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ClassNK

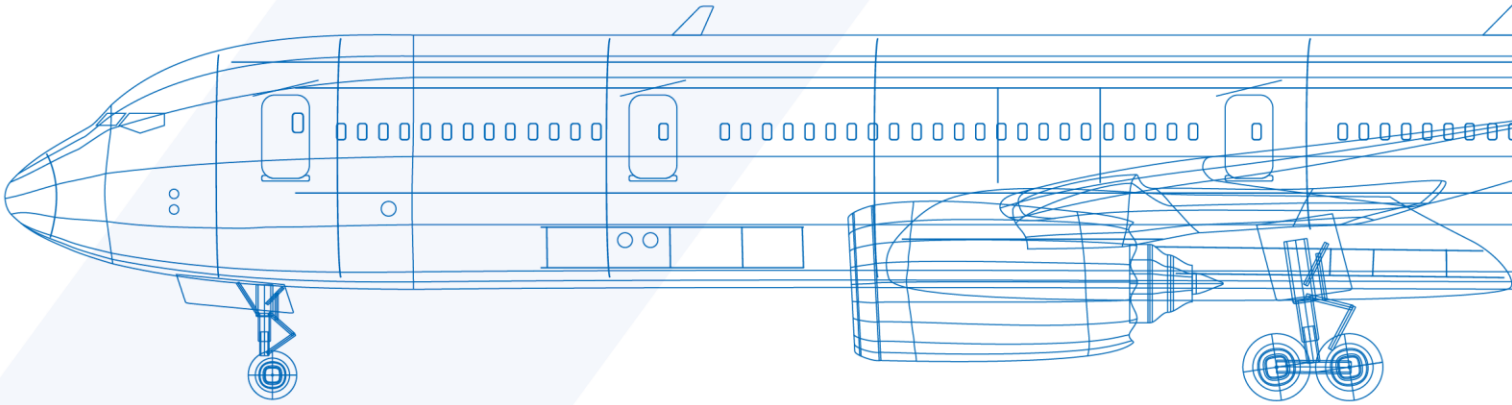
一般財団法人　日本海事協会
NIPPON KAIJI KYOKAI

ClassNK SCS

APPENDIX 2

Certification for CORSIA SAF

May　2026



Revision History

No.	Issue date	Details of revision
0	2024.04.01	Newly issued
1	2026.05.01	Revised to align with and reflect ICAO documents

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 2. Application of sustainability criteria

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1. Introduction

CORSIA sustainability criteria for CORSIA eligible fuel made the necessity for Sustainable Aviation Fuel (SAF) to significantly reduce life-cycle greenhouse gas emissions compared to conventional jet fuels, aiming for a minimum reduction threshold. It also mandates sustainable biomass sourcing, ensuring that feedstocks do not contribute to deforestation, biodiversity loss, or adverse impacts on food and water security. The criteria underscore the importance of protecting high conservation value areas and avoiding the conversion of high carbon stock lands. Moreover, they incorporate social and economic aspects, requiring that Sustainable Aviation Fuel (SAF) production supports local communities, respects human rights, and provides economic benefits while upholding labour standards. The criteria also focus on protecting water and soil resources, minimizing air pollution, and managing waste and chemicals responsibly. Compliance with local and international laws is a prerequisite, and there is a strong emphasis on implementing robust systems for monitoring, reporting, and verifying adherence to these criteria. Overall, the document provides a comprehensive framework to ensure that Sustainable Aviation Fuel (SAF) contributes to the global goal of reducing aviation's carbon footprint in an environmentally sustainable and socially responsible manner.

2. Scope

This document outlines the sustainability criteria that are applicable and valid for all economic operators in the SCS supply chain. It applies to all types of sustainable materials derived from forestry, agriculture, aquaculture, and mariculture-based feedstock (raw materials). This includes for all sorts of residues been produced in the abovementioned industries. The sustainability criteria is set for all batches of CORSIA SAF produced by a certified economic operators on or after 1st January 2024.

