Brunei Department of Civil Aviation

Brunei Darussalam

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Brunei Aviation Requirements

BAR 16 – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

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INTRODUCTION

The Council, during its 214th session in June 2018, adopted Annex 16, Volume IV to the Convention on International Civil Aviation, which contains Standards and Recommended Practices (SARPs) for the implementation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). The applicability date of the Annex 16, Volume IV is 1 January 2019.

This BAR draws upon Annex 16, Volume IV and ICAO Doc 9501, *Environmental Technical Manual (ETM)*, Volume IV – *Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)*. These requirements do not intend to expand upon, nor lessen, any requirements included in Annex 16, Volume IV for the implementation of CORSIA.

Specifically, the requirements presented herewith **cover CORSIA's administrative requirements, as well as MRV requirements including: Emissions Monitoring Plan and CO_2 emissions monitoring requirements; reporting of CO_2 emissions and Emissions Report, as well as verification requirements.**

These Requirements **do not cover requirements related to offsetting requirements and emissions units, applicable from 2021.**

DEFINITIONS

***Administrative partnership*.** Delegation of administering tasks in these Requirements from one State to another State(s).

***Aerodrome*.** A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

***Aerodrome pair*.** A group of two aerodromes composed of a departing aerodrome and an arrival aerodrome.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aeroplane owner. Person(s), organization(s) or enterprise(s) identified via Item 4 (Name of owner) and Item 5 (Address of owner) on the certificate of registration of an aeroplane.

***Air operator certificate (AOC)*.** A certificate authorizing an operator to carry out specified commercial air transport operations.

Conversion process. A type of technology used to convert a feedstock into aviation fuel.

CORSIA eligible fuel. A CORSIA sustainable aviation fuel or a CORSIA lower carbon aviation fuel, which an operator may use to reduce their offsetting requirements.

CORSIA lower carbon aviation fuel. A fossil-based aviation fuel that meets the CORSIA Sustainability Criteria under this Volume.

CORSIA sustainable aviation fuel. A renewable or waste-derived aviation fuel that meets the CORSIA Sustainability Criteria under these Requirements.

Feedstock. A type of unprocessed raw material used for the production of aviation fuel.

***Flight plan*.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Fuel uplift. Measurement of fuel provided by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight (in litre).

Great Circle Distance. The shortest distance, rounded to the nearest kilometre, between the origin and the destination aerodromes, measured over the earth's surface modelled according to the World Geodetic System 1984 (WGS84).

Note. – Latitude and longitude coordinates of aerodromes can be obtained from the ICAO Location Indicators database.

National accreditation body. A body authorized by a State which attests that a verification body is competent to provide specific verification services.

***New entrant*.** Any aeroplane operator that commences an aviation activity falling within the scope of this Volume on or after its entry into force and whose activity is not in whole or in part a continuation of an aviation activity previously performed by another aeroplane operator.

Notifying State. The State that has submitted to ICAO the request for the registration of or change in the three-letter designator of an aeroplane operator over which it has jurisdiction.

Operator**.** The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Pathway. A specific combination of feedstock and conversion process used for the production of aviation fuel.

Reporting period**.** A period which commences on 1 January and finishes on 31 December in a given year for which an aeroplane operator or State reports required information. The flight departure time (UTC) determines which reporting period a flight belongs to.

State pair**.** A group of two States composed of a departing State or its territories and an arrival State or its territories.

Verification of report. An independent, systematic and sufficiently documented evaluation process of an emissions report and, when required, a cancellation of eligible emissions units report.

Verification body**.** A legal entity that performs the verification of an Emissions Report and, when required, an Emissions Unit Cancellation Report, as an accredited independent third party.

Verification team. A group of verifiers, or a single verifier that also qualifies as a team leader, belonging to a verification body conducting the verification of an Emissions Report and, when required, an Emissions Unit Cancellation Report. The team can be supported by technical experts.

Verification report. A document, drafted by the verification body, containing the verification statement and required supporting information

CHAPTER 1 — GENERAL PROVISIONS

APPLICABILITY

1.1. This Chapter shall be applicable to an aeroplane operator attributed to BRUNEI according to the approach in 1.2.

ATTRIBUTION OF AN AEROPLANE OPERATOR TO BRUNEI

1.2. The aeroplane operator is considered attributed to BRUNEI under this Requirement in the following cases:

(a) Where the aeroplane operator has an International Civil Aviation Organization (ICAO) Designator, which is notified by BRUNEI;

(b) Where the aeroplane operator does not possess an ICAO Designator, but has a valid air operator certificate (or equivalent) issued by BRUNEI; or

(c) Where the aeroplane operator does not possess an ICAO Designator or air operator certificate, but is registered as juridical person in BRUNEI. This also applies where the aeroplane operator is a natural person having residence and registration in BRUNEI.

1.3. If the aeroplane operator changes its ICAO Designator, AOC (or equivalent) or place of juridical registration, and is subsequently attributed to a new State, but it is not establishing a new entity or a subsidiary, then this State becomes the State to which the aeroplane operator fulfills its requirements under CORSIA at the start of the next compliance period.

1.4. BRUNEI DCA shall ensure the correct attribution of an aeroplane operator according to the approach in 1.2.

1.5. The aeroplane operator with a wholly owned subsidiary aeroplane operator that is legally registered in BRUNEI can be treated as a single consolidated aeroplane operator liable for compliance with these requirements, subject to the approval of BRUNEI DCA. Evidence shall be provided in the aeroplane operator's Emissions Monitoring Plan (refer to Chapter 2) to demonstrate that the subsidiary aeroplane operator is wholly owned.

1.6. BRUNEI DCA shall submit to ICAO a list of aeroplane operators which are attributed to it by 30 April 2019, and annually by 30 November thereafter. BRUNEI DCA may submit updates to this list to ICAO on a more frequent basis.

ATTRIBUTION OF INTERNATIONAL FLIGHTS TO AN AEROPLANE OPERATOR

1.7. The aeroplane operator shall identify international flights that are attributed to it according to the approach in 1.8.

1.8. A specific international flight shall be attributed to the aeroplane operator as follows:

(a) ICAO Designator: When Item 7 (aircraft identification) of the flight plan contains the ICAO Designator, that flight shall be attributed to the aeroplane operator that has been assigned this Designator;

(b) Registration marks: When Item 7 (aircraft identification) of the flight plan contains the nationality or common mark, and registration mark of an aeroplane that is explicitly listed in an air operator certificate (or equivalent) issued by BRUNEI, that flight shall be attributed to the aeroplane operator that holds the air operator certificate (or equivalent); or

(c) Other: When the aeroplane operator of a flight has not been identified via (a) or (b), that flight shall be attributed to the aeroplane owner who shall then be considered the aeroplane operator.

1.9. Upon request by BRUNEI DCA, owners of aeroplanes registered in BRUNEI shall provide all information necessary to identify the actual aeroplane operator of a flight.

1.10. The aeroplane operator may delegate the administrative requirements to a third party contractor. The third party contractor may not also conduct verification services for the aeroplane operator as prescribed in Chapter 4. Liability for compliance shall remain with the aeroplane operator in all situations.

Note *- The role of the authority, administrative processes and details on forming bilateral agreements between states is not included here and is referred to in Annex 16, Volume IV.*

RECORD KEEPING

1.11. The aeroplane operator shall keep records relevant to demonstrating compliance with the requirements for a period of 10 years.

1.12. BRUNEI DCA shall keep records relevant to the aeroplane operator's CO_2 emissions per State pair during the period of 2019 – 2020 order to calculate the aeroplane operator's offsetting requirements during the 2030-2035 compliance periods.

CHAPTER 2 — MONITORING OF CO_2 EMISSIONS

APPLICABILITY

2.1. This Chapter shall be applicable to an aeroplane operator attributed to BRUNEI that produces annual CO_2 emissions greater than 10 000 tonnes from the use of an aeroplane(s) with a maximum certificated take-off mass greater than 5 700 kg conducting international flights on or after 1 January 2019, with the exception of humanitarian, medical and firefighting flights.

2.2. This Chapter shall not be applicable to international flights preceding or following a humanitarian, medical or firefighting flight provided such flights were conducted with the same aeroplane, and were required to accomplish the related humanitarian, medical or firefighting activities or to reposition thereafter the aeroplane for its next activity. The aeroplane operator shall provide supporting evidence of such activities to the verification body or, upon request, to BRUNEI DCA.

2.3. This Chapter shall be applicable to a new entrant aeroplane operator attributed to BRUNEI from the year after it meets the requirements in 2.1 and 2.2.

EMISSIONS MONITORING PLAN

2.4. The aeroplane operator shall submit an Emissions Monitoring Plan to BRUNEI DCA by 28 February 2019.

2.5. The Emissions Monitoring Plan shall contain the information as defined in Appendix 1.

2.6. The aeroplane operator shall submit the Emissions Monitoring Plan to BRUNEI DCA.

NOTE: Emissions Monitoring Plan template is available on:
https://www.icao.int/environmental-protection/CORSIA/Pages/Templates.aspx

2.7. BRUNEI DCA shall engage with the aeroplane operator to resolve any outstanding issues identified in an Emissions Monitoring Plan, and the aeroplane operator's Emissions Monitoring Plan shall be approved by BRUNEI DCA by 30 April 2019.

2.8. BRUNEI DCA shall decide on the level of aggregation (i.e., State pair or aerodrome pair) for which an aeroplane operator shall report the number of international flights and CO_2 emissions, and BRUNEI DCA shall inform the aeroplane operator on the level of aggregation during the approval process for the Emissions Monitoring Plan.

