RSB – ROUNDTABLE ON SUSTAINABLE BIOMATERIALS

RSB Procedure for Traceability of RSB Certified Material
(RSB Chain of Custody Procedure)

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1. Introduction
All RSB certified operators acquiring, handling or forwarding RSB certified material are required to implement a chain of custody system in line with this procedure.

Under this procedure, RSB certified material shall be tracked from the origin to the final user, each time it passes through an internal processing step or changes ownership (i.e. custody) along the supply chain (or “chain of custody”). A supply chain includes each stage of processing, conversion, transformation, manufacturing, trading and distribution where progress to the next stage involves a change of legal and/or physical control. Supply chains can begin at the stage of feedstock production, or in the case of waste and residue-based chains, at the Point of Origin (See RSB-STD-01-010 RSB Standard for Advanced Fuels for more details).

All RSB certified operators legally and/or physically controlling RSB certified material along the supply chain are required to establish effective and transparent chain of custody tracking systems, which will be verified by the certification body during the audit process. This verification step increases transparency along supply chains and reduces the risk of fraud.

RSB provides five different options¹ for the chain of custody system that shall be put in place: Identity Preserved, Product Segregation, Mass Balance, Content Ratio Accounting and Book & Claim. Information about the chain of custody systems, as well as their requirements for traceability can be found in this procedure.

Main changes to previous version (Version 3.1)
- a) The document was re-classified as a procedure in line with the definitions of the RSB Procedure for Development and Modification of RSB Standards, RSB Procedures and RSB Guidance (RSB-PRO-001);
- b) The scope of the procedure now covers RSB Global, RSB ICAO CORSIA and RSB Japan;
- c) Definitions were added based on the ISO/DIS 22095 Chain of Custody – General terminology and models;
- d) The list of required site record was amended (section F.1.6.);
- e) It was clarified that operators have to account separately for material traded under different RSB certification schemes (RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan (section 1.11));
- f) It was clarified that GHG intensities may only be averaged for material with common characteristics (related to the type of feedstock and the type of product) (clause 3.3.3 and 3.4.6);
- g) Details of the book and claim chain of custody model were deleted as there is a separate procedure for book and claim available (RSB Book and Claim Manual RSB-PRO-001-001);
- h) The list of required information for incoming and outgoing material was amended (Annex I).

Please see the Annex for further information on the history of changes in previous versions of this document.

¹ See Annex II for visual representations
A. The aim of this procedure
The aim of this procedure is to ensure that RSB certified operators put in place a robust and transparent chain of custody system that provides traceability for RSB certified material (e.g. biomass, chemical intermediaries, biofuel, advanced product, etc.) acquired from and/or delivered to other operators in the supply chain. This procedure also aims to ensure that sustainability claims based on compliance with RSB standards and procedures only accompany material that is acquired, handled, and forwarded by RSB certified operators according to the requirements included in this procedure.

B. Scope of this procedure
This procedure applies to any RSB certified operator acquiring, handling and/or forwarding RSB certified material under the certification schemes RSB Global, RSB ICAO CORSIA and RSB Japan.

Please note: This procedure does not apply to operators certified under RSB EU RED. Those operators shall meet the RSB EU RED Standard for Traceability [RSB-STD-11-001-20-001].

The first section describes general requirements that RSB certified operators shall meet when putting in place chain of custody systems. It is followed by specific requirements for the acquisition, handling and forwarding of certified material.

C. Version and date
Version 3.2 of this RSB Procedure for Traceability of RSB Certified Material (RSB Chain of Custody Procedure) shall be effective on 01 May 2020 (the ‘effective date’). Whenever any contradiction or inconsistency exists between this version and previous versions of this procedure, the latest version shall prevail. Any new version of this document will be distributed immediately via email to all Participating Operators, Certification Bodies and RSB Accreditation Body.