The scope of certification audit of this compliance is divided into four sets of themes:

a) Themes 1 to 3:
These themes shall be directly assessed as per the requirements set by ClassNK SCS.

b) Themes 4 to 8:
The ClassNK SCS assesses compliance with these themes while considering the guidance approved by the ICAO CORSIA as detailed in the in the "Guidance to Sustainability Certification Scheme (SCS) for application of CORSIA Sustainability Criteria, Themes 4 to 8".
Note 1: Prior to an ClassNK SCS conducting an assessment in a State in which it never operated before, the ClassNK SCS will consult with the competent authority of the State concerned, if required, in order to discuss the detailed process of assessment and for the ClassNK SCS to be fully aware of the national and local requirements applying to the production of SAF. In the case of States that establish such requirement, the assessment by ClassNK SCS will only take place after such consultations and common written agreement between the competent authority and ClassNK SCS on the detailed process of assessment by the ClassNK SCS.
Note 2: In the case of diverging approaches between the competent authority and the ClassNK SCS, the Member State concerned may refer the matter to the ICAO Council to review the disagreement relating to the interpretation and application of the guidance for Themes 4 to 8. The review may include the support of relevant UN domain experts, as appropriate, on the request of the Member State. The Member State concerned will participate in this review process.

c) Themes 9:
This theme will be assessed based on the requirements established by ClassNK SCS, pending the issuance of relevant ICAO guidance.

d) Compliance with Themes 10, 11 and 12 can be demonstrated to the ClassNK SCS by a national attestation from the State in whose territory the SAF is produced, without further assessment by the ClassNK SCS.

e) Compliance with Themes 13 and 14 will be demonstrated to the ClassNK SCS by the economic operator reporting to the ClassNK SCS the actions being taken to meet the related criteria, without further judgement of those actions by the ClassNK SCS.

CORSIA sustainability criteria for CORSIA SAF does not set a precedent for, or prejudge the outcome of negotiations in other fora.

3. Normative References

All references should be made to ICAO CORSIA requirements.

Theme 1: Greenhouse Gases (GHG)

Economic operators should prove that their CORSIA SAF provides a net reduction in greenhouse gas (GHG) emissions by at least 10% on a life cycle basis, compared to standard aviation fuel baseline emissions. These baseline values are established at 89 gCO_{2eq}/MJ for jet fuel and 95 gCO_{2eq}/MJ for aviation gasoline. The total life cycle GHG emission value for a specific SAF must be calculated by adding the core Life Cycle Assessment (LCA) value and the Indirect Land Use Change (ILUC) value. Maximizing energy efficiency is crucial for climate protection.

Theme 2: Carbon Stock

Principle: CORSIA eligible fuel should not be made from biomass obtained from land with high carbon stock.

Criterion 2.1: CORSIA eligible fuel will not be made from biomass that is either obtained from land converted after 1 January 2008 that was primary forest, wetlands, or peat lands or contributes to degradation of the carbon stock in primary forests, wetlands, or peat lands as these lands all have high carbon stocks.

Criterion 2.2: In the event of land use conversion after 1 January 2008, as defined based on the Intergovernmental Panel on Climate Change (IPCC) land categories, direct land use change (DLUC) emissions will be calculated. If DLUC greenhouse gas emissions exceed the default induced land use change (ILUC) value, the DLUC value will replace the default ILUC value.
This calculation is done per the methodology in Section 7 of Appendix 5. and is carried out during feedstock cultivation.

Reference: Reliable tools and databases could be utilized to accurately determine high carbon stock systems and assist in establishing risk levels for auditing purposes such as Ecoinvent, GREET, REDD+ Database, Land Use and Carbon Scenario Explorer (LUCAS), Global Risk Assessment Services (GRAS), FAO Global Forest Resources Assessments (FRA), etc.

Theme 3: Greenhouse gas Emissions Reduction Permanence

Whenever carbon capture and sequestration (CCS) technology is used in the process of CORSIA SAF production, the operator should demonstrate that operational practices will be implemented to monitor, mitigate and compensate any material incidence of non-permanence resulting from CCS activities. Emissions reductions attributed to CORSIA SAF should be permanent. In this context, economic operators will implement measures to monitor, mitigate, and offset any significant

instances of non-permanence arising from carbon capture and sequestration (CCS) activities. Upon ICAO's approval of a CCS methodology in the context of CORSIA SAF production and its applicability under ClassNK SCS, ClassNK SCS will then refer to ICAO guidance on ensuring and verifying the permanence of emissions reductions as part of SCS.