2.9. A new entrant aeroplane operator shall submit an Emissions Monitoring Plan to BRUNEI DCA within three months of falling within the scope of applicability of this Chapter.

2.10. The aeroplane operator shall resubmit the Emissions Monitoring Plan to Brunei DCA if a material change is made to the information contained within the Emissions Monitoring Plan.

2.11. The aeroplane operator shall inform BRUNEI DCA of changes that would affect BRUNEI DCA's oversight (e.g., change in corporate name or address), even if the changes do not fall within the definition of a material change.

MONITORING OF CO_2 EMISSIONS

2.12. The aeroplane operator shall monitor and record its fuel use from international flights in accordance with an eligible monitoring method.

2.13. An aeroplane operator's fuel use monitoring method shall be submitted for approval by BRUNEI DCA.

2.14. Following approval of the Emissions Monitoring Plan, the aeroplane operator shall use the same eligible monitoring method for the entire compliance period.

2019-2020 PERIOD

2.15. The aeroplane operator with annual CO_2 emissions from international flights under the applicability of this Chapter, greater than or equal to 500 000 tonnes shall use a Fuel Use Monitoring Method as described in Appendix 2.

2.16. The aeroplane operator with annual CO_2 emissions from international flights under the applicability of this Chapter, of less than 500 000 tonnes shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT).

2.17. If the aeroplane operator's annual CO_2 emissions from international flights increases above the threshold of 500 000 tonnes in 2019, BRUNEI DCA shall permit, at its discretion, the aeroplane operator to continue to use the chosen monitoring method during 2020.

2.18. If the aeroplane operator does not have an approved Emissions Monitoring Plan as of 1 January 2019, it shall monitor and record its CO_2 emissions in accordance with the eligible monitoring method outlined in the Emissions Monitoring Plan that it will submit, or has submitted, to BRUNEI DCA.

2.19. If the aeroplane operator's Emissions Monitoring Plan is determined to be incomplete and/or inconsistent with the eligible Fuel Use Monitoring Method, then BRUNEI DCA shall, at its discretion, approve a different eligible Fuel Use Monitoring Method within the Emissions Monitoring Plan for a period lasting no later than 30 June 2019.

2.20. If the aeroplane operator does not have sufficient information to use a Fuel Use Monitoring Method, BRUNEI DCA shall, at its discretion, approve the use of the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) for a period lasting no later than 30 June 2019.

2021- 2035 PERIOD

2.21. The aeroplane operator with annual CO_2 emissions from international flights subject to offsetting requirements of greater than or equal to 50 000 tonnes, shall use a Fuel Use Monitoring Method as described in Appendix 2 for these flights. For international flights not subject to offsetting requirements the aeroplane operator shall use either a Fuel Use Monitoring Method, or the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT).

2.22. The aeroplane operator, with annual CO_2 emissions from international flights subject to offsetting requirements of less than 50 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT).

2.23. If the aeroplane operator's annual CO_2 emissions from international flights subject to offsetting requirements increases above the threshold of 50 000 tonnes in a given year (y), and also in year (y+1), the aeroplane operator shall submit an updated Emissions Monitoring Plan by 30 September of year (y+2). The aeroplane operator shall change to a Fuel Use Monitoring Method, as described in Appendix 2, on 1 January of year (y+3).

2.24. If the aeroplane operator's annual CO_2 emissions from international flights subject to offsetting requirements decreases below the threshold of 50 000 tonnes in a given year (y), and also in year (y+1), the aeroplane operator may change monitoring method on 1 January of year (y+3). If the aeroplane operator chooses to change its monitoring method, it shall submit an updated Emissions Monitoring Plan by 30 September of year (y+2).

CALCULATION OF CO_2 EMISSIONS FROM AEROPLANE FUEL USE

2.25. The aeroplane operator shall apply a fuel density value to calculate fuel mass where the amount of fuel uplift is determined in units of volume.

2.26. The aeroplane operator shall record the fuel density that is used for operational and safety reasons. Fuel density may be an actual or a standard value of 0.8 kg per litre. The aeroplane operator shall detail the procedure for informing the use of actual or standard density in the Emissions Monitoring Plan along with a reference to the relevant aeroplane operator documentation.

2.27. The aeroplane operator using a Fuel Use Monitoring Method shall determine the CO_2 emissions from international flights using the following equation:

$$CO_2 = \sum_f M_f * FCF_f$$

Where:

CO_2 = CO_2 emissions (in tonnes);

M_f = Mass of fuel f used (in tonnes); and

FCF_f = Fuel conversion factor of given fuel f, equal to 3.16 (in kg CO_2/kg fuel) for Jet-A fuel/Jet-A1 fuel and 3.10 (in kg CO_2/kg fuel) for AvGas or Jet-B fuel.

Note *– For the purpose of calculating CO_2 emissions the mass of fuel used includes all aviation fuels.*

MONITORING OF CORSIA ELIGIBLE FUEL CLAIMS

2.28. The aeroplane operator that intends to claim for emissions reductions from the use of CORSIA eligible fuels shall use a CORSIA eligible fuel that meets the CORSIA Sustainability Criteria as defined within the ICAO document entitled “CORSIA Sustainability Criteria for CORSIA Eligible Fuels” that is available on the ICAO CORSIA website.

2.29. The aeroplane operator that intends to claim for emissions reductions from the use of CORSIA eligible fuels shall only use CORSIA eligible fuels from fuel producers that are certified by an approved Sustainability Certification Scheme included in the ICAO document entitled “CORSIA Approved Sustainability Certification Schemes”, that is available on the ICAO CORSIA website. Such certification schemes meet the requirements included in the ICAO document entitled “CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes”, that is available on the ICAO CORSIA website.

2.30. If the aeroplane operator cannot demonstrate the compliance of the CORSIA eligible fuel with the CORSIA Sustainability Criteria, then the fuel shall not be accounted for as CORSIA eligible fuel.

CHAPTER 3: REPORTING OF CO_2 EMISSIONS AND EMISSIONS REPORT

3.1 This Chapter shall be applicable to an aeroplane operator attributed to BRUNEI that produces annual CO_2 emissions greater than 10 000 tonnes from the use of an aeroplane(s) with a maximum certificated take-off mass greater than 5 700 kg conducting international flights on or after 1 January 2019, with the exception of humanitarian, medical and firefighting flights.

3.2 This Chapter shall not be applicable to international flights preceding or following a humanitarian, medical or firefighting flight provided such flights were conducted with the same aeroplane, and were required to accomplish the related humanitarian, medical or firefighting activities or to reposition thereafter the aeroplane for its next activity. The aeroplane operator shall provide supporting evidence of such activities to the verification body or, upon request, to BRUNEI DCA.

3.3 This Chapter shall be applicable to a new entrant aeroplane operator attributed to BRUNEI from the year after it meets the requirements in 3.1 and 3.2.

REPORTING OF CO_2 EMISSIONS

CO_2 emissions occurred during Reporting periods of 2019 and 2020

3.4 The aeroplane operator shall submit to BRUNEI DCA a copy of the verified Emissions Report and a copy of the associated Verification Report by 31 May in the calendar year, which follows the reporting period.

3.5 When the aeroplane operator reports its consolidated CO_2 emissions from international flights during the 2019-2020 period, including subsidiary aeroplane operators, disaggregated data relating to each subsidiary aeroplane operator shall be appended to the main Emissions Report.

CO_2 emissions occurred during Reporting periods of 2021-2035

3.6 The aeroplane operator shall submit to BRUNEI DCA a copy of the verified Emissions Report and a copy of the associated Verification Report by 30 April in the calendar year, which follows the reporting period.

AEROPLANE OPERATOR'S EMISSIONS REPORT

3.7 The Emissions Report shall include information contained in Appendix 3.

3.8 The aeroplane operator shall submit the Emissions Report to BRUNEI DCA.

Note: Emissions Report template is available on https://www.icao.int/environmental-protection/CORSIA/Pages/Templates.aspx

3.9 An aeroplane operator's Emissions Report shall be submitted for approval by BRUNEI DCA.

3.10 Based on Emissions Reports, BRUNEI DCA shall calculate average total CO_2 emissions of each aeroplane operator from 2019- 2020. BRUNEI DCA shall inform the aeroplane operator of this calculation by 30 September 2021.

PUBLISHING EMISSIONS REPORT INFORMATION

3.11 In specific circumstances where the aeroplane operator operates a very limited number of State pairs that are subject to offsetting requirements, and/or a very limited number of State pairs that are not subject to offsetting requirements, it may request in writing to BRUNEI DCA that such data not be published at the aeroplane operator level explaining the reasons why disclosure would harm its commercial interests. Based on this request, BRUNEI DCA shall determine whether this data is confidential.

3.12 In specific circumstances where aggregated State pair data may be attributed to an identified aeroplane operator as a result of a very limited number of aeroplane operators conducting flights on a State pair, that aeroplane operator may request in writing to BRUNEI DCA that such data not be published at State pair level, explaining the reasons why disclosure would harm their commercial interests. Based on this request, BRUNEI DCA shall determine whether this data is confidential.

REPORTING OF CORSIA ELIGIBLE FUELS

3.13 The use of CORSIA eligible fuel reported to BRUNEI DCA shall not include any fuels traded or sold to a third party.

3.14 The aeroplane operator which participates in other greenhouse gas reductions schemes shall notify BRUNEI DCA of such participation. This notification will include a declaration that CORSIA eligible fuels reported under this Requirement have not also been claimed under another greenhouse gas reduction scheme.