D. Note on using this procedure
All parts of this procedure are considered to be normative, including its aim, scope, effective date, notes on its use, references, terms and definitions, requirements and annexes, unless stated otherwise. When putting this procedure in place operators shall make sure that all of the requirements specified in this procedure, and any other measures necessary to achieve its aim, are met.
E. Terms and definitions

For the purposes of this international procedure, the terms and definitions given in RSB Glossary of Terms [RSB- STD-01-002] shall apply. The following terms are particularly important:

**Acquisition process**
The acquisition process includes any and all aspects of ordering, sourcing, procuring, buying, purchasing, receiving or otherwise gaining legal and physical control of a product.

**Batch**
A specific quantity of a product that is intended to have uniform characteristics and qualities.

**Chain of custody**
Process by which inputs and outputs and associated information are transferred, monitored and controlled as they move through each step in the relevant supply chain (Source: ISO/DIS 22095).

**Chain of custody system**
Set of measures designed to implement a Chain of Custody, including documentation of these measures (Source: ISO/DIS 22095).

**Chain of custody model**
Approach taken to control inputs and outputs and associated information in a particular chain of custody system. The following chain of custody models exist:

1. **Identity Preserved model**: Chain of custody model in which the materials or products originate from a single source and their specified characteristics are maintained throughout the supply chain
2. **Segregated model**: Chain of custody model in which specified characteristics of a material or product are maintained from the initial input to the final output
3. **Controlled Blending model (Content Ratio Accounting)**: Chain of Custody model in which materials or products with a set of specified characteristics are mixed according to certain criteria with materials or products without that set of characteristics resulting in a known proportion of the specified characteristics in the final output
4. **Mass balance model**: Chain of custody model in which materials or products with a set of specified characteristics are mixed according to defined criteria with materials or products without that set of characteristics
5. **Book and Claim model**: Chain of custody model in which the administrative record flow is not necessarily connected to the physical flow of material or product throughout the supply chain. (Source: Adapted from ISO/DIS 22095)
First Collector
Operator that receives end-of-life-products, by-products or production residues from points of origin.

Forwarding certified material
Refers to the transfer of legal and physical control of RSB certified material to the next operator in the supply chain.

Handling certified material
Refers to the storage, processing and transport of certified material within the operations included in the scope of operation.

Point of origin
The generator, such as companies, farms, forest areas, residences, industries and commercial facilities of end-of-life-products, by products, production residues or other waste materials.

RSB certified material
Eligible material certified under the RSB system against one of the RSB certification schemes (i.e. RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan) to the applicable RSB standards and procedures.
F. Requirements

1. General Requirements

1. 1. The operator shall put in place a chain of custody system to track RSB certified material through the processes included in the scope of certification. This system shall meet all the requirements of this procedure.

1. 2. The operator shall appoint a management representative as having overall responsibility and authority for putting in place and monitoring the chain of custody system.

1. 3. The operator shall identify and document the employees, or third parties involved in the chain of custody system, in particular those in charge of the acquisition, handling and forwarding (including the verification of the product information) of RSB certified material.

1. 4. The operator shall provide involved employees with appropriate training and make sure they have the needed competences, knowledge and experience to put the chain of custody system in place.

1. 5. The operator shall have all necessary infrastructures (e.g. software or other tools) and operating procedures in place to effectively operate the chain of custody system and ensure that RSB certified material can be tracked continuously without interruption through all processing and trading steps taking place within the scope of certification between the acquisition of the material and forwarding to clients.

1. 6. The operator shall document all sites where RSB certified material is acquired, handled and forwarded and where internal processing steps occur (See also Section F.1.3 of the Procedure for Operators taking part in RSB certification systems [RSB-PRO-30-001]), with additional requirements for site records as follows:

1. 6. 1. Farms, Plantations or Forestry:
   - List of fields or other production areas (hectares), status (in production/not in production), biomass type, chain of custody model employed;
   - List of all recipients of sustainable biomass (e.g. collection points, storage facilities, warehouse, traders), including their address and contacts;
   - Additional sites used by the operator but owned by third parties.
   - Production records (including yield per field);
   - Sales orders, sales invoices, dispatch information, including dates, customers to which the batch or lot was dispatched, delivery records;
   - Stock records including inventory balancing, for storage sites;
   - Transporter or shipper details.
1. 6. 2. **Industrial units (including mechanical operators):**
   - List of all suppliers of certified material, and copy of their valid certificates;
   - Purchase documents including, e.g. purchase orders, contracts, invoices and goods receipts inspections, delivery notes and received quantities;
   - Processing information including the conversion factors and specification of quantities of materials and products, stored and finished;
   - Production records;
   - Sales orders, sales invoices, dispatch information, including dates, customers to which the batch or lot was dispatched, delivery records;
   - Stock records including inventory balancing;
   - Transporter or shipper details;
   - Records of mass balance calculation (if relevant);
   - List of sites, status (in production/not in production);
   - Chain of custody model employed;
   - List of all recipients of RSB certified material (e.g. collection points, storage facilities, warehouse, traders), including their address and contracts;
   - Additional sites used by the operator but owned by third parties.

