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ClassNK

一般財団法人　日本海事協会
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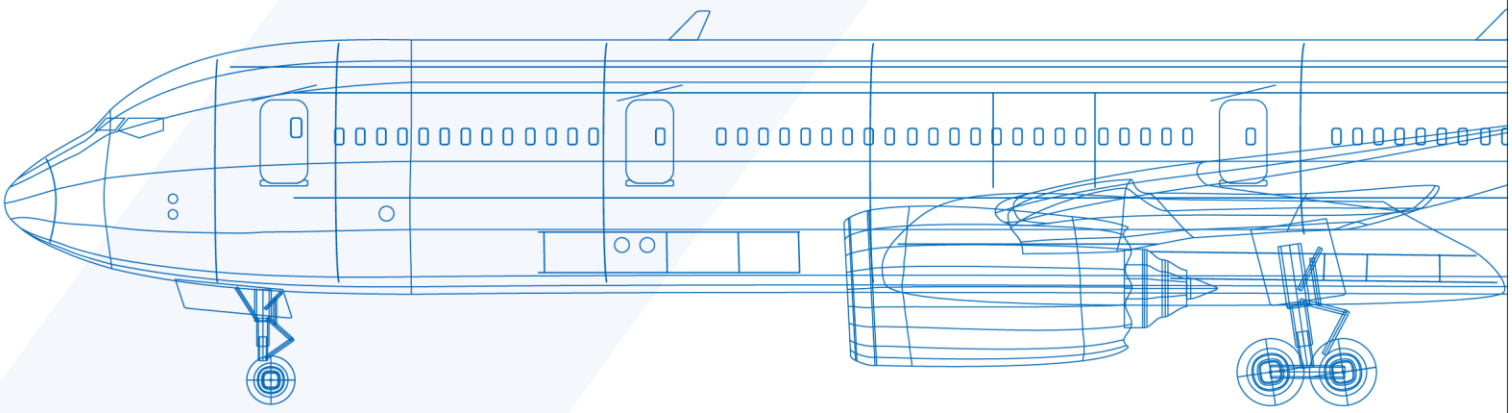
ClassNK SCS

APPENDIX 4

Certification for CORSIA Eligible Fuels

April 2024



Revision History

No.	Issue date	Details of revision
0	2024.04.01	Newly issued

In case the requirements in ICAO-CORSIA documents are updated, and the ClassNK SCS manual has not been revised to reflect such updates yet, the updated requirements shall be applied during verification irrespective of the state of revision of the ClassNK SCS manual.

APPENDIX 4. Transmission of information in the supply chain

Contents

1. Introduction

Transmission of sustainability information is crucial along the supply chain as to build transparency, allowing all economic operators in the supply chain to comprehend how sustainable materials are sourced, manufactured, and distributed. This transparency fosters trust among businesses, consumers, and regulators. ICAO CORSIA required the economic operators to transmit the sustainability information as specified in Annex 16, Volume IV, Part II, Appendix 5, Table A5-2. Understanding the sustainability practices of each supply chain actor helps SCS identify potential risks in the supply chain, such as reliance on unsustainable feedstock. Transferring sustainability information, particularly greenhouse gas (GHG) values, along the supply chain is vital for computing lifecycle emissions in line with the ICAO CORSIA requirements. CORSIA aims to stabilize CO_2 emissions from international aviation by requiring airlines to offset any growth in emissions through purchasing carbon credits or investing in projects that reduce emissions. By tracking and transferring greenhouse gas (GHG) values, each economic operator in the supply chain contributes to a detailed understanding of the sustainable materials' total environmental impact from production to combustion in the aircraft engine. This comprehensive data allows for accurate calculation of life cycle emissions, highlighting areas where emissions are highest and identifying opportunities for reductions. Furthermore, it enables economic operators to quantify and report their emission savings effectively. This is crucial for meeting CORSIA's requirements, as it provides a transparent and standardized method for airlines and related industries to demonstrate commitment in reducing carbon footprint, helping the aviation sector move towards more sustainable operations.