Theme 4: Water

Criterion 4.1 General

Production of CORSIA SAF should maintain or enhance water quality and availability. The economic operator is required to present proof that they will enact operational practices aimed at preserving or improving water quality. Additionally, they should demonstrate that these practices will be geared towards efficient water usage and preventing the overuse of surface or groundwater resources beyond their natural replenishment rates. These may include water recycling & reuse, rainwater harvesting, drip irrigation, water saving technologies, water usage monitoring & best management practices implemented, comprehensive water management plan, etc. The water management plan will:

a) Outline procedures for the reuse or recycling of wastewater, tailored to the scale and intensity of the operation.
b) Be in alignment with local rainfall patterns, comply with existing local and regional water management strategies, and consider adjacent areas affected by runoff from the operation.
c) Include steps to mitigate any adverse effects on these neighbouring areas.
d) Include water use and quality monitoring results.

Water withdrawal for operational purposes must not exceed the replenishment capabilities of the source, whether it's a water table, watercourse, or reservoir. In areas with long-term freshwater stress, irrigation-intensive crops and operations should only be established if they employ effective practices or mitigation processes that ensure water levels remain stable without conflicting with other standards. Economic operators should avoid extracting water from natural watercourses to a degree that alters their natural flow or disrupts the existing physical, chemical, and biological balance.

Any sorts of water utilization or usage for any water catchments, reservoirs, piped-system, groundwater, aquifers, etc. should be in compliance and relevant specific authorisation from legal bodies including having valid licenses or permits.

Water courses and wetlands are protected, including maintaining and restoring appropriate riparian and other buffer zones as deemed by local regulations. The economic operators should not restrict access to clean water for both drinking and domestic use including providing accessibility to their own labour force. They also should ensure that no pollution of water used by local communities.

Criterion 4.2 Operational Practices

Availability of documented information as below, but not limited to:

1. Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes
2. Water quality management plan
3. Water quality monitoring results
4. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion
5. Water use accounting and assessments using water risk databases such as UN-water database, GRID-Arenda`s Water Scarcity Index, World Resources Institute's Aqueduct Tool.

The above documented information could include evidence of, but not limited to:

1. Agricultural management practices implemented to control runoff and nutrient/pollutant release, such as:
   a) Establishment of adequate buffer zones.
   b) Use of contour farming.
   c) Conservation tillage practices.
   d) Efficient handling and use of on-site chemicals.
   e) Reducing chemical usage or switching for less polluting products.
   f) Cover crop usage.
2. Industrial management practices for:
   a) Avoiding pollutant release.
   b) Treatment/ recycling of waste water.
   c) Measuring of pollutant release.
   d) Efficient handling and use of on-site chemicals.
   e) Reducing chemical usage or switching for less polluting products.
3. Water quality monitoring results demonstrating maintenance or improvement of key water quality metrics year over year.
4. Documentation demonstrating reversal of any water quality degradation that occurred prior to external certification due to the economic operator's activities.
5. A water management plan consistent with local rainfall conditions and in line with local and other applicable water management plans.
6. Documentation that the economic operator's operations and plans are in line with long-term water management plans and use of resources, recognizing that short-term variations in surface or ground water resources may occur.
7. Water management operational practices to optimize water use and reduce water waste.
8. Assessment of impacts of both raw material and fuel production on the water table, natural watercourses and reservoirs.
9. Water use monitoring results demonstrating the effectiveness of management practices and mitigation measures to ensure that the water used is not withdrawn beyond long-term average replenishment capacities and that the physical, chemical and biological equilibrium of watercourses is not modified.

10. Assessment of water supply and potential risk of water depletion through water consumption indicators such as water use midpoint indicator, water depletion index, and drought risk index.

Theme 5: Soil

Criterion 5.1 General

Production of CORSIA SAF should maintain or enhance soil health. The economic operator is required to show that they will employ best management practices in agriculture and forestry for the production of feedstock or the collection of residues. These practices should be aimed at preserving or improving the health of the soil, including its physical, chemical, and biological properties. The economic operator should conduct the specialist environmental or social impact assessments, if required. To ensure soil health in feedstock production, economic operators should establish soil management plan as below, but not limited to:

1. Design production sites to minimize soil erosion, using sustainable practices to enhance soil physical health on a watershed scale.
2. Soil use and quality monitoring results.
3. Adopt practices that protect soil structure, prevent compaction, and maintain or enhance soil organic matter.
4. Ensure that using agricultural and forestry residues for feedstock, including lignocellulosic material, does not negatively impact long-term soil stability and organic matter content.
5. Implement practices to maintain and improve soil nutrient balance and reduce nitrate pollution.
6. Legal compliance related to soil usage as required by the local national regulations.
7. Good agricultural practices like direct seeding or planting, maintaining a permanent soil cover, and diversifying crop rotations and plant associations.
8. Soil maps identifying different types of soils, including steep & swampy terrain are made available which further will be used for as a guidance for planning of drainage and irrigation systems, roads and other infrastructure.