1. 6. 3. **Storage Facilities, Warehouse and Traders**
   - List of all suppliers of certified material, and copy of their valid certificates;
   - Purchase documents including, e.g. purchase orders, contracts, invoices and goods receipts inspections, delivery notes and received quantities;
   - Sales orders, sales invoices, dispatch information, including dates, customers to which the batch or lot was dispatched, delivery records;
   - Stock records including inventory balancing;
   - Transporter or shipper details;
   - List of all collection points, including name and address;
   - Record of mass balance calculation (if relevant);
   - If the operator is not the legal owner of the storage site, a written contract between the operator and the legal owner of the site will be required to forward products with an RSB compliance claim included with the product information.

1. 7. The operator shall keep these records for 5 years.

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2 Participating Operators implementing Identity Preserved or Segregation models are not required to comply with this requirement.
1. 8. Greenhouse gas (GHG) emissions for transport shall be added, either by a) the certified operator forwarding RSB certified material, prior to its transport; b) the Participating Operator responsible for transport of the RSB certified material; or c) the certified operator acquiring RSB certified material, after its transport. GHG emissions for transport can be calculated by using disaggregated default values for transport\(^3\) or by using the RSB GHG Calculator Tool or accepted alternatives.

1. 9. The operator shall make sure that sufficient details to identify the material are included in the product information attached to every batch of RSB certified material that is acquired, handled or forwarded.

**Full details of product information requirements/guidelines for each operator type are available in Annex I.**

*Note: additional requirements for documentation apply in the certification scheme RSB EU RED [see RSB-STD-11-001-20-001] and RSB ICAO CORSIA [RSB-STD-12-001]*

1. 10. If the operator is implementing more than one chain of custody system in the operation(s) (e.g. one of their clients require physically segregated batches of products while others use mass balance), the operator shall keep a separate accounting for products acquired through each chain of custody system used. The operator may group various products that share similar characteristics in terms of product type, quality and production process into product groups.

1. 11. If the operator is simultaneously acquiring, producing, processing, handling or forwarding material certified against different RSB certification schemes (i.e. RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan), the operator shall keep a separate accounting for the different compliance claims.

*Note: This requirement refers to claims related to the different RSB certification schemes as well as any additional compliance claims allowed under the RSB certification system, for example claims related to low ILUC risk biomass or no GMO used for cultivation claims.*

1. 12. The operator shall provide any product information required in this procedure upon request to the RSB Secretariat, the Accreditation Body and/or the responsible Certification Body.

1. 13. The operator shall notify the responsible Certification Body about any significant modification in the chain of custody system.

**2. Specific Requirements for Acquiring RSB certified material**

2. 1. Any and all acquisitions of RSB certified material shall be based on a contractual agreement between the operator and the operator’s supplier.

*Note: this includes purchases made on spot markets.*

\(^3\) EU RED 2008/29/EC Annex V
2. The operator shall make sure that the product information described in Annex I for each batch of incoming certified material is provided by the supplier (e.g. in the supplier invoice, transport documentation, proof of sustainability or other supporting documentation) and shall keep records of this information.

3. **Specific Requirements for Handling RSB certified material**

3. 1. The operator shall keep records of the product information described in Annex I for handling RSB certified material in process.

3. 2. **For operators using an Identity Preserved chain of custody system:**

3. 2. 1. The operator shall document each batch of RSB certified material in each internal processing step included in the certification scope separately.

