Dear Sir or Madam,

Please find attached a proposal for a new Project Committee on 'Chain of Custody – Transparency and traceability – Generic requirements for supply chain actors' proposed by NEN (The Netherlands).

With the support of many (inter)national organisations and government NEN developed a proposal for a horizontal standard that describes the generic Chain of Custody (CoC) requirements for supply chain actors in the globally accepted ISO language. With this e-mail I would like to seek your support for this proposal, which can be found enclosed.

Why is this work needed:
The proliferation of traceability systems and definitions is causing unnecessary confusion, complexity, and costs for players in different supply chains. This results in a barrier to market access, especially for smaller companies and developing countries.

How do we intend to achieve this:
The proposed generic CoC standard allows modular use of various related, already-existing standards or internal systems. Being based on currently available best-practices, the standard will define supply chain models and the respective traceability levels. It allows organisations to better address the increasing market demand for transparency and simplifies market access by using a uniform language and criteria throughout the supply chain.

What do we propose:
We recognise that the definition of CoC requirements and traceability levels can be defined independent of sectors, raw materials, products, and issues addressed. A simple horizontal solution can drastically reduce the costs and the loss of time caused by the present variety of CoC definitions and systems. This solution would in the sense of ISO obviously need some assurance of backwards-compatibility to already existing product specific or MS activities.

Strong industry support, especially from global players, has been sought by NEN to guarantee the success of this proposal for the development of an international (ISO) standard. To make it a truly horizontal standard, buy-in from different sectors dealing with varying issues is important. Hence many TC's and liaison organizations will be invited to join the discussion.

Going forward with this project NEN welcomes a twinning partner from a developing country member to exchange knowledge and improve participation in standardization in the field of facilitating international trade. The envisaged twinning partner should meet the following criteria:
- full membership of ISO,
- the export and import of various feedstock and/or products is of national interest, and
- expressed commitment to actively participate in this project from national stakeholders beyond the total development time frame

In the initiating phase within the national context of NEN, support has already been found from the manufacturing industry in several sectors, retail, certification schemes, round table initiatives and government. Please refer to our website and the attached proposal for more information or contact NEN via energy@nen.nl.
Best regards,

Juliane Eykelhoff
Consultant
NEN AgroFood & Consument
T +31 15 2 690 235

NEW WORK ITEM PROPOSAL

Closing date for voting **2016-08-03**	Reference number (to be given by the Secretariat)
Date of circulation **2016-05-03**	**ISO/TC** / SC **N**
Secretariat NEN	☒ **Proposal for new PC**

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, or organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

IMPORTANT NOTE: Proposals without adequate justification risk rejection or referral to originator.
Guidelines for proposing and justifying a new work item are contained **in Annex C of the ISO/IEC Directives, Part 1.**

☒ The proposer has considered the guidance given in the Annex C during the preparation of the NWIP.

Proposal (to be completed by the proposer)

Title of the proposed deliverable.
(in the case of an amendment, revision or a new part of an existing document, show the reference number and current title)
English title   Chain of Custody – Transparency and traceability – Generic requirements for supply chain actors
French title (if available)

Scope of the proposed deliverable.

The overall scope of work is standardization in the field of chain of custody (CoC) terminology and requirements for all products with specified characteristics. The objective is to increase transparency and facilitate market access, especially for smaller companies and developing countries.

This standard differs from existing ISO initiatives by defining the requirements and traceability levels *independently of sectors, raw materials, products, and issues addressed*. It lays down a set of generic requirements to ensure that products with specified characteristics sold or shipped by a supply chain actor (SCA), can be physically and/or administratively connected to a corresponding amount of input material with the same specified characteristics. It does not intend to set requirements on the input or output material or limitations to specific product characteristics such as sustainability, safety or source. It does however provide guidance for describing characteristics.

This International Standard is intended to increase transparency in value chains by specifying traceability requirements for the individual supply chain actors. This international standard can be used in all sectors and for all products with specific characteristics, which are transferred between two or more SCA's. Services are not included.

This standard defines commonly used supply chain models, their traceability levels and their specific requirements regarding administration, physical handling activities, , conversion rates, transactions and stock activities relating to the product et cetera. These fundamental concepts and principles of chain of custody management cover the whole supply chain and are universally applicable to the following stakeholders:

•   organizations seeking sustained success through the implementation of a chain of custody management system;

•   customers seeking confidence in an organization's ability to consistently provide products and services conforming to their requirements;

•   organizations seeking confidence in their supply chain that product and service requirements will be met;

•   organizations and interested parties seeking to improve communication through a common understanding of the vocabulary used by supply chain actors;

•   developers of related standards.

Purpose and justification of the proposal.

The proliferation of traceability systems and definitions is causing unnecessary confusion, complexity, and costs for players in different supply chains. This results in a barrier to market access, especially for smaller companies and developing countries. Commonly used terms and definitions for CoC are the first step in allowing the modular use of various related standards possible.

A simple solution can drastically reduce the costs and the loss of time caused by the present variety of CoC definitions and systems. Recognising that the definition of CoC requirements and traceability levels can be defined independent of sectors, raw materials, products, and issues addressed, the proposed ISO standard is a multi sector globally applicable basis or reference for CoC requirements for supply chain actors. Existing systems may refer to this International Standard for the clarification of the differences between the requirements in their system and the CoC models specified in this standard. New systems can base their definition of CoC requirements on this standard instead of specifying it from scratch.

The proposed generic CoC standard allows