3.15 The aeroplane operator may claim reduced emissions from using CORSIA eligible fuel in its Emissions Report. In order to make such claim, the aeroplane operator must provide supplementary information as described in Appendix 4. This information must originate at the blend point, and include fuel information from both the neat (unblended) fuel producer and the fuel blender.

3.16 The aeroplane operator can decide when to make a CORSIA eligible fuel claim within a given compliance period for all CORSIA eligible fuel received by a blender within that compliance period.

3.17 If the aeroplane operator purchases fuel from a supplier downstream from the fuel blender (e.g., from a distributor, another aeroplane operator, or an aerodrome-based fuel distributor), this fuel supplier shall provide all of the requisite documentation in order for the emissions reductions from the use of CORSIA eligible fuels to be claimed by the aeroplane operator.

BRUNEI DCA REPORTING TO ICAO

3.18 Regarding the CO_2 emissions for year 2019, BRUNEI DCA shall, by 31 August 2020, report information as defined in Appendix 5, and Appendix 7, if applicable, to the International Civil Aviation Organization.

3.19 Regarding the CO_2 emissions for year 2020, BRUNEI DCA shall, by 31 August 2021, report information as defined in Appendix 5, and Appendix 7, if applicable, to the International Civil Aviation Organization.

3.20 Regarding the CO_2 emissions for 2021- 2035 period, BRUNEI DCA shall, by 31 July 2022, and by 31 July annually thereafter, report information as defined in Appendix 6, and Appendix 7, if applicable, to the International Civil Aviation Organization.

3.21 In cases where 3.11 and 3.12 applies, BRUNEI DCA shall determine whether this data is confidential, and also inform the International Civil Aviation Organization of any data deemed confidential in accordance with 3.11 and 3.12 within the report to be submitted by 31 August 2020.

3.22 All aeroplane operator data which is deemed confidential in accordance with 3.11 and 3.12 shall be aggregated without attribution to the specific aeroplane operator, and included within the ICAO document entitled “CORSIA Central Registry (CCR): Information and Data for Transparency” that is available on the ICAO CORSIA website.

CHAPTER 4: VERIFICATION REQUIREMENTS

4.1. This Chapter shall be applicable to an aeroplane operator attributed to BRUNEI that produces annual CO_2 emissions greater than 10 000 tonnes from the use of an aeroplane(s) with a maximum certificated take-off mass greater than 5 700 kg conducting international flights on or after 1 January 2019, with the exception of humanitarian, medical and firefighting flights.

4.2. This Chapter shall not be applicable to international flights preceding or following a humanitarian, medical or firefighting flight provided such flights were conducted with the same aeroplane, and were required to accomplish the related humanitarian, medical or firefighting activities or to reposition thereafter the aeroplane for its next activity. The aeroplane operator shall provide supporting evidence of such activities to the verification body or, upon request, to BRUNEI DCA.

4.3. This Chapter shall be applicable to a new entrant aeroplane operator attributed to BRUNEI from the year after it meets the requirements in 4.1 and 4.2.

VERIFICATION OF AN EMISSIONS REPORT AND SUBMISSION OF RELEVANT REPORTS

4.4. The aeroplane operator shall engage a verification body for the verification of its Emissions Report.

4.5. A verification body shall conduct the verification according to ISO 14064-3:2006, and the relevant requirements in Appendix 8.

4.6. Following the verification of the Emissions Report by the verification body, the aeroplane operator and the verification body shall both independently submit, upon authorization by the aeroplane operator, a copy of the Emission Report and associated Verification Report to BRUNEI DCA, in accordance with the timeline in 3.4 and 3.6.

4.7. BRUNEI DCA shall perform an order of magnitude check of the Emissions Report.

4.8. To facilitate order of magnitude checks and ensure the completeness of reported data, and where necessary to support the implementation of the requirements in this Requirement, BRUNEI DCA shall share, upon agreement with another State's Administrating Authority, specific data and information contained in the aeroplane

operator's Emissions Report for aeroplane operators performing flights to and from the requesting State.

4.9. BRUNEI DCA shall inform concerned aeroplane operators on the requests for data sharing. In the absence of an agreement between the two States, this information shall not be disclosed to third parties.

4.10. BRUNEI DCA shall provide the name of the verification body used to verify each Emissions Report upon a request for information disclosure.

REQUIREMENTS FOR A VERIFICATION BODY AND NATIONAL ACCREDITATION BODY

4.11. A verification body shall be accredited to ISO 14065:2013 and to the relevant requirements in Appendix 9 by a national accreditation body, in order to be eligible to verify the Emissions Report of the aeroplane operator.

4.12. A national accreditation body shall be working in accordance with ISO/IEC 17011.

4.13. BRUNEI DCA shall submit to ICAO a list of verification bodies accredited in BRUNEI by 30 April 2019, and annually by 30 November thereafter. BRUNEI DCA may submit updates to this list to ICAO on a more frequent basis.

Note on Requirement 4.13 *– This is applicable only if Brunei has National Accreditation Body (NAB)*

VERIFICATION OF CORSIA ELIGIBLE FUELS

4.14. Fuel purchases, transaction reports, fuel blending records and sustainability credentials shall constitute the documentary proof for the purpose of verification and approval of emissions reductions from the use of CORSIA eligible fuels.

4.15. The aeroplane operator shall ensure that it, or its designated representative, has audit rights of the production records for the CORSIA eligible fuels that it purchases.

DATA GAPS AND ERROR CORRECTION

4.16. The aeroplane operator shall correct issues identified with the aeroplane operator's data and information management system in a timely manner to mitigate ongoing data gaps and system weaknesses.

4.17. The aeroplane operator using a Fuel Use Monitoring Method shall fill a data gap by using the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT), provided that the data gaps during a compliance period do not exceed the following thresholds:

(a) For 2019 – 2020 period: 5 per cent of international flights;

(b) For 2021 – 2035 period: 5 per cent of international flights subject to offsetting requirements.

4.18. If the aeroplane operator realizes it has data gaps that exceed the threshold in 4.17, then the aeroplane operator shall engage with BRUNEI DCA to take remedial action to address this.

4.19. When the threshold is exceeded, the aeroplane operator shall state the percentage of international flights for the 2019 – 2020 period, or flights subject to offsetting requirements for the 2021 – 2035 period, that had data gaps, and provide an explanation to BRUNEI DCA in their annual Emissions Report.

4.20. The aeroplane operator shall fill all data gaps and correct systematic errors and misstatements prior to the submission of the Emissions Report.

4.21. If the aeroplane operator does not provide its Emissions Report in accordance with the timeline, BRUNEI DCA shall engage with the aeroplane operator to obtain the necessary information. If this proves unsuccessful, then BRUNEI DCA shall estimate the aeroplane operator's annual emissions using the best available information and tools, such as the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT).

4.22. If an error in the aeroplane operator's reported emissions is identified by BRUNEI DCA, the verification body, or the aeroplane operator after the reported CO_2 emissions have been submitted to ICAO, BRUNEI DCA shall update the reported CO_2 emissions to address the error. BRUNEI DCA shall assess any implications with respect to the aeroplane operator's offsetting requirements in previous years and, if necessary, make an adjustment to compensate for the error during the compliance period in which the error has been identified.

4.23. BRUNEI DCA shall report an error in the aeroplane operator's CO_2 emissions and the follow-up result of the related adjustment to ICAO.

Appendix 1: Content of an Emissions Monitoring Plan

1. INTRODUCTION

The Emissions Monitoring Plan of an aeroplane operator shall contain the information listed in Section 2 of this Appendix.

2. CONTENT OF EMISSIONS MONITORING PLANS

***Note** – The template of an Emissions Monitoring Plan (from aeroplane operator to State) is provided in Appendix 1 of the Environmental Technical Manual (Doc 9501), Volume IV – Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).*

2.1. AEROPLANE OPERATOR IDENTIFICATION

2.1.1. Name and address of the aeroplane operator with legal responsibility.

2.1.2. Information for attributing the aeroplane operator to a State:

(a) ICAO Designator: ICAO Designator(s) used for air traffic control purposes, as listed in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.

(b) Air operator certificate: If the aeroplane operator does not have an ICAO Designator, then a copy of the air operator certificate.

(c) Place of juridical registration: If the aeroplane operator does not have an ICAO Designator or an air operator certificate, then the aeroplane operator's place of juridical registration.

2.1.3. Details of ownership structure relative to any other aeroplane operators with international flights, including identification of whether the aeroplane operator is a parent company to other aeroplane operators with international flights, a subsidiary of another aeroplane operator(s) with international flights, and/or has a parent and or subsidiaries that are aeroplane operators with international flights.

2.1.4. If the aeroplane operator in a parent-subsidiary relationship seeks to be considered a single aeroplane operator for purposes of this Requirement, then confirmation shall be provided that the parent and subsidiary(ies) are attributed to the BRUNEI and that the subsidiary(ies) are wholly-owned by the parent.

2.1.5. Contact information for the person within the aeroplane operator's company who is responsible for the Emissions Monitoring Plan.

2.1.6. Description of the aeroplane operator's activities (e.g. scheduled/non-scheduled, passenger/cargo/executive, and geographic scope of operations).