3. 2. 2. The operator shall not mix a batch of RSB certified material tracked under this system with a batch of RSB certified material from a different place of origin or a batch of products that are not RSB certified.

3. 2. 3. The operator shall inform the responsible Certification Body and change the tracking model to “Product Segregation” under the following circumstances:

3. 2. 3. 1. if a batch of RSB certified material is physically mixed with a batch of RSB certified material from a different place of origin; or

3. 2. 3. 2. in cases where the documentation associated with a batch of RSB certified material was not kept separate from another batch of RSB certified material.

3. 2. 4. It will be necessary to inform the responsible Certification Body and change your tracking model to “Mass Balance” or “Content Ratio Accounting” if a batch of RSB certified material is physically mixed with a batch of products that are not RSB certified in an internal processing step.

3. 3. **For operators using a Product Segregation chain of custody system:**

3. 3. 1. The operator shall document RSB certified material separately from products that are not RSB certified.

3. 3. 2. The operator shall keep RSB certified material physically separate from products that are not RSB certified.

   **Note:** the operator can mix different batches of RSB certified material.

3. 3. 3. Whenever RSB certified materials with different GHG intensities are mixed together, the operator may calculate the average greenhouse gas (GHG) intensity for products with common characteristics (e.g. type of feedstock, type of product)

   **Example:** 1,000 Litres of RSB certified bioethanol from sugarcane with a 60% GHG savings mixed with 1,000 Litres of RSB certified bioethanol from sugarcane with a 50% GHG savings in the same proportion will make 2,000 Litres of RSB certified bioethanol with an average 55% GHG savings.

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4 In the EU RED version of this standard, the lowest GHG saving value in the mix shall be applied to the entire mix, alternatively the individual GHG values may be tracked separately.
3. 3. 4. The operator shall not use the “identity of product preserved” tracking model in any internal processing steps if the “product segregation” tracking model was used anywhere in the preceding steps of the supply chain.

3. 3. 5. The operator shall inform the Certification Body and change the tracking model to “Mass Balance” or “Content Ratio Accounting” if a batch of RSB certified material is physically mixed with a batch of products that are not RSB certified in an internal processing step.

3. 4. For operators using a Mass Balance chain of custody system:

3. 4. 1. If several operational sites are included in the scope of certification, each operational site shall maintain its own Mass Balance accounting.

3. 4. 2. If more than one legal entity operates on a site, then each legal entity is required to operate its own mass balance.

3. 4. 3. The operator shall record RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan, EU RED certified material separately.

3. 4. 4. The operator shall record certified material separately from materials that are not certified.

3. 4. 5. The operator shall record the compliance claim associated with each batch of RSB certified material.

3. 4. 6. The operator may physically mix RSB certified material with products that are not RSB certified.

3. 4. 7. Whenever RSB certified materials with different GHG intensities are mixed together, the operator may calculate the average greenhouse gas (GHG) intensity for products with common characteristics (e.g. type of feedstock, type of product)6.

   Example: 1,000 Litres of RSB certified bioethanol from sugarcane with a 60% GHG savings mixed with 1,000 Litres of RSB certified bioethanol from sugarcane with a 50% GHG savings in the same proportion will make 2,000 Litres of RSB certified bioethanol with an average 55% GHG savings.

3. 4. 8. The operator shall monitor the balance of certified material withdrawn from and added to the mass balance system, taking into account the conversion factor. The conversion factor shall be calculated as:

   Conversion factor (%) = \frac{\text{Amount Output}}{\text{Amount Input}} \times 100

   The conversion factor shall be based on an actual output of a specific product, co-product and / or residue.

   Different compliance claims (i.e. RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan) shall be monitored separately.

3. 4. 9. The operator may use either of the following accounting methods to monitor the balance:

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6 In the EU RED version of this standard, the lowest GHG saving value in the mix shall be applied to the entire mix, alternatively the individual GHG values may be tracked separately.
3. 4. 9. 1. Continuous: Deficits of RSB certified material shall not occur; i.e. the operator shall not forward or deliver greater amount of RSB certified material than the acquired or produced;

3. 4. 9. 2. Fixed: Deficits of RSB certified material may occur, as long as balance is achieved over a fixed period of time (max. 3 months); i.e. the operator may forward or deliver greater amount of RSB certified material than acquired or produced as long as the total amount of forwarded/delivered RSB certified material over (at max) 3 months is consistent with the amount of acquired/produced RSB certified material over the same period, considering the conversion factor.