2. Scope

This document is established a mechanism to relay sustainability information typically encompasses several key areas to ensure accuracy, transparency, and compliance with SCS and ICAO CORSIA's requirements. These procedures are crucial for maintaining the integrity and reliability of the sustainability information communicated across the supply chain. The stipulations presented in this document are applicable worldwide.

3. Normative References

All references should be made to ICAO CORSIA requirements.

4. Interpretations & General Requirements

A description of all elements of the supply chain relevant to this standard is provided in Supplement.

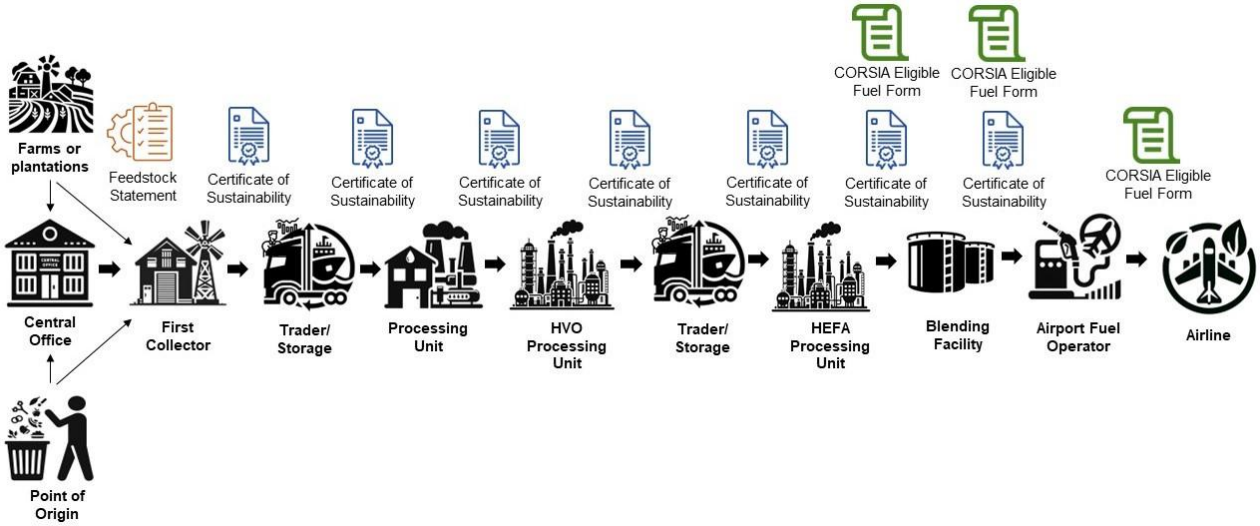


Figure 1.0 Exemplary SCS Supply Chain

4.1 Feedstock Statement

Farms or plantations and points of origin of waste, residue and by-product materials may gain individual certification on a voluntary basis. They can opt to get certified individually or independently as group with Central Office. The obligation for individual certification according to SCS starts with the First Collector.

Farms or plantations points of origin of waste, residue and by-product materials that are not certified individually or independently as group with Central Office must conduct an annual self-assessment and provide a signed Feedstock Statement to the Central Office (for group certification) or First Collector. Feedstock Statement template provided by SCS should be used. Feedstock Statement can be issued based on each delivery or contractual. The Feedstock Statement should have 12-calendar month.

4.2 Certificate of Sustainability

SCS required the certified economic operators to issue Certificate of Sustainability to transfer sustainability information of the sustainable materials to next economic operators in the supply chain. Physical deliveries of sustainable should be accompanied with Certificate of Sustainability. Exclusion been made to farms or plantations and points of origins that been certified under First Collector. The issuance of Certificate of Sustainability is interrelated with the chain of custody models applied by the economic operators, i.e., mass balance (MB). Certificate of Sustainability only refers to sustainable materials physically delivered and should be from same product groups which by definitions sustainable materials that possessing similar chemical or physical attributions, conversion factors, heating values, etc. The issuance of Certificate of Sustainability should be issued from a certified economic operator at the point of physical dispatch of the sustainable materials. The buyer is mandatorily required to verify the validity of the supplier's SCS certificate during the

engagement period and also at the point (date) of physical dispatch of the sustainable materials. The certificate databased should be available in SCS official website. Economic operator is required to contact SCS in case of uncertainties.