Criterion 5.2 Operational Practices

Availability of documented information as below, but not limited to:

Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes.

1. Soil management plan
2. Soil quality monitoring results
3. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Erosion prevention and control (for example by maintaining a permanent soil cover, managing transportation and industrial activities).

2. Soil structure protection (for example by direct seeding and preventing compaction caused by heavy machinery).
3. Soil organic matter protection (for example by assessing adequate residue collection rates).
4. Nutrient balance management (for example by crop rotation and/or assessing the nutrient demand of the plant).

Theme 6: Air

Criterion 6.1 General

Production of CORSIA SAF should minimize negative effects on air quality. The economic operator should demonstrate that their operations will limit air pollution emissions. An emission-control plan, fitting the scale and intensity of the operations, will be part of the environmental and social management plan. This plan needs to identify major air pollutants and describe mitigation strategies or reasons for not using them. Additionally, a plan to phase out open-air burning of agricultural residues is necessary, with exceptions in specific cases where no alternatives such as prevent natural fires, or if burning is essential for crop viability.

Air quality and emissions monitoring results will be in place and in accordance with the local legislation requirements.

Criterion 6.2 Operational Practices

Availability of documented information as below, but not limited to:

1. Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes
2. Air emissions control plan
3. Air quality / emissions monitoring results
4. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Identification of all potential air pollutants, sources, and their nature.
2. Air pollution mitigation strategies employed (for example the implementation of best available technologies).
3. Monitoring documentation to demonstrate the effectiveness of these strategies.
4. Evidence that there is no open-air burning of residues, wastes or by-products, nor open air burning to clear the land.
5. Evidence that there are strategies to phase-out open-air burning if a relevant practice such availability of Zero-Burn policy and/or its similar.
6. If burning has taken place, the SCS could verify details of burning practices and an assessment of risks to humans (both workers and neighbouring communities) and the environment. Required approval and intervention of local authorities should be demonstrated.

Theme 7: Conservation

Criterion 7.1 General

Production of CORSIA SAF should maintain biodiversity, conservation value, and ecosystem services. CORSIA SAF should be produced without using biomass from areas that are ecologically sensitive or protected unless it's proven not to harm those areas. Awareness on low invasive-risk feedstocks and control measures to prevent the spread of non-native species and altered microorganisms will be demonstrated. Economic operators will avoid species banned in their operational country and must research the invasiveness of species intended for feedstock, using resources like the Global Invasive Species Database (GISD). Operational practices will aim to protect areas valuable for their biodiversity and ecosystem services. A risk management plan will be developed in identifying risks associated with invasive species.

Environmental impacts related to new agricultural areas, building constructions, land restructuring, drainage systems, water management projects, and intensive livestock facilities are thoroughly evaluated through an environmental impact assessment to minimize impact. This assessment includes considering effects on land and soil, endangered species, potential contaminants, and local communities. If such activities occur, a report evidencing consideration of environmental aspects and minimization of negative impacts must be available and updated as needed. This assessment will address the direct and indirect effects on humans, wildlife, soil, water, air, climate, landscape, cultural heritage, and the interplay between these elements.

Ecological corridors and key landscape features will be preserved or restored to reduce habitat fragmentation. This includes aligning with terrain, wildlife, and farming methods. Buffer zones around protected areas and wildlife corridors should be maintained, restored, or established. Natural vegetation near springs and watercourses is kept or reinstated. Riparian buffer zones are created and managed, considering crop, fertilizer, and pesticide application, and harvesting. Plans will be established for recovering vegetation in riparian areas.

The cultivation of invasive species and genetically modified organism (GMO) varieties is regulated; prohibited species or GMO varieties in the operation country aren't cultivated. Compliance with regulatory frameworks for introducing alien species is necessary. Clear traceability and labelling of GM crops as permitted by the operation country are maintained taking into considerations the risks associated. Risk management plan will be established to outline the risks associated with GMO.