3. 4. 10. A positive balance of RSB certified material may be reported into the next reporting period whenever the operator can demonstrate that an equivalent physical stock is available until the positive balance is expended.

3. 4. 11. The operator shall not use the “identity of product preserved” or “segregation” tracking model in any internal processing steps if the “mass balance” tracking model was used anywhere in the preceding steps of the supply chain.

3. 5. For operators using a Content Ratio Accounting chain of custody system:

   Important Note: Content Ratio Accounting is only applicable under RSB Global and cannot be used for biofuel products traded and distributed in the European Union within the scope of the Renewable Energy Directive (2009/28/EC) and Fuel Quality Directive (98/70/EC) nor for sustainable aviation fuel (SAF) eligible under CORSIA.

3. 5. 1. The operator shall document RSB certified material separately from materials that are not RSB certified.

3. 5. 2. The operator shall document the compliance claim associated with each batch of RSB certified material

3. 5. 3. The operator may physically mix RSB certified material with products that are not RSB certified.

3. 5. 4. Whenever RSB certified materials with different GHG intensities are mixed together, the operator may calculate the average greenhouse gas (GHG) intensity for products with common characteristics (e.g. type of feedstock, type of product)

3. 5. 5. The operator shall continuously monitor the content ratio of RSB certified material withdrawn from and added to the content ratio accounting system, taking into account the conversion factor. The conversion factor can be calculated as:

   \[
   \text{Conversion factor (\%)} = \frac{\text{Amount Output}}{\text{Amount Input}} \times 100
   \]

3. 5. 6. The operator shall ensure that on-product claims attached to RSB certified material mention the actual content ratio at the time of delivering.

3. 5. 7. The operator shall not use the “identity of product preserved” or “segregation” tracking model in any internal processing steps if the “content ratio” tracking model was used anywhere in the preceding steps of the supply chain.
3. 6. **Book & Claim**


4. **Specific Requirements for Forwarding RSB Certified Material**

4. 1. Any and all forwarding of RSB certified material shall be based on a **contractual agreement** between the operator and their customers.

   *Note: this includes purchases made on spot markets.*

   *Note: A purchase order might also be a contractual agreement*

4. 2. The operator shall include a proof of sustainability (PoS) to any batch of outgoing RSB certified material. The PoS shall include the product information described in Annex I. The operator may use regular sales documentation (invoices, bill of lading etc.) instead of the PoS as long as it includes the product information described in Annex I.

   *Please note: RSB provides a template for the PoS that may be used by the operator.*

4. 3. The operator shall keep records of all forwarded RSB certified material for a period of five years.
Annex I – Required product information to be recorded/forwarded by the certified operator for RSB Certified Material at different steps

A. General Information
For incoming certified material (“acquisition”):

- Description of the incoming material, including technical specification, if available
- Specification of the raw material that was used to produce the product (i.e. specification of the crop, production residue, or end-of-life product that was used)
- Statement if the raw material is eligible as production residue or end-of-life product under the RSB certification system
- Country of origin
- Quantity of certified material(s)
- Date of acquisition and (if different from the date of acquisition) date of entry in the participating operator’s chain of custody tracking and management systems
- Location of the site where RSB certified material is acquired
- Name and address of supplier(s)
- Name and address of the last production/processing site
- If the previous production/processing site is managed by an external third party, the name and address of this external third party
- Name of the certification scheme (i.e. RSB Global, RSB EU RED, RSB ICAO CORSIA, RSB Japan, or name of another certification scheme recognised under the RSB)
- If applicable, additional claim as allowed under the RSB certification system (e.g. Low ILUC Risk Biomass)
- Valid certificate number and name of Certification Body
- Chain of custody model employed at the supplier’s last site
- Greenhouse Gas Intensity

For RSB certified material in process within the scope of certification (“handling”), the operator should keep the following records:

- Identification and description of the process
- Name and address of the site(s) where the production steps occur
- Conversion factor(s)\(^6\) used in processing of each group of products (where relevant)

For outgoing RSB certified material (“forwarding”):

- Description of the product, including the technical specification, if available
- Specification of the raw material that was used to produce the product (i.e. specification of the crop, production residue, or end-of-life product that was used)
- Statement if the raw material is eligible as production residue or end-of-life product under the RSB certification system
- Quantity of certified product(s)
- Date of shipment
- Name and address of customer(s) and delivery site

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\(^6\) Conversion Factors are used to calculate the amount of outcomes based on the initial amount of material entering the processing step. They are expressed as a ratio of Liters of outcomes per Liter of entering material, Liters per Tons, m\(^3\) per Tons etc.
• Name and address of production or storage site(s) and site from which the product is forwarded\(^7\)
• If the site from which the product is forwarded is managed by an external third party, the name and address of this external third party
• Country of origin
• Unique number of the delivery note (e.g. Bill of lading, or invoice #)
• ID number of batch
• Certification Scheme (i.e. RSB Global, RSB EU RED, RSB CORSIA or RSB Japan)
• If applicable, additional claim as allowed under the RSB certification system (e.g. Low ILUC Risk Biomass)
• Valid RSB certificate number and name of Certification Body
• Chain of custody model employed
• Greenhouse Gas Intensity
• Statement whether the GHG value contains transport emissions. If not, list the transport type and transport distance (in km)

B. In addition to the requirements listed in A, the following data should be also informed by the operator to its customer for final products (i.e. products that are not processed further):

- GHG emissions value in g CO₂ equivalent/MJ for energy products and g CO₂ equivalent / t (or per unit sold) for non-energy products
- Fossil fuel comparator in the same unit (dependent on final use)
- The GHG emissions savings (%)
Annex II – Visual representations of 4 of the chain of custody system options (Book & Claim not shown)

Identity Preserved

Figure 1: All product lots (batches) are kept separately. E.g. a batch of RSB certified feedstock from Farm A cannot be mixed with a batch of RSB certified feedstock from Farm B.

Product Segregation

Figure 2: Certified products are kept separate from non-certified products. E.g. a batch of RSB certified biodiesel from Unit A can be mixed with a batch of RSB certified biodiesel from Unit B, but not with a batch of non-RSB certified biodiesel from Unit C.
**Mass Balance**

Figure 3: All products may be mixed, as long as documentation remains separate. E.g. a batch of RSB certified bioethanol from Unit A can be mixed with a batch of non-RSB certified biodiesel from Unit B, but they are sold separately according to the mass balance of the system.

**Content Ratio Accounting**

Figure 4: All products may be mixed. Actual content ratio to be indicated on each batch of product. E.g. a batch of RSB certified bioethanol from Unit A can be mixed with a batch of non-RSB certified biodiesel from Unit B. They are sold together with the content ratio of RSB-certified material in the mix attached to each batch of product.
Annex III History of Changes

Main changes between Version 2.0 and Version 3.0

a. This document is the result of a merger between 5 procedures (RSB-STD-20-001, RSB-STD-20-002, RSB-STD-20-003, RSB STD-20-004 and RSB-STD-20-005). All the generic chain-of-custody requirements and specific requirements for every CoC model (Identity preserved, segregation, mass balance and book and claim) are now integrated into a single procedure.
b. This procedure was entirely re-written using the “plain English” approach, which aims to make the content clearer.
c. The word RSB Certified Material is used in replacement of RSB Compliant Product and other similar terms.
d. A new “Book and Claim” system is introduced (under development).
e. Additional information was added on the management of mass balance systems and Product Transfer Documentation (Annex I).
f. The numbering was updated.

Main changes between Version 3.0 and Version 3.1

a. The requirements for product information were clarified and split among three subsections corresponding to the acquisition, handling and forwarding of certified material.
b. The term “product information” is now used instead of “product documentation”, as this would allow information to be recorded through other means than written documents.
c. The term “legally binding agreement” is replaced by “contractual agreement” for clarity.
d. The required product information was simplified (Annex I).
e. Minor language improvements were made and the numbering was updated.