2.2. FLEET AND OPERATIONS DATA

2.2.1. 2.2.1 List of the aeroplane types and type of fuel (e.g. Jet-A, Jet-A1, Jet-B, AvGas) used in aeroplanes operated for international flights at the time of submission of the Emissions Monitoring Plan, recognizing that there may be changes over time. The list shall include:

(a) Aeroplane types with a maximum certificated take-off mass of 5 700 kg or greater and the number of aeroplane per type, including owned and leased aeroplanes; and

Note 1 *– Aeroplane types are contained in Doc 8643 — Aircraft Type Designators.*

Note 2 *– The aeroplane operator using the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) could use the functionality of the CERT to identify applicable aeroplane types.*

(b) Type of fuel(s) used by the aeroplanes (e.g., Jet-A, Jet-A1, Jet-B, AvGas).

Note *– The aeroplane operator using the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) does not need to specify the type of fuel used by aeroplanes.*

2.2.2. Information used for attributing international flights to the aeroplane operator:

(a) ***ICAO Designator***: List of the ICAO Designator(s) used in Item 7 of the aeroplane operator's flight plans.

(b) ***Registration marks***: If the aeroplane operator does not have an ICAO Designator, then a list of the nationality or common mark, and registration mark of aeroplanes that are explicitly stated in the air operator certificate (or equivalent) and used in Item 7 of the aeroplane operator's flight plans.

2.2.3. Procedures on how changes in the aeroplane fleet and fuel used will be tracked, and subsequently integrated in the Emissions Monitoring Plan.

2.2.4. Procedures on how the specific flights of an aeroplane will be tracked to ensure completeness of monitoring.

2.2.5. Procedures for determining which aeroplane flights are subject to the Chapter 2, Chapter 3, or Chapter 4 requirements.

Note *– The aeroplane operator using the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) could use the functionality of the CERT to identify international flights, as long as all flights (i.e., domestic and international) conducted during the reporting year are entered as input into the tool.*

2.2.6. List of States to where the aeroplane operator operates international flights at the time of initial submission of the Emissions Monitoring Plan.

Note *– The aeroplane operator using the estimation functionality of the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) to assess its eligibility to use the CERT could use the output of the tool (i.e., list of States) as input to the Emissions Monitoring Plan submission.*

2.2.7. Procedures for determining which international aeroplane flights are subject to CORSIA offsetting requirements.

Note *– The aeroplane operator using the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) could use the functionality of the CERT to identify flights subject to offsetting requirements in a given year of compliance as long as the aeroplane operator uses the correct version (i.e., year of compliance) of the CERT.*

2.2.8. Procedures for identifying domestic flights and/or humanitarian, medical or firefighting international flights that would not be subject to Chapter 2, Chapter 3, or Chapter 4 requirements.

2.3. METHODS AND MEANS OF CALCULATING EMISSIONS FROM INTERNATIONAL FLIGHTS

2.3.1. Methods and means for establishing the average emissions during the 2019-2020 period

2.3.1.1. If the aeroplane operator meets the eligibility criteria in 2.16 and chooses to use the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT), then the following information shall be provided:

(a) An estimate of CO_2 emissions for all international flights within the applicability of Chapter 2, Chapter 3, or Chapter 4 requirements for 2019 with supporting information on how the estimation was calculated.

(b) The type of input method used in the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT):

- Great Circle Distance input method; or
- Block Time input method.

Note *– Guidance on estimating CO_2 emissions for 2019 is provided in the Environmental Technical Manual (Doc 9501), Volume IV – Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).*

2.3.1.2. If the aeroplane operator meets the eligibility criteria in 2.15 or chooses to use a Fuel Use Monitoring method as described in Appendix 2, then the following information shall be provided:

(a) The Fuel Use Monitoring Method that will be used:

- Method A;
- Method B;
- Block-off / Block-on;
- Fuel Uplift; or
- Fuel Allocation with Block Hour.

(b) If different Fuel Use Monitoring Methods are to be used for different aeroplane types, then the aeroplane operator shall specify which method applies to which aeroplane type;

(c) Information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and a reference to the relevant aeroplane operator documentation; and

(d) The systems and procedures to monitor fuel consumption in both owned and leased aeroplane. If the aeroplane operator has chosen the Fuel Allocation with Block Hour method, information shall be provided on the systems and procedures used to establish the average fuel burn ratios as described in Appendix 2.

2.3.1.3. If the aeroplane operator is in a parent-subsidiary relationship and seeks to be considered as a single aeroplane operator for purposes of this Requirement, then it shall provide the procedures that will be used for maintaining records of fuel used and emissions monitored during the 2019 – 2020 period of the various corporate entities. This shall be used to establish individual average emissions during the 2019 – 2020 period for the parent and subsidiary (or subsidiaries).

2.3.2. Methods and means for emissions monitoring and compliance on or after 1 January 2021

2.3.2.1. If the aeroplane operator has international flights, but these are not subject to offsetting requirements, then it shall confirm whether it plans to use the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) or the Fuel Use Monitoring Methods as described in Appendix 2.

2.3.2.2. If the aeroplane operator meets the eligibility criteria in 2.22, and it chooses to use the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT), then the following information shall be provided:

(a) An estimate of CO_2 emissions for all international flights subject to offsetting requirements for the year before the emissions monitoring is to occur (for example, an estimate of such emissions for 2020 for monitoring in 2021), as well as information on how the fuel use and CO_2 estimation was calculated.

(b) The type of input method used in the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT):

- Great Circle Distance input method; or
- Block Time input method.

2.3.2.3. If the aeroplane operator meets the eligibility criteria in 2.21, or chooses to use a Fuel Use Monitoring method as described in Appendix 2, then the following information shall be provided:

(a) The Fuel Use Monitoring Method that will be used:

- Method A;
- Method B;
- Block-off / Block-on;
- Fuel Uplift; or
- Fuel Allocation with Block Hour.

(b) If different Fuel Use Monitoring Methods are to be used for different aeroplane types, then the aeroplane operator shall specify which method applies to which aeroplane type;

(c) Information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and a reference to the relevant aeroplane operator documentation; and

(d) The systems and procedures to monitor fuel consumption in both owned and leased aeroplane. If the aeroplane operator has chosen the Fuel Allocation with Block Hour method, information shall be provided on the systems and procedures used to establish the average fuel burn ratios as described in Appendix 2.

2.3.2.4. If the aeroplane operator is using a Fuel Use Monitoring Method, as defined in Appendix 2, it shall state whether it plans to use the ICAO CORSIA CERT for international flights that are subject to emissions monitoring but not offsetting requirements. If so, the aeroplane operators shall also state which input method into the ICAO CORSIA CERT is being used (i.e., Great Circle Distance input method, or Block Time input method).

2.4. DATA MANAGEMENT, DATA FLOW AND CONTROL

2.4.1. The aeroplane operator shall provide the following information:

(a) Roles, responsibilities and procedures on data management;

(b) Procedures to handle data gaps and erroneous data values, including:

(i) Secondary data reference sources which would be used as an alternative;

(ii) Alternative method in case the secondary data reference source is not available; and

(iii) For those aeroplane operators using a Fuel Use Monitoring Method, information on systems and procedures for identifying data gaps and for assessing whether the 5 per cent threshold for significant data gaps has been reached.

(c) Documentation and record keeping plan;

(d) Assessment of the risks associated with the data management processes and means for addressing significant risks;

(e) Procedures for making revisions to the Emissions Monitoring Plan and resubmitting relevant portions to the BRUNEI when there are material changes;

(f) Procedures for providing notice in the Emissions Report of non-material changes that require the attention of the BRUNEI; and

(g) A data flow diagram summarizing the systems used to record and store data associated with the monitoring and reporting of CO_2 emissions.

Appendix 2: Fuel Use Monitoring Methods

1. INTRODUCTION

Note *– The procedures specified in this Appendix are concerned with the monitoring of fuel use by aeroplane operators. The methods proposed are representative of the most accurate established practices.*

Any equivalent procedures to those contained in this Appendix shall only be allowed after prior application to and approval by the BRUNEI.

2. FUEL USE MONITORING METHODS

2.1. The aeroplane operator, with the exception of an aeroplane operator eligible to use the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT), shall choose from the following fuel use monitoring methods:

(a) Method A;

(b) Method B;

(c) Block-off / Block-on;

(d) Fuel Uplift; or

(e) Fuel Allocation with Block Hour.

2.2. Method A

2.2.1. The aeroplane operator shall use the following formula to compute fuel use according to Method A:

$$F_N = T_N - T_{N+1} + U_{N+1}$$

Where:

F_N = Fuel used for the flight under consideration (=flight $_N$) determined using Method A (in tonnes);

T_N = Amount of fuel contained in aeroplane tanks once fuel uplifts for the flight under consideration (i.e., flight $_N$) are complete (in tonnes);

T_{N+1} = Amount of fuel contained in aeroplane tanks once fuel uplifts for the subsequent flight (i.e., flight $_{N+1}$) are complete (in tonnes); and

U_{N+1} = Sum of fuel uplifts for the subsequent flight (i.e., flight $_{N+1}$) measured in volume and multiplied with a density value (in tonnes).

Note 1 *– See 2.23 and 2.24 for requirements on fuel density values.*

Note 2 *– Fuel uplift U_{N+1} is determined by the measurement by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight.*

Note 3 *– For ensuring completeness of the data, it is important to note that not only data generated during the flight under consideration (i.e., flight N) is needed, but also data generated from the subsequent flight (i.e., flight N+1). This is of particular importance when a domestic flight is followed by an international flight, or vice versa. In order to avoid data gaps it is therefore recommended that the Block-on fuel or the amount of fuel in the tank after all fuel uplifts for a flight is always recorded on flights of aeroplanes which are used for international flights. For the same reasons, fuel uplift data for all flights of those aeroplanes should be collected, before deciding which flights are international.*

2.2.2. The aeroplane operator performing on an ad-hoc basis flights attributed to another aeroplane operator shall provide to the latter the fuel measurement values according to the Block-off / Block-on method.