A conservation management plan (or similar management plan) will be established in accordance with this standard requirement and also in alignment with the local legislations.

Criteria 7.2 Operational Practices - Conservation

Availability of documented information as below, but not limited to:

1. Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes
2. Conservation management plan
3. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Identification of areas that are protected for their biodiversity, conservation values and ecosystem services on or in the vicinity of the area of operation (for example through the review of publicly available data and maps, the consultation of national or regional institutions at a landscape-level as well as a detailed site-level assessment including the consultation of local stakeholders).
2. Assessment of potential or actual impacts (for example loss of faunal diversity and animal species).
3. Evidence that raw material was not be obtained from areas designated by law or by the relevant competent authority for nature protection purposes and areas for the protection of rare, threatened or endangered ecosystems or species.
4. For protected areas where production is permitted, evidence that potential impacts on biodiversity and conservation value have been assessed and mitigated so as not to interfere with the protection purposes.
5. For species in an economic operator's site that are identified as rare, threatened, endangered, or legally protected, evidence that hunting, fishing, ensnaring, poisoning, and exploitation activities are appropriately enforced.

Criteria 7.3 Operational Practices - Alien Species and Modified Microorganisms
Availability of documented information as below, but not limited to:

1. Legal permitting or evidence of allowable importation and cultivation.
2. Invasive species risk management plan
3. Weed/ Pest Risk Assessment
4. Escape monitoring results and mitigation evidence
5. Modified microorganism risk management plan
6. Other valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Importation and cultivation of species that are used for the production of the biomass are allowed by the relevant national or regional authority, and/or documentation that the species is not highly invasive under similar conditions (e.g., using Weed/Pest Risk Assessment methodologies/tools and consulting invasive species lists - e.g., national lists in the country of production, or IUCN Global Invasive Species Database).
2. Cultivation practices that minimise the risks of invasion.
3. Operational practices for containment of propagules during harvesting, processing and transport to manage pathways of introduction and spread.

4. Monitoring actions to detect escapes.
5. Planned and executed mitigation actions (eradication, containment or management) in the event of escape of a cultivated species.
6. Operational practices for containment during growth, management and transport to minimize risk of escape.

Criteria 7.4 Operational Practices – Avoidance of Adverse Effects
Availability of documented information as below, but not limited to:

1. Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes
2. Conservation management plan
3. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Identification of potential impacts on biodiversity, conservation value, and ecosystem services.
2. Identification of nearby areas that are protected due to their conservation values.
3. Assessment of potential impacts on adjacent/nearby protected areas.
4. Mitigation measures planned or undertaken by the economic operator as appropriate.

Theme 8: Waste and Chemicals
Criterion 8.1 General
Production of CORSIA SAF should promote responsible management of waste and use of chemicals. The economic operator will employ and maintain Integrated Pest Management strategies suitable for the specific crop to control pest populations. IPM involves a combination of techniques, such as biological controls, use of resistant crop varieties, and careful application of pesticides. IPM could be potentially practiced as below, but not limited to:

1. Implementation of crop-rotation or inter-cropping that can disrupt pest lifecycles.
2. Planting of beneficial plants to attract natural predators.
3. Using biological controls such as erecting habitat for natural predators, etc.

Chemicals listed under WHO's 1a and 1b categories should not be used by the economic operator. The WHO Recommended Classification of Pesticides through its International Programme on Chemical Safety (IPCS), classifies pesticides and other chemicals based on their hazard or level of toxicity into five main classes based on their level of acute toxicity.

- Class 1a: Extremely Hazardous
  - Criteria: LD50 < 5 mg/kg (oral, rat), < 20 mg/kg (dermal, rabbit), or < 0.1 mg/L (inhalation, rat).
  - Implications: These chemicals are extremely dangerous and require the highest level of control measures to prevent exposure.
- Class 1b: Highly Hazardous