In instances of inaccurate information, the supplier (issuing party) retains the ability to annul or amend a Certificate of Sustainability, provided the recipient hasn't utilized (i.e., forwarded) the erroneous Certificate of Sustainability and has duly adjusted or removed the corresponding data from their mass balance. The supplier issuing the Certificate of Sustainability is obligated to notify the recipient, their respective Certification Body (CB), and SCS in writing regarding their intention to cancel or modify one or several specific Certificates of Sustainability. The recipient's Certification Body (CB) must then officially acknowledge the receipt and documentation of the request to the supplier, their Certification Body (CB), and SCS. Post confirmation, the supplier is permitted to distribute the revised Certificate of Sustainability. Additionally, the supplier's Certification Body (CB) must record a nonconformity in the external audit process of the supplier (for providing incorrect data to recipients). During the ensuing scheduled external audit, the recipient's Certification Body (CB) must confirm that the Certificate of Sustainability were either annulled or amended in the recipient’s mass balance. In scenarios where the supplier or recipient switches their CB for the forthcoming audit, the newly engaged Certification Body (CB) must be properly informed to ensure that the specific transactions are examined in the next scheduled external audit.

Certificates of Sustainability can be consolidated for multiple shipments of batches sharing identical sustainability criteria under a single contract. In these instances, the entire delivery timeframe should be clearly indicated on the Certificate of Sustainability, not exceeding thirty (30) calendar days. Each separate delivery must be substantiated through weighbridge tickets or equivalent documents to validate the total quantity and delivery dates of the entire batch. Issuing multiple Certificates of Sustainability for a single batch of material is prohibited. No multiple Certificates of Sustainability should be issued for the same batch of sustainable materials.

Certificate of Sustainability are mandated to incorporate the information outlined in this document. Nonetheless, no specific guidelines are provided for the format or design of the Certificate of Sustainability. This presents two options for a certified economic operators in the supply chain: either to devise a template for a delivery note that encompasses all necessary sustainability data or to append a document with the required sustainability information to the prevailing delivery note templates (such as using an addendum).

Typically, the recipient of a Certificate of Sustainability can have confidence in the accuracy of data received from certified suppliers. When the recipient of the Certificate of Sustainability has shown due diligence through confirming the legitimacy of the supplier’s certificate and examining the received Certificate of Sustainability for thoroughness and accuracy as previously mentioned, the data furnished on the incoming Certificate of Sustainability is considered to be under the protection of trust.

All incoming sustainable material must have a Certificate of Sustainability that includes the following details:

- Supplier's name and address
- Recipient's name and address
- Relevant contract number
- Reference number of Certificate of Sustainability
- Dispatch date of the sustainable material
- Dispatch/shipping point address of the sustainable material
- Receipt/receiving point address of the sustainable material
- Supplier's certificate number
- Date when the Certificate of Sustainability was issued
- Information on feedstock or product
- Origin country of the sustainable material
- Declaration of sustainability criteria of the feedstock or product
- Quantity of incoming and outgoing sustainable products (in metric tonnes or m^3 at 15°C)
- Statement of use of default core life cycle emissions value
- Actual life cycle emissions value in kg CO_{2eq} /dry-ton of product or gCO_{2eq} /MJ (depending on life cycle stage)
- For raw materials and intermediary products, life cycle emissions information in kg CO_{2eq}/dry-ton of raw material or intermediary product respectively
- For final products (CEF), emissions stated in g CO_{2eq}/MJ
- For CEF, a default ILUC value should be included along with the core life cycle emissions value, whether it's a default or actual value

4.3 CORSIA Eligible Fuel Form

Furthermore, the economic operator must convey essential information that enables airline operators to prove adherence to CORSIA sustainability criteria. This encompasses all pertinent reporting elements outlined below, for which the economic operator possesses information. The CORSIA Eligible Fuel Form template is accessible directly from the official ICAO CORSIA website. Economic operators are obliged to review this checklist, complete all sections of the template where they have information, and subsequently distribute it throughout the supply chain. The information pertains to a distinct physical quantity of material.