2.2.3. Where no fuel uplift for the flight or subsequent flight takes place, the amount of fuel contained in aeroplane tanks (T_N or T_{N+1}) shall be determined at block-off for the flight or subsequent flight. In exceptional cases the variable T_{N+1} cannot be determined. This is the case when an aeroplane performs activities other than a flight, including undergoing major maintenance involving the emptying of the tanks, after the flight to be monitored. In such case the aeroplane operator may substitute the quantity "$T_{N+1} + U_{N+1}$" with the amount of fuel remaining in tanks at the start of the subsequent activity of the aeroplane or fuel in tanks at Block-on, as recorded by technical logs.

2.3. Method B

2.3.1. The aeroplane operator shall use the following formula to compute fuel use according to Method B:

$$F_N = R_{N-1} - R_N + U_N$$

Where:

F_N = Fuel used for the flight under consideration (i.e., flight N) determined using Method B (in tonnes);

R_{N-1} = Amount of fuel remaining in aeroplane tanks at the end of the previous flight (i.e., flight $N-1$) at Block-on before the flight under consideration, (in tonnes);

R_N = Amount of fuel remaining in aeroplane tanks at the end of the flight under consideration (i.e., flight N) at Block-on after the flight, (in tonnes); and

U_N = Fuel uplift for the flight considered measured in volume and multiplied with a densit value (in tonnes).

Note 1 *– See 2.25 and 2.26 for requirements on fuel density values.*

Note 2 *– Fuel uplift is determined by the measurement by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight.*

Note 3 *– For ensuring completeness of the data, it is important to note that not only data generated during the flight under consideration (i.e., flight N) is needed, but also data*

generated from the previous flight (i.e., flight $_{N-1}$). This is in particular important when a domestic flight is followed by an international, or vice versa. For avoiding data gaps it is therefore recommended that, the amount of fuel remaining in the tank after the flight or the amount of fuel in the tank after fuel uplift is always recorded on flights of aeroplane which are used for international flights. For the same reasons, fuel uplift data for all flights of those aeroplane should be collected, before deciding which flights are international.

2.3.2. The aeroplane operator performing on an ad-hoc basis flights attributed to another aeroplane operator shall provide to the latter the fuel measurement values according to the Block-off / Block-on method.

2.3.3. Where an aeroplane does not perform a flight previous to the flight for which fuel consumption is being monitored (e.g., if the flight follows a major revision or maintenance), the aeroplane operator may substitute the quantity R_{N-1} with the amount of fuel remaining in aeroplane tanks at the end of the previous activity of the aeroplane, as recorded by technical logs.

2.4. Block-off/Block-on

2.4.1. The aeroplane operator shall use the following formula to compute fuel use according to the Block-off / Block-on Method:

$$F_N = T_N - R_N$$

Where:

F_N = Fuel used for the flight under consideration (=flight $_N$) determined using Block-off/Block-on Method (in tonnes);

T_N = Amount of fuel contained in aeroplane tanks at Block-off for the flight under consideration i.e., flight $_N$ (in tonnes); and

R_N = Amount of fuel remaining in aeroplane tanks at Block-on of the flight under consideration i.e., flight $_N$ (in tonnes).

2.5. Fuel Uplift

2.5.1. For flights with a fuel uplift unless the subsequent flight has no uplift, the aeroplane operator shall use the following formula to compute fuel use according to the Fuel Uplift Method:

$$F_N = U_N$$

Where:

F_N = Fuel used for the flight under consideration (i.e., flight $_N$) determined using fuel uplift (in tonnes); and

U_N = Fuel uplift for the flight considered, measured in volume and multiplied with a density value (in tonnes).

***Note 1** – See 2.25 and 2.26 for requirements on fuel density values.*

2.5.2. For flight(s) without a fuel uplift (i.e., flight $_{N+1}$, …, flight $_{N+n}$,), the aeroplane operator shall use the following formula to allocate fuel use from the prior fuel uplift (i.e., from flight $_N$) proportionally to block hour:

$$F_N = U_N * \left[\frac{BH_N}{BH_N + BH_{N+1} + \cdots + BH_{N+n}}\right]$$

$$F_{N+1} = U_N * \left[\frac{BH_{N+1}}{BH_N + BH_{N+1} + \cdots + BH_{N+n}}\right]$$

$$F_{N+n} = U_N * \left[\frac{BH_{N+n}}{BH_N + BH_{N+1} + \cdots + BH_{N+n}}\right]$$

Where:

F_N = Fuel used for the flight under consideration (i.e., flight $_N$) determined using fuel uplift (in tonnes);

F_{N+1} = Fuel used for the subsequent flight (i.e., flight $_{N+1}$) determined using fuel uplift (in tonnes);

…

F_{N+n} = Fuel used for the follow-on flight (i.e., flight $_{N+n}$) determined using fuel uplift (in tonnes);

U_N = Fuel uplift for the flight under consideration (i.e., flight $_N$) (in tonnes);

BH_N = Block hour for the flight under consideration (i.e., flight $_N$) (in hours);

BH_{N+1} = Block hour for the subsequent flight (i.e., flight $_{N+1}$) (in hours); and

…

BH_{N+n} = Block hour for the follow-on flight (i.e., flight $_{N+n}$) (in hours).

Note *– Fuel uplift is determined by the measurement by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight.*

2.6. Fuel Allocation with Block Hour

2.6.1. Computation of average fuel burn ratios

2.6.1.1. For an aeroplane operator which can clearly distinguish between international and domestic fuel uplifts, the aeroplane operator shall compute, for each aeroplane type, the average fuel burn ratios by summing up all actual fuel uplifts from international flights, divided by the sum of all actual block hours from international flights for a given year, according to the following formula:

$$AFBR_{AO,AT} = \frac{\sum_N U_{AO,AT,N}}{\sum_N BH_{AO,AT,N}}$$

Where:

$AFBR_{AO, AT}$ = Average fuel burn ratios for aeroplane operator (AO) and aeroplane type (AT) (in tonnes per hour);

$U_{AO, AT, N}$ = Fuel uplifted for the international or a domestic flight N for aeroplane operator (AO) and aeroplane type (AT) measured in volume and multiplied with a specific density value (in tonnes); and

$BH_{AO, AT, N}$ = Block hour for the international and domestic flight N for aeroplane operator (AO) and aeroplane type (AT) (in hours).

2.6.1.2. For an aeroplane operator which cannot clearly distinguish between international and domestic fuel uplifts, the aeroplane operator shall compute, for each aeroplane type, the average fuel burn ratios by summing up all actual fuel uplifts from international and domestic flights divided by the sum of all actual block hours from these flights for a given year, according to the following formula:

$$AFBR_{AO,AT} = \frac{\sum_N U_{AO,AT,N}}{\sum_N BH_{AO,AT,N}}$$

Where:

$AFBR_{AO, AT}$ = Average fuel burn ratios for aeroplane operator (AO) and aeroplane type (AT) (in tonnes per hour);

$U_{AO, AT, N}$ = Fuel uplifted for the international or a domestic flight N for aeroplane operator (AO) and aeroplane type (AT) measured in volume and multiplied with a specific density value (in tonnes); and

$BH_{AO, AT, N}$ = Block hour for the international and domestic flight N for aeroplane operator (AO) and aeroplane type (AT) (in hours).

2.6.1.3. An aeroplane operator specific average fuel burn ratios shall be calculated on a yearly basis by using the yearly data from the actual reporting year. The average fuel burn ratios shall be reported, for each aeroplane type, in the aeroplane operator's Emissions Report.

Note 1 *– See 2.25 and 2.26 for requirements on fuel density values.*

Note 2 *– Aeroplane types are contained in Doc 8643 – Aircraft Type Designators.*

2.6.2. Computation of fuel use for individual flights

2.6.2.1. The aeroplane operator shall compute the fuel consumption for each international flight by multiplying the aeroplane operator specific average fuel burn ratios with the flight's block hour according to the following formula:

$$F_N = AFBR_{AO, AT} * BH_{AO, AT, N}$$

Where:

F_N = Fuel allocated to the international flight under consideration (i.e., flight $_N$) using the Fuel Allocation Block Hour method (in tonnes);

$AFBR_{AO, AT}$ = Average fuel burn ratios for aeroplane operator (AO) and aeroplane type (AT) (in tonnes per hour); and

$BH_{AO, AT, N}$ = Block hour for the international flight under consideration (=flight $_N$) for aeroplane operator (AO) and aeroplane type (AT) (in hours).

Note 1 *– Fuel uplift is determined by the measurement by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight.*

Note 2 *– The Verification Report of the external verification body includes an assessment of the aeroplane operator specific average fuel burn ratio per ICAO aircraft type designator used.*

Note 3 *– Average fuel burn ratio (AFBR) based on all flights for a reporting year and rounded to at least three decimal places.*

2.6.2.2. A verification body shall cross-check whether the emissions reported are reasonable in comparison to other fuel related data of the aeroplane operator.