  - Criteria: LD50 5 to 50 mg/kg (oral, rat), 20 to 200 mg/kg (dermal, rabbit), or 0.1 to 0.5 mg/L (inhalation, rat).
  - Implications: Highly toxic and also require stringent handling and safety protocols.
- Class II: Moderately Hazardous
  - Criteria: LD50 50 to 2000 mg/kg (oral, rat), 200 to 2000 mg/kg (dermal, rabbit), or 0.5 to 2 mg/L (inhalation, rat).
  - Implications: These chemicals pose a moderate hazard and necessitate careful handling and use of personal protective equipment.
- Class III: Slightly Hazardous
  - Criteria: LD50 2000 to 5000 mg/kg (oral, rat), 2000 to 5000 mg/kg (dermal, rabbit), or 2 to 10 mg/L (inhalation, rat).
  - Implications: Although less toxic than the higher classes, precautions are still needed to avoid adverse effects on health.
- Class U: Unlikely to Present Acute Hazard in Normal Use
  - Criteria: LD50 > 5000 mg/kg (oral, rat), > 5000 mg/kg (dermal, rabbit), or > 10 mg/L (inhalation, rat).
  - Implications: These chemicals are considered to have low acute toxicity, but users should still follow all recommended safety practices.

For chemicals included in Annex III of the Rotterdam Convention, the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Montreal Protocol on Substances that Deplete the Ozone Layer, economic operators should maintain a record (detailing type and annual usage). Additionally, a three-year phase-out plan for these chemicals, following certification, will be outlined in their management plans if usage of these chemicals is yet to phased-out.

Manufacturers' safety guidelines for handling, using, storing, and disposing of chemicals should be rigorously followed by the economic operators. Safety Data Sheets (SDS), in line with the Globally Harmonized System (GHS), should be kept updated for a period of five (5) years. Detailed records of pesticide use are required, including the rationale for their application, details about the targeted pests, pesticide specifications, active ingredient content, application rates, locations, dates, target crops, and the number of applications. Handling, storage, and disposal practices for pesticides must adhere to the FAO's Guidelines on Good Practices for both ground and aerial pesticide applications. Fertilizers, similarly, will be stored in a manner that ensures safety and security for both humans and the environment.

The waste and chemical management plan will be established. The waste and chemical management plan will include at least the following:

a) Waste is stored in appropriate containers to prevent environmental contamination and health hazards.

b) Prohibition of any direct contact of these products with soil, water sources, and air outside site unless their safety is confirmed by manufacturers or regional guidelines (like EU, ASEAN, ALENA).
c) Disposal and handling will adhere strictly to the manufacturer's recommendations and relevant regional guidelines.

For new and expanding operations, the design will incorporate infrastructure for the safe incineration of processing waste and chemicals. Existing operations should develop a plan to build facilities for this purpose. The facilities will ensure clean and efficient conversion of residues, wastes, or chemicals into energy provided it is in align with the local legal requirements, scaled to the operation's size and intensity. The design will take into considerations to minimize air pollution from harmful substances. Solid residues from processes like fermentation or burning will be disposed of in a way that protects soil and water quality, or as per national regulations.

The economic operators should establish operational practices that effectively address the potential risks associated with the unintentional release of fossil resources, fuel products, wastes and various chemicals. The operational practices will include a comprehensive risk assessment, which involves identifying and meticulously evaluating potential hazards that may arise during the production, storage, or transportation of these materials. To mitigate these risks, stringent preventative measures will be implemented.

Emergency response & preparedness plans will be in place.

Criterion 8.2: Operational Practices
Availability of documented information as below, but not limited to:

1. Environmental impact assessment addressing multiple CORSIA SAF Sustainability Themes
2. Chemical and waste management plan
3. Pesticide management plan
4. Valid permits or licenses used for regulatory compliance that are in line with the SAF Sustainability Criterion

The above documented information could include evidence of, but not limited to:

1. Minimizing waste.
2. Operational practices for safe handling and disposal of waste, with priority given to recycling or reuse of organic wastes for soil health.
3. Provisions to ensure that the manufacturer's safety instructions for the storage, handling, use, and disposal of chemicals are followed.
4. Minimizing contamination of soil, air and water, and the implementation of clean and efficient processes for conversion of wastes and by-products into energy and / or other products.