1) Purchase date of the neat (unblended) CORSIA eligible fuel
2) Identification of the producer of the neat CORSIA eligible fuel
    a. Name of the producer of the neat CORSIA eligible fuel
    b. Contact information of the producer of the neat CORSIA eligible fuel
3) Fuel production
    a. Production date of the neat CORSIA eligible fuel
    b. Production location of the neat CORSIA eligible fuel
    c. Batch number of each batch of neat CORSIA eligible fuel
    d. Mass of each batch of neat CORSIA eligible fuel produced
4) Fuel type
    a. Type of fuel [i.e., Jet-A, Jet-A1, Jet-B, Aviation Gasoline (AvGAS)]
    b. Feedstock used to create the neat CORSIA eligible fuel
    c. Conversion process used to create the neat CORSIA eligible fuel
5) Fuel purchased

   a. Proportion of neat CORSIA eligible fuel batch purchased (rounded to the nearest %). If less than an entire batch of CORSIA eligible fuel is purchased.
   b. Total mass of each batch of neat CORSIA eligible fuel purchased (in tonnes)
   c. Mass of neat CORSIA eligible fuel batches purchased (in tonnes; equal to the total for all batches reported in field 5b)
6) Evidence that fuel satisfies the CORSIA sustainability criteria, i.e. valid sustainability certification document
7) Life cycle emissions values of the CORSIA eligible fuel
   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_{2eq}/MJ rounded to the nearest whole number)
   b. Default or Actual Core Life Cycle Assessment (LCA) value for given CORSIA eligible fuel f (in gCO_{2eq}/MJ rounded to the nearest whole number)
   c. Default Induced Land Use Change (ILUC) value for given CORSIA eligible fuel f (in gCO_{2eq}/MJ rounded to the nearest whole number)
8) Intermediate purchaser (applicable 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)
   a. Name of the intermediate purchaser
   b. Contact information of the intermediate purchaser
9) Party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
   a. Name of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
   b. Contact information of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
10) Fuel blender
   a. Name of the party responsible for blending neat CORSIA eligible fuel with aviation fuel
   b. Contact information of the party responsible for blending neat CORSIA eligible fuel with aviation fuel
11) Location where neat CORSIA eligible fuel is blended with aviation fuel
12) Date the neat CORSIA eligible fuel was received by the blender
13) Mass of neat CORSIA eligible fuel received (in tonnes); 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)
14) Blend ratio of neat CORSIA eligible fuel and aviation fuel (rounded to the nearest %)
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)
16) Mass of neat CORSIA eligible fuel claimed (in tonnes) (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)