Appendix 3: Content of an Emissions Report from Aeroplane Operator to State

Field #	*Data Field*	*Details*
Field 1	Aeroplane operator information	1.a Name of aeroplane operator 1.b Detailed contact information of aeroplane operator 1.c Name of point of contact 1.d Method and identifier used to attribute an aeroplane operator to BRUNEI in accordance with 1.2 1.e State
Field 2	Reference details of aeroplane operator Emissions Monitoring Plan	2. Reference to the Emissions Monitoring Plan that is the basis for emissions monitoring that year *Note – BRUNEI may require providing reference to updated Emissions Monitoring Plan, if applicable.*
Field 3	Information to identify the verification body and Verification Report	3.a Name and contact information of the verification body 3.b Verification Report to be a separate report from aeroplane operator's Emissions Report
Field 4	Reporting year	4. Year during which emissions were monitored
Field 5	Type and mas of fuel(s) used	5.a Total fuel mass per type of fuel: Jet-A (in tonnes) Jet-A1 (in tonnes) Jet-B (in tonnes) AvGas (in tonnes) *Note 1 – Above totals to include CORSIA eligible fuels* *Note 2 – The aeroplane operator using the ICAO CORSIA CERT, does not need to report Field 5.*
Field 6	Total number of international flights during the reporting period	6.a Total number of international flights, subject to Chapter 2, Chapter 3 and Chapter 4 requirements, during the reporting period. *Note – Total (sum of values from Field 7)*
Field 7	Number of international flights per State pair or aerodrome pair	7.a Number of international flights, subject to Chapter 2, Chapter 3 and Chapter 4 requirements, per State pair (no rounding); or 7.b Number of international flights per

		aerodrome pair (no rounding).
Field 8	CO_2 emissions per aerodrome pair or State pair	8.a CO_2 emissions from international flights, subject to Chpter2, Chapter 3 and Chapter 4 requirements, per State pair (in tonnes); or 8.b CO_2 emissions from international flights, subject to Chapter 2, Chapter 3, or Chapter 4 requirements, per aerdrome pair (in tonnes).
Field 9	Scale of data gaps	9.a Per cent of data gaps (according to criteria defined in Part 4.17 and rounded to the nearest 0.1%) 9.b Reason for data gaps if per cent of data gaps exceeds the threshold defined in 4.17
Field 10	Aeroplane information	10.a List of aeroplane types 10.b Aeroplane identidiers used in flight plans' Item 7 during the year for all international flights. Where the identifier is based on an ICAO Designator, only the ICAO Designator is to be reported 10.c Information on leased aeroplanes 10.d Average fuel burn ratio (AFBR) for each aeroplane type under 10.a in line with Doc 8643 – Aircraft Type Designator (in tonnes per hour to 3 decimal places) *Note – 10.d is only required if the aeroplane operator is using the Fuel Allocation with Block Hour method, as defined in Appendix 2.*
Field 11	Eligibility for and use of the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) as per Chapter 2	11.a Version of the ICAO CORSIA CERT used 11.b Scope of use of the ICAO CORSIA CERT i.e., on all flights or only on the international flights not subject to offsetting requirements
Field 12 *Note – If emissions reductions from the use of CORSIA eligible fuel are claimed, see Appendix 4 for supplementary information that is to be provided with the aeroplane operator's Emissions Report.*	CORSIA eligible fuel claimed	12.a Fuel type (i.e., type of fuel, feedstock and conversion process) 12.b Total mass of the neat CORSIA eligible fuel claimed (in tonnes) per fuel type
	Emissions information (per fuel type)	12.c Approved Life Cycle Emissions values 12.d Emissions reductions claimed from a CORSIA eligible fuel
	Emissions reductions (total)	12.e Total emissions reductions claimed from the use of all CORSIA eligible fuels (in tonnes) *Note – During the 2019-2020 period, fields 12.a to 12.e are not required as*

		the applicability of CORSIA offsetting requirements starts on 1 January 2021 i.e., there are no offsetting requirements and no emissions reductions from the use of CORSIA eligible fuels during the 2019-2020 period.
Field 13	Total CO_2 emissions	13.a Total CO_2 emissions (based on total mass of fuel in tonnes from Field 5 and reported in tonnes) 13.b Total CO_2 emissions from flights subject to offsetting requirements (in tonnes) 13.c Total CO_2 emissions from international flights, subject to Chapter 2, Chapter 3, and Chapter 4 requirements and that are not subject to offsetting requirements (in tonnes) *Note – During the 2019-2020 period, only fields 13.a is required as the applicability of CORSIA offsetting requirements starts on 1 January 2021 i.e., there are no State pairs subject to offsetting requirements during the 2019-2020 period.*

Appendix 4: Supplementary Information to an Aeroplane Operator's Emissions Report if Emissions Reductions from the Use of Each CORSIA Eligible Fuel Being Claimed

Field #	***Data Field***	***Details***
Field 1	Purchase date of the neat CORSIA eligible fuel	
Field 2	Identification of the producer of the neat CORSIA eligible fuel	2.a Name of producer of the neat CORSIA eligible fuel 2.b Contact information of the producer of the neat CORSIA eligible fuel
Field 3	Fuel Production	3.a Production date of the neat CORSIA eligible fuel 3.b Production location of the neat CORSIA eligible fuel 3.c Batch number of each batch of neat CORSIA eligible fuel 3.d Mass of each batch of neat CORSIA eligible fuel produced
Field 4	Fuel type	4.a Type of fuel (i.e., Jet-A, Jet-A1, Jet-B, AvGas) 4.b Feedstock used to create the neat CORSIA eligible fuel 4.c Conversion process used to create the neat CORSIA eligible fuel
Field 5	Fuel Purchased	5.a Proportion of neat CORSIA eligible fuel batch purchased (rounded to the nearest %) *Note – If less than an entire batch of CORSIA eligible fuel is purchased.* 5.b Total mass of each batch of neat CORSIA eligible fuel purchased (in tonnes) 5.c Mass of neat CORSIA eligible fuel purchased (in tonnes) *Note – Field 5.c is equal to the total for all batches of CORSIA eligible fuels reported in Field 5.b.*
Field 6	Evidence that fuel satisfies the CORSIA Sustainability Criteria	i.e., valid sustainability certification document
Field 7	Life cycle emissions values of the CORSIA eligible fuel	7.a Default or Actual Life Cycle Emissions Value (LS_f) for given CORSIA eligible fuel f, which is equal to the sum of 7.b and 7.c (in

		gCO_2e/MJ rounded to the nearest whole number) 7.b Default or Actual Core Life Cycle Assessment (LCA) value for given CORSIA eligible fuel f (in gCO_2e/MJ rounded to the nearest whole number) 7.c Default Induced Land Use Change (ILUC) value for given CORSIA eligible fuel f (in gCO_2e/MJ rounded to the nearest whole number)
Field 8	Intermediate purchaser	8.a Name of the intermediate purchaser 8.b Contact information of the intermediate purchaser *Note – This information would be included in the event that the aeroplane operator claiming emissions reductions from the use of CORSIA eligible fuels was not the original purchaser of the fuel from the producer (e.g., the aeroplane operator purchased fuel from a broker or a distributor). In those cases, this information is needed to demonstrate the complete chain of custody from production to blend point.*
Field 9	Party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender	9.a Name of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender 9.b Contact information of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
Field 10	Fuel Blender	10.a Name of the party responsible for blending neat CORSIA eligible fuel with aviation fuel 10.b Contact information of the party responsible for blending neat CORSIA eligible fuel with aviation fuel
Field 11	Location where neat CORSIA eligible fuel is blended with aviation fuel	
Field 12	Date the neat CORSIA eligible fuel was received by blender	
Field 13	Mass of neat CORSIA eligible fuel received (in tonnes)	*Note – This number may differ from the number in Field 5.c in cases where only a portion of a batch or batches are received by the blender (i.e. due to sale to intermediate purchaser).*
Field 14	Blend ratio of neat CORSIA eligible fuel and aviation fuel (rounded to the nearest %)	
Field 15	Documentation demonstrating that the batch or batches of neat CORSIA eligible fuel were blended into aviation fuel (e.g.,	

	the subsequent Certificate of Analysis of the blended fuel)	
Field 16	Mass of neat CORSIA eligible fuel claimed (in tonnes)	*Note – This number may differ from the number in Field 5.c in cases where only a portion of a batch or batches are claimed by the aeroplane operator.*

Appendix 5: Emissions Report from a State to ICAO for 2019 and 2020

Field #	*Data Field*	*Details*
Field 1	Total annual CO_2 emissions per State pair aggregated for all aeroplane operators attributed to the State (in tonnes)	*Note. – Include emissions from CORSIA eligible fuels, calculated using fuel conversion factor(s) from corresponding aviation fuels, in accordance with 2.27.*

Appendix 6: Emissions Report from a State to ICAO Annually after 2021

Field #	*Data Field*	*Details*
Field 1	Total annual CO_2 emissions on each State pair aggregated for all aeroplane operators attributed to the State	1.a Total annual CO_2 emissions on each State pair subject to offsetting requirements aggregated for all aeroplane operators attributed to the State (in tonnes) 1.b Total annual CO_2 emissions on each State pair not subject to offsetting requirements, aggregated for all aeroplane operators attributed to the State (in tonnes)
Field 2	Total annual CO_2 emissions for each aeroplane operator attributed to the State	2.a Total annual CO_2 emissions for each aeroplane operator attributed to the State (in tonnes) 2.b Indicate whether the ICAO CORSIA CO_2 Estimation and Reporting Tool (CERT) is used
Field 3	Total aggregated annual CO_2 emissions for all State pairs subject to offsetting requirements for each aeroplane operator attributed to the State (in tonnes)	
Field 4	Total aggregated annual CO_2 emissions for all State pairs not subject to offsetting requirements for each aeroplane operator attributed to the State (in tonnes)	

Appendix 7: CORSIA Eligible Fuels Supplementary Information to the Emissions Report from a State to ICAO

Field #	*Data Field*	*Details*
Field 1	Production	1.a Production year of CORSIA eligible fuel claimed 1.b Producer of CORSIA eligible fuel
Field 2	Batch of CORSIA eligible fuel	2.a Batch number(s) of each CORSIA eligible fuel claimed 2.b Total mass of each batch of CORSIA eligible fuel claimed (in tonnes)
Field 3	CORSIA eligible fuel claimed	3.a Fuel types (i.e., type of fuel, feedstock and conversion process) 3.b Total mass of the neat CORSIA eligible fuel (in tonnes) per fuel type being claimed by all the aeroplane operators attributed to the State
Field 4	Emissions information (per fuel type)	4. Total emissions reductions claimed from the use of a CORSIA eligible fuel (in tonnes)
Field 5	Emissions reductions (total)	5. Total emissions reductions claimed by all aeroplane operators attributed to the State from the use of all CORSIA eligible fuel use (in tonnes)

Appendix 8: Requirements for Conducting the Verification

The verification team shall conduct the verification according to ISO 14064-3:2006, and the following additional requirements.