5. Evidence that any plant protection products applied are registered in the country of use or permitted as appropriate, and acknowledge any local restrictions and any bans or restrictions by conventions such as the Rotterdam Convention, the Stockholm Convention on Persistent Organic Pollutants (POPs), and/or the Montréal Protocol on Substances that Deplete the Ozone Layer.
6. Application of best practices for the safe and proper disposal of obsolete chemicals (e.g., prohibited in the country of use, banned or restricted by convention, or deteriorated).
7. The implementation and monitoring pest management techniques, including an approach to reduce pesticide usage or to switch to less harmful products.
8. Good practices for the handling, storage and disposal of pesticides.
9. Evidence of pre-application practices (spray equipment selection, equipment serviceability, adjustment and control checks).
10. Evidence of field application practices (field survey, meteorological considerations, treatment timing, sprayer field settings, chemical handling, container handling).
11. Evidence of post application practices (container cleaning, disposal of surplus spray, disposal of empty containers, equipment maintenance and storage, pesticide storage).
12. Documentation demonstrating year-over-year reduction of pesticide use.

Theme 9: Seismic and Vibrational Impacts
Production of CORSIA SAF should minimize seismic, acoustic, and vibrational impacts from CCS.

Criterion 9.1: Operational Practices (for assessment and verification)
Operational practices will be implemented to minimize seismic impacts related to surface, subsurface, and underwater activities.

a) A site-specific seismic risk assessment will be conducted prior to the commencement of CO_2 injection activities, taking into account geological conditions, fault systems, historical seismicity, and injection parameters.

b) Injection pressures, rates, and volumes should be managed within defined operational limits to avoid inducing new seismic events or significantly amplifying existing seismic activity.

c) A seismic monitoring system should be established, commensurate with the scale and risk profile of the CCS project, to detect and record induced or triggered seismic events during injection and post-injection phases.

d) Threshold levels for seismic activity should be defined, and documented response procedures should be implemented in the event that monitored seismicity exceeds predefined thresholds.

e) Records of seismic monitoring data, operational adjustments, and response actions should be maintained and made available for verification.

Criterion 9.2: Operational Practices (for assessment and verification)
Operational practices will be implemented to minimize acoustic energy and vibrational impacts related to surface, subsurface, and underwater activities.

a) Operational activities generating acoustic or vibrational energy should be identified and assessed, including drilling, injection operations, surface equipment, and underwater activities where applicable.

b) Appropriate mitigation measures should be applied to reduce acoustic and vibrational impacts, such as equipment selection, operational scheduling, damping systems, or alternative operational techniques.

c) For offshore or near-sensitive environments, acoustic and vibrational impact assessments should consider potential effects on marine ecosystems and nearby communities, where relevant.

d) Monitoring or measurement of acoustic and vibrational levels should be conducted where risks are identified as material, using methods proportionate to the scale and sensitivity of the affected environment.

e) Operational records and mitigation actions should be documented and retained to support conformity assessment under the ClassNK SCS.

Theme 10: Human and Labour Rights
Production of CORSIA SAF should respect human and labour rights. Compliance with Themes 10 can be demonstrated to the ClassNK SCS by a national attestation from the State in whose territory the SAF is produced, without further assessment by the ClassNK SCS.

Theme 11: Land Use and Land Rights
Production of CORSIA SAF should respect land rights and land use rights including indigenous and/or customary rights, both formal and informal. Compliance with Themes 11 can be demonstrated to the ClassNK SCS by a national attestation from the State in whose territory the SAF is produced, without further assessment by the ClassNK SCS.

Theme 12: Water Use Rights
Production of CORSIA SAF should respect prior formal or customary water use rights of local and indigenous communities. Compliance with Themes 12 can be demonstrated to the ClassNK SCS by

a national attestation from the State in whose territory the SAF is produced, without further assessment by the ClassNK SCS.

Theme 13: Local and Social Development

Production of CORSIA SAF should contribute to social and economic development in regions of poverty, improve the socioeconomic conditions of the communities affected by the operation. Compliance with Themes 13 will be demonstrated to the ClassNK SCS by the economic operator reporting to the ClassNK SCS the actions being taken to meet the related criteria, without further judgement of those actions by the ClassNK SCS.

Theme 14: Food Security

Production of CORSIA SAF should promote food security in food insecure regions, strive to enhance the local food security of directly affected stakeholders. Compliance with Themes 14 will be demonstrated to the ClassNK SCS by the economic operator reporting to the ClassNK SCS the actions being taken to meet the related criteria, without further judgement of those actions by the ClassNK SCS.

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ClassNK SCS Certification for CORSIA SAF

APPENDIX 2 Application of sustainability criteria May 2026

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