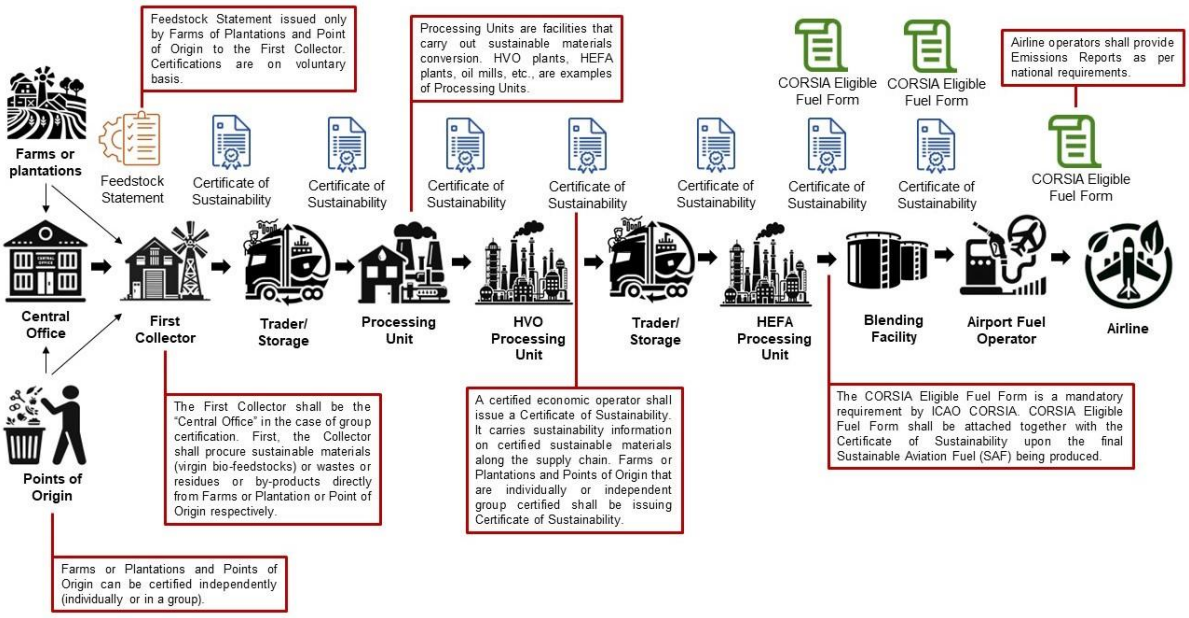


Figure 2.0 An Overview of Sustainability Information Transmission

Supplement – Economic Operators Classification

Farms or Plantations:
These are the primary producers of biomass. They grow crops or maintain plantations that produce biomass intended for sustainable materials production. They can be certified individually on a voluntary basis or under group certification. A group certification can be represented by the one of the following:

1. Central Office for Point of Origins (POO) as independent group certification
2. Central Office for farms and plantations as independent group certification
3. First Collector as Central Office for Point of Origins (POO)
4. First Collector as Central Office for farms and plantations

Point of Origin:
This refers to the economic operators that produce waste, residues, or by-products qualifying under the CORSIA definition of sustainable feedstock. According to CORSIA, these materials are non-food and non-feed biomass, including agricultural, forestry, and processing residues, non-recyclable municipal waste, etc., utilized in sustainable fuel production without competing with food resources.

First Collector:
These operators procure biomass directly from farms or plantations. In another scenario, they acquire waste, residues, or by-products from the point of origin. They play a critical intermediary role, aggregating biomass from various sources and supplying it to processors or traders.

Trader:
Traders are involved in the trade of sustainable materials but do not physically handle these materials. They hold legal ownership of sustainable materials and are involved in their trade, often acting as intermediaries between producers and end-users or processors. Can be known as “paper trader”.

Trader with Storage:
Similar to traders, but these operators physically handle sustainable materials, including storage. The storage facilities might be owned by third parties. These traders are responsible for maintaining the quality and integrity of the stored materials. If the trader with storage is involved in blending operations, like blending fossil fuel with sustainable aviation fuel, their scope shall be extended to manage the blending and decanting processes.

HVO (Hydrotreated Vegetable Oil) Plant:
These facilities process vegetable oils and animal fats into Sustainable Aviation Fuel (SAF) through a hydrotreating process. They are crucial in converting sustainable materials into a form suitable for aviation use, ensuring the fuel meets necessary specifications and standards.

HEFA (Hydroprocessed Esters and Fatty Acids) Plant:
Similar to HVO plants, HEFA plants process feedstocks like vegetable oils, waste oils, and fats into renewable jet fuel through hydroprocessing.

Airport Fuel Operator:
These operators manage the receipt, storage, and distribution of aviation fuels, including sustainable aviation fuel, at airports. They ensure that the fuel supplied to aircraft meets quality standards and is safely and efficiently distributed. They are part of the airline and individual certification as "trader with storage" is optional unless a change in legal ownership of sustainable materials took place.

Airline:
Airlines are the end-users of sustainable aviation fuels. Although they are not subject to direct certification within the supply chain, their fuel procurement choices significantly impact the demand for Sustainable Aviation Fuel (SAF). Airlines play a crucial role in driving demand for Sustainable Aviation Fuel (SAF) through their sustainability commitments and fuel procurement policies.

Transport:
This involves the transportation of biomass, intermediate products, and final Sustainable Aviation Fuel (SAF) products through various modes like trucks, pipelines, or ships. While not subject to certification, transport operators are essential for the efficient and safe movement of materials along the supply chain. Other economic operators shall ensure the relevant commercial documents related to transport shall be made available during the certification audit.

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