3.1 Level of assurance (ISO 14064-3:2006 section 4.3.1)

A reasonable level of assurance shall be required for all verifications under this Requirement.

3.2 Objectives (ISO 14064-3:2006 section 4.3.2)

3.2.1 When conducting the verification of an Emissions Report, the verification body shall perform sufficient procedures to conclude whether:

(a) The greenhouse gas assertion is materially fair and an accurate representation of emissions over the period of the Emissions Report and is supported by sufficient and appropriate evidence;

(b) The aeroplane operator has monitored, quantified and reported its emissions over the period of the Emissions Report in accordance with this Requirement and the approved Emissions Monitoring Plan;

(c) The aeroplane operator has correctly applied the method of flight attribution documented in the approved Emissions Monitoring Plan and in accordance with 1.8, to ensure a correct attribution of leased aeroplane and international flights operated by other aeroplane operators under the same corporate structure;

(d) The stated amount of emissions reductions from the use of CORSIA eligible fuels is materially fair and an accurate representation of emissions reductions over the reporting period, and is supported by sufficient and appropriate internal and external evidence;

(e) The claimed batches of CORSIA eligible fuels have not also been claimed by the aeroplane operator under any other voluntary or mandatory schemes it has participated in (where the emissions reductions from CORSIA eligible fuels may be claimed), during the current compliance period, as well as the compliance period immediately preceding it; and

(f) The aeroplane operator has monitored, calculated and reported its emissions reductions associated from the use of CORSIA eligible fuels over the period of the reporting period in accordance with this Requirement.

3.2.2 When conducting the verification of an Emissions Unit Cancellation Report, the verification body shall perform sufficient procedures to conclude whether:

(a) The aeroplane operator has accurately reported cancellations of its CORSIA Eligible Emissions Units in accordance with this Requirement;

(b) The stated number of cancelled CORSIA Eligible Emissions Units is sufficient for meeting the aeroplane operator's total final offsetting requirements associated with the relevant compliance period, after accounting for any claimed emissions reductions from the use of CORSIA eligible fuels, and the aeroplane operator can demonstrate sole right of use to such cancelled CORSIA Eligible Emissions Units; and

(c) The eligible emissions units cancelled by the aeroplane operator to meet its offsetting requirements under this Requirement have not been used by the aeroplane operator to offset any other emissions.

3.3 Scope (ISO 14064-3:2006 section 4.3.4)

3.3.1 When conducting the verification of an Emissions Report, the scope of the verification shall reflect the period of time and information covered by the report and the CORSIA eligible fuels claim(s) where applicable. This includes:

(a) CO_2 emissions from aeroplane fuel monitoring methods, calculated in accordance with Chapter 2; and

(b) Emissions reductions from the use of CORSIA eligible fuel(s).

3.3.2 The scope of the verification of the CORSIA eligible fuel claim(s) in the Emissions Report shall include the following:

(a) Any internal aeroplane operator procedures for CORSIA eligible fuels, including aeroplane operator controls to ensure the claimed CORSIA eligible fuels satisfies the CORSIA Sustainability Criteria;

(b) Checks for double claiming are limited to the specific aeroplane operator. Any findings outside of this scope are not relevant for the verification statement,

however they should still be included in the Verification Report for further consideration by the State;

(c) Assessment of verification risk with appropriate changes to the verification plan; and

(d) Assessment of whether there is sufficient access to relevant internal and external information to obtain sufficient confidence in each CORSIA eligible fuel claim. Where evidence of the sustainability or the size of the CORSIA eligible fuels claim is considered either inappropriate or insufficient, further information should be sought directly from the fuel producer with direct access facilitated through the aeroplane operator.

3.3.3 When conducting the verification of an Emissions Unit Cancellation Report, the scope of the verification shall reflect the period of time and information covered by the report and the verification body shall confirm that the cancelled eligible emissions units used to meet the aeroplane operator's offsetting requirements under this Requirement have not been used to offset any other emissions.

3.4 Materiality (ISO 14064-3:2006 section 4.3.5)

3.4.1 When conducting the verification of an Emissions Report, the verification body shall apply the following materiality thresholds:

(a) Of 2 per cent for aeroplane operators with annual emissions on international flights subject to Chapter 2, Chapter 3, and Chapter 4 requirements above 500 000 tonnes; and

(b) Of 5 per cent for aeroplane operators with annual emissions on international flights subject to Chapter 2, Chapter 3, or Chapter 4 requirements equal or less than 500 000 tonnes of CO_2.

3.4.2 When conducting the verification of an Emissions Report, the over and understatements in 3.4.1 shall be allowed to balance out in both cases.

3.5 General (ISO 14064-3:2006 section 4.4.1)

Prior to the development of the verification approach, the verification body shall assess the risk of misstatements and non-conformities and their likelihood of a

material effect on the basis of a strategic analysis of the aeroplane operator's greenhouse gas emissions information[1]. Depending on the information obtained during the verification, the verification body shall revise the risk assessment and modify or repeat the verification activities to be performed.

3.6.2 The verification plan shall include the following:

(a) Verification team members, roles, responsibilities and qualifications;

(b) Any external resources required;

(c) Schedule of verification activities; and

(d) Sampling plan, including the processes, controls and information to be verified and details of the risk assessment conducted to identify these.

3.7 Sampling plan (ISO 14064-3:2006 section 4.4.3)

3.7.1 The Emissions Report sampling plan shall include the following:

(a) Number and type of records and evidence to be examined;

(b) Methodology used to determine a representative sample; and

(c) Justification for the selected methodology.

3.7.2 When conducting the verification of an Emissions Unit Cancellation Report, the verification body shall not rely on sampling.

3.8 Assessment of GHG data and information (ISO 14064-3:2006 section 4.6)

3.8.1 The verification team shall confirm that the Emissions Report data has been collected in accordance with the approved Emissions Monitoring Plan and monitoring requirements specified in this Requirement.

3.8.2 In accordance with the Emissions Report sampling plan, the verification body shall carry out substantive data testing consisting of analytical procedures and data verification to assess the plausibility and completeness of data. The verification team shall, as a minimum, assess the plausibility of fluctuations and

[1] Definitions of strategic analysis and the assessment of risks are contained in the IAF Mandatory Document for the Application of ISO 14065: 2013, Issue 2 (IAF MD 6:2014).

trends over time or between comparable data items as well as identify and assess immediate outliers, unexpected data, anomalies, and data gaps.

3.8.3 Depending on the outcome of Emissions Report data testing and assessment, the assessment of risk, verification and sampling plans shall be amended, where necessary.

3.9 Evaluation of the GHG assertion (ISO 14064-3:2006 section 4.8)

3.9.1 The verification body shall use an independent reviewer not involved in the verification activities to assess the internal verification documentation, and the Verification Report, prior to its submission to the aeroplane operator and State.

3.9.2 The independent review, whose scope includes the complete verification process, shall be recorded in the internal verification documentation.

3.9.3 The independent review shall be performed to ensure that the verification process has been conducted in accordance with ISO 14065:2013, ISO 14064-3:2006 and this Requirement, and that the evidence gathered is appropriate and sufficient to enable the verification body to issue a Verification Report with reasonable assurance.

3.10 Validation and verification statement (ISO 14064-3:2006 section 4.9)

3.10.1 The verification body shall submit a copy of the Verification Report to the aeroplane operator. Upon authorization by the aeroplane operator, the verification body shall forward a copy of the Verification Report together with the Emissions Report, the Emissions Unit Cancellation Report, or both, to the State. The Verification Report shall include:

(a) Names of the verification body and verification team members;

(b) Time allocation (including any revisions and dates);

(c) Scope of the verification;

(d) Main results of impartiality and avoidance of conflict of interest assessment;

(e) Criteria against which the Emissions Report was verified;

(f) Aeroplane operator information and data used by the verification body to cross-check data and carry out other verification activities;

(g) Main results of the strategic analysis and assessment of risk;

(h) Description of verification activities undertaken, where each was undertaken (on-site vs offsite) and results of checks made on the CO2 emissions information system and controls;

(i) Description of data sampling and testing conducted, including records or evidence sampled, sample size, and sampling method(s) used;

(j) The results of all data sampling and testing, including cross-checks;

(k) Compliance with the Emissions Monitoring Plan;

(l) Any non-compliances of the Emissions Monitoring Plan with this Requirement;

(m) Non-conformities and misstatements identified (including a description of how these have been resolved);

(n) Conclusions on data quality and materiality;

(o) Conclusions on the verification of the Emissions Report;

(p) Conclusions on the verification of the Emissions Unit Cancellation Report;

(q) Justifications for the verification opinion made by the verification body;

(r) Results of the independent review and the name of the independent reviewer; and

(s) Concluding verification statement.

