

AVIATION SPECIFICATIONS 3 VERIFICATION BODY

EFFECTIVE DATE: 1 JANUARY 2023

REVISION NO: 0

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1 Introduction

- 1.1 These Aviation Specifications 3 – Verification Body (“AS-3”) specifies the requirements that a person must meet in order to be appointed as a verification body under the Air Navigation (Carbon Emissions and Reporting) Regulations 2022 (“CORSA ANR”).
- 1.2 This AS-3 is issued by the Director -General of Civil Aviation (“DGCA”).

2 Definitions

- 2.1 Any term in this AS-3 that is defined in the First Schedule of the Air Navigation (91 — General Operating Rules) Regulations 2018 has the meaning given to that term in that Schedule unless the term is otherwise defined in the First Schedule of the CORSA ANR or the Appendix 1 to this AS-3.

3 Accreditation

- 3.1 A verification body must not be appointed by a registered primary Singapore operator (called in this AS-3 the relevant operator) unless the verification body is accredited to ISO 14065:2020 and meets the additional requirements of a national accreditation body in accordance with ISO/IEC 17011.
- 3.2 The verification body must conduct the verification in accordance with ISO 14064-3:2019 and the additional requirements

4 Additional Requirements

4.1 Avoidance of conflict of interest

- (a) A person must not lead a verification team of a verification body to conduct any verification for a relevant operator for a period of 3 consecutive years if that person had, in the previous 6 consecutive reporting periods, whether immediately prior to or after the commencement of the CORSA ANR, conducted and completed a verification for that same eligible primary registered Singapore operator.
- (b) A relevant operator must not appoint, as a verification body, any verification body that:
 - (1) is owned by that relevant operator, or in which the relevant operator has a controlling interest;
 - (2) owns, or has a controlling interest in, that relevant operator; or
 - (3) is a subsidiary of that relevant operator; or
 - (4) shares common management or personnel, resources, finances, or contracts or marketing with that relevant operator.

- (c) The verification body must be independent from bodies that trade emission units.
- (d) The relevant operator must not delegate any of its responsibilities under the CORSIA ANR with regard to the preparation of the emissions monitoring plan or the enhanced emissions report, including the monitoring of fuel use and the calculation of CO₂ emissions, to the verification body.
- (e) The verification body must document how it relates to other parts of the same legal entity for the accreditation body to conduct an assessment of impartiality and independence of the verification body.

4.2 Management and personnel

- (a) The verification body must establish, implement and document a method for evaluating the competence of the verification team's personnel against the competence requirements outlined in ISO 14065:2020, ISO 14066:2011 and paragraphs 4.3, 4.4 and 4.5 of this Part.
- (b) The verification body must maintain records to demonstrate the competency of the verification team's personnel in accordance with paragraph 4.3 of this Part.
- (c) The verification body must engage an independent reviewer who –
 - (1) must not be involved in any verification activity;
 - (2) is responsible for assessing the verification body's internal documentation on the conduct of verification activities;
 - (3) must review the verification report prepared by the verification body under the CORSIA ANR prior to the submission of that report to the Singapore operator.

4.3 Competences of personnel

- (a) The verification body must ensure that —
 - (1) competent persons are identified and selected to form a verification team for each engagement;
 - (2) the composition of each verification team is appropriate for the engagement;
 - (3) that the verification, at a minimum, includes a team leader who is responsible for engagement planning and the management of the team;
 - (4) the continuing competence of all verification personnel conducting verification activities, including continual professional development and training for verification personnel to maintain and develop competencies; and
 - (5) regular evaluations of the competence assessment process are conducted to ensure that the process continues to be relevant to the CORSIA ANR.

4.4 Validation or verification team knowledge

- (a) The verification team and the independent reviewer, must demonstrate knowledge of —
 - (1) the requirements in —
 - (i) the CORSIA ANR;
 - (ii) the ICAO Annex 16 Volume IV;
 - (iii) the ICAO Assembly Resolution A39-3;
 - (iv) the Environmental Technical Manual (Doc 9501), Volume IV – Procedures for Demonstrating Compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA); and
 - (v) any public ICAO explanatory material;
 - (2) the verification requirements in —
 - (i) the CORSIA ANR;
 - (ii) the ICAO Annex 16 Volume IV; and
 - (iii) the Environmental Technical Manual (Doc 9501), Volume IV – Procedures for Demonstrating Compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), including materiality threshold, verification criteria, verification scope and objectives of the verification report preparation and submission requirements;
 - (3) the eligibility criteria for scope of applicability, State pair phrase-in rules and State pair coverage, as outlined in the ICAO Annex 16 Volume IV and the Assembly Regulation A39-3; and
 - (4) the monitoring requirements in the CORSIA ANR.

