade - CNORMA**, em 11/09/2025, às 14:15, conforme horário oficial de Brasília, com fundamento no art. 4º, do [Decreto nº 10.543, de 13 de novembro de 2020](#).



A autenticidade deste documento pode ser conferida no site <https://sei.anac.gov.br/sei/autenticidade>, informando o código verificador **12045090** e o código CRC **D76D3DCD**.