3.10.2 When conducting the verification of an Emissions Unit Cancellation Report, only 3.10.1 (a), (b), (c), (d), (f), (g), (h), (m), (p), (q), (r) and (s) shall be applicable.

3.10.3 The verification body shall provide a conclusion on each of the verification objectives listed in 3.2, as applicable, in the concluding verification statement.

3.10.4 When conducting the verification of an Emissions Report or an Emissions Unit Cancellation Report, the verification body shall choose between two types of verification opinion statements, either 'verified as satisfactory' or 'verified as not satisfactory'. If the report includes non-material misstatements and / or non-material non-conformities, the report shall be 'verified as satisfactory with comments', specifying the misstatements and non-conformities. If the report contains material misstatements and / or material non-conformities, or if the scope of the verification is too limited or the verification body is not able to obtain sufficient confidence in the data, then the report shall be 'verified as not satisfactory'.

3.11 Validation or verification records (ISO 14064-3:2006 section 4.10)

3.11.1 On request of BRUNEI DCA, the verification body shall disclose the internal verification documentation on a confidential basis to the BRUNEI DCA.

3.11.2 Where issues that may render a previously issued verification statement invalid or inaccurate are brought to the attention of the verification body, then it shall notify BRUNEI DCA.

Appendix 9: Requirements for a Verification Body

1. INTRODUCTION

Note *– The procedures specified in this Appendix are concerned with the verification requirements in Chapter 4 of this Requirement.*

2. VERIFICATION BODY

2.1. The verification body shall be accredited to ISO 14065:2013, and meet the following additional requirements in order to be eligible to verify the Emissions Report, and the Emissions Unit Cancellation Report where applicable, of an aeroplane operator.

Note *– The following documents should be used as normative references that provide guidance for the application of this Requirement:*

(a) Environmental Technical Manual (Doc 9501), Volume IV – Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA);

(b) The International Accreditation Forum (IAF) document entitled, "IAF Mandatory Document for the Application of ISO 14065:2013 (IAF MD 6:2014)"; and

(c) The International Organization for Standardization (ISO) document entitled, "ISO 14066:2011 Greenhouse gases – Competence requirements for greenhouse gas validation team and verification teams".

2.2. Avoidance of conflict of interest (ISO 14065:2013 section 5.4.2)

2.2.1. If the leader of the verification team undertakes six annual verifications for one aeroplane operator, then the leader of the verification team shall take a three consecutive year break from providing verification services to that same aeroplane operator. The six years maximum period includes any greenhouse gas verifications performed for the aeroplane operator prior to it requiring verification services under this Requirement.

2.2.2. The verification body, and any part of the same legal entity, shall not be an aeroplane operator, the owner of an aeroplane operator or owned by an aeroplane operator.

2.2.3. The verification body, and any part of the same legal entity, shall not be a body that trades emissions units, the owner of a body that trades emissions units or owned by a body that trades emissions units.

2.2.4. The relationship between the verification body and the aeroplane operator shall not be based on common ownership, common governance, common management or personnel, shared resources, common finances and common contracts or marketing.

2.2.5. The verification body shall not take over any delegated activities from the aeroplane operator with regard to the preparation of the Emissions Monitoring Plan, the Emissions Report (including monitoring of fuel use and calculation of CO_2 emissions) and the Emissions Unit Cancellation Report.

2.2.6. To enable an assessment of impartiality and independence by the national accreditation body, the verification body shall document how it relates to other parts of the same legal entity.

2.3. Management and personnel (ISO 14065:2013 section 6.1)

2.3.1. The verification body shall establish, implement and document a method for evaluating the competence of the verification team personnel against the competence requirements outlined in ISO 14065:2013, ISO 14066:2011 and paragraphs 2.4, 2.5 and 2.6 of this Appendix.

2.3.2. The verification body shall maintain records to demonstrate the competency of the verification team and personnel in accordance with paragraph 2.4 of this Appendix.

2.4. Competencies of personnel (ISO 14065:2013 section 6.2)

The verification body shall:

(a) Identify and select competent team personnel for each engagement;

(b) Ensure appropriate verification team composition for the aviation engagement;

(c) Ensure the verification team, at a minimum, includes a team leader who is responsible for the engagement planning and management of the team;

(d) Ensure continued competence of all personnel conducting verification activities, including continual professional development and training for verifiers to maintain and/or develop competencies; and

(e) Conduct regular evaluations of the competence assessment process to ensure that it continues to be relevant for this Requirement.

2.5. Validation or verification team knowledge (ISO 14065:2013 section 6.3.2)

2.5.1. The verification team as a whole, and the independent reviewer, shall demonstrate knowledge of:

(a) The requirements as outlined in this Requirement, the Assembly Resolution A39-3, the Environmental Technical Manual (Doc 9501), Volume IV – Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), and any public ICAO explanatory material;

(b) The verification requirements as outlined in this Requirement, and 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 and the Verification Report preparation and submission requirements;

(c) The eligibility criteria for technical exemptions, scope of applicability, State pair phase-in rules, and State pair coverage as outlined in this Requirement and the Assembly Resolution A39-3;

(d) The monitoring requirements as outlined in this Requirement; and

(e) The national requirements in addition to the provisions set out in this Requirement.

2.5.2. When conducting the verification of an Emissions Unit Cancellation Report, only 2.5.1 (a), (b) and (e) shall be applicable.

2.6. Validation or verification team technical expertise (ISO 14065:2013 section 6.3.3)

2.6.1. The verification team as a whole, and the independent reviewer, shall demonstrate knowledge in the following technical competencies:

(a) General technical processes in the field of civil aviation;

(b) Aviation fuels and their characteristics, including CORSIA eligible fuel;

(c) Fuel related processes including flight planning and fuel calculation;

(d) Relevant aviation sector trends or situations that may impact the CO_2 emissions estimate;

(e) CO_2 emissions quantification methodologies as outlined in this Requirement, including assessment of Emissions Monitoring Plans;

(f) 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 such measurement devices;

(g) Greenhouse gas information and data management systems and controls, including quality management systems and quality assurance / quality control techniques;

(h) Aviation related IT systems such as flight planning software or operational management systems;

(i) Knowledge of approved CORSIA Sustainability Certification Schemes relevant for CORSIA eligible fuels under this Requirement, including certification scopes; and

(j) Basic knowledge of greenhouse gas markets and emissions units programme registries.

2.6.2. Evidence of the above competencies shall include proof of relevant professional experience, complemented by appropriate training and education credentials.

2.6.3. When conducting the verification of an Emissions Report, 2.6.1 (a) to (i) shall be applicable.

2.6.4. When conducting the verification of an Emissions Unit Cancellation Report, only 2.6.1 (g) and (j) shall be applicable.

2.7. Validation or verification team data and information auditing (ISO 14065:2013 section 6.3.4)

2.7.1. The verification team as a whole shall demonstrate detailed knowledge of ISO 14064- 3:2006, including demonstrated ability to develop a risk-based verification approach, perform verification procedures including assessing data and information systems and controls, collect sufficient and appropriate evidence and draw conclusions based on that evidence.

2.7.2 Evidence of data and information auditing expertise and competencies shall include previous professional experience in auditing and assurance activities, complemented by appropriate training and education credentials.

2.8. Use of contracted validators and verifiers (ISO 14065:2013 section 6.4)

The verification body shall document roles and responsibilities of the verification personnel, including contracted persons involved in the verification activity.

2.9. Outsourcing (ISO 14065:2013 section 6.6)

2.9.1. The verification body shall not outsource the final decision on the verification and the issuance of the verification statement.

2.9.2. The independent review shall only be outsourced as long as the outsourced service is appropriate, competent, and covered by the accreditation.

2.10. Confidentiality (ISO 14065:2013 section 7.3)

The verification body shall ensure it has the express consent of the aeroplane operator prior to submission of the verified Emissions Report, the Emissions Unit Cancellation Report where applicable, and the Verification Report to BRUNEI DCA. The mechanism for authorizing this consent shall be specified in the contract between the verification body and aeroplane operator.

2.11. Records (ISO 14065:2013 section 7.5)

The verification body shall keep records on the verification process for a minimum of ten years, including:

(a) Client's Emissions Monitoring Plan, Emissions Report and Emissions Unit Cancellation Report where applicable;

(b) Verification Report and related internal documentation;

(c) Identification of team members and criteria for selection of team; and

(d) Working papers with data and information reviewed by the team in order to allow for an independent party to assess the quality of the verification activities and conformance with verification requirements.

2.12. Agreement (ISO 14065:2013 section 8.2.3)

The contract between verification body and aeroplane operator shall specify the conditions for verification by stating:

(a) Scope of verification, verification objectives, level of assurance, materiality threshold and relevant verification standards (ISO 14065, ISO 14064-3, this Requirement and the Environmental Technical Manual, Volume IV);

(b) Amount of time allocated for verification;

(c) Flexibility to change time allocation if this proves necessary because of findings during the verification;

(d) Conditions which have to be fulfilled to conduct the verification such as access to all relevant documentation, personnel and premises;

(e) Requirement of the aeroplane operator to accept the audit as a potential witness audit by national accreditation body's assessors;

(f) Requirement of the aeroplane operator to authorize the release of the Emissions Report, the emissions Unit Cancellation Report, where applicable, and the Verification Report by the verification body to BRUNEI DCA; and

(g) Liability coverage.