4.5 Validation or verification team technical expertise

- (a) The verification team, as a whole, and the independent reviewer, must demonstrate knowledge in the following technical competencies:
 - (1) general technical processes in the field of civil aviation;
 - (2) aviation fuel (including sustainable aviation fuel) and their characteristics;
 - (3) fuel-related processes, including flight planning and fuel calculations;
 - (4) CO₂ emissions quantification methodologies as outlined in the ICAO Annex 16 Volume IV, including assessment of emissions monitoring plans;
 - (5) fuel use monitoring and measurement devices, and related procedures for monitoring of fuel use related to greenhouse gas emissions, including procedures and practices for operation, maintenance and calibration of fuel use measurement devices;

- (6) greenhouse gas information and data management systems and controls, including quality management systems, and quality assurance and quality control techniques;
 - (7) aviation-related IT systems such as flight planning software or operational management systems.
- (b) Evidence of the above competencies must include previous, direct professional experience in a technical capacity within the aviation sector, complemented by appropriate training and education credentials.

4.6 Validation or verification team data and information auditing

- (a) The verification team, as a whole, must demonstrate detailed knowledge of ISO 14064-3:2019, including —
- (1) a demonstrated ability to develop a risk-based verification approach;
 - (2) performing verification procedures, including assessing data and information systems and controls;
 - (3) collecting sufficient and appropriate evidence; and
 - (4) drawing conclusions based on that evidence.
- (b) Evidence of data and information auditing expertise and competencies must include previous professional experience in auditing and assurance activities, complemented by appropriate training and education credentials.

4.7 Use of contracted validators and verifiers

- (a) The verification body must document roles and responsibilities of the verification personnel, including contracted persons involved in the verification activity.

4.8 Outsourcing

- (a) The verification body must not outsource the final decision on the verification and the issuance of the verification statement.
- (b) The independent review may only be outsourced if the outsourced service is appropriate, competent and covered by the accreditation.

4.9 Confidentiality

- (a) The verification body must ensure that it has the express consent of the relevant operator prior to the submission of the verified enhanced emissions report, and the verification report, to the Director-General of Civil Aviation.
- (b) The manner in which the consent mentioned in sub-paragraph (a) is to be obtained must be specified in the contract between the verification body and the relevant operator.

4.10 Records

- (a) The verification body must keep records on the verification process, including records of the following —
- (1) the relevant operator's emissions monitoring plan and enhanced emissions report;

- (2) the verification report and any related internal documentation;
 - (3) identification of verification team members and criteria for selection of verification team; and
 - (4) working papers with data and information reviewed by the verification team in order to allow for an independent party to assess the quality of the verification activities and conformance with verification requirements.
- (b) The records mentioned in sub-paragraph (a) must be kept for a period of at least 10 years commencing from the date the record was created.

4.11 Agreement

- (a) The contract between a verification body and a relevant operator must specify the conditions for verification by stating —
- (1) the scope of verification, verification objectives, level of assurance, materiality threshold, and relevant verification standards (ISO 14065, ISO 14064-3, the relevant requirements of the CORSIA ANR and the Environment Technical Manual);
 - (2) the amount of time allocated for verification;
 - (3) the flexibility to change the amount of time allocated to each engagement if necessary due to findings during the verification;
 - (4) conditions that have to be fulfilled to conduct the verification, including access to all relevant documents, personnel and premises;
 - (5) the agreement of the relevant operator to an audit of the verification process that may be conducted by the national accreditation body's assessors;
 - (6) the agreement of the relevant operator to authorise the release of the enhanced emissions report and the verification report by the verification body to the Director-General of Civil Aviation; and
 - (7) liability coverage.

Appendix 1 Definitions

“ISO 14064-3:2019” means the 2019 edition of the publication ISO 14064, Greenhouse gases – Part 3 Specifications with guidance for the validation and verification of greenhouse gas assertions, published by the International Organization for Standardization.

“ISO 14065:2020” means the 2020 edition of the publication ISO 14065, Greenhouse gases – requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition, published by the International Organization for Standardization.

“ISO 14066:2011” means the 2011 edition of the publication ISO 14066, Greenhouse gases - Competence requirements for greenhouse gas validation teams and verification teams, published by the International Organization for Standardization.

AS-3 Verification Body

“ISO/IEC 17011:2017” means the 2017 edition of the publication ISO/IEC 17011, Conformity assessment -- General requirements for accreditation bodies accrediting conformity assessment bodies, published by the International Organization for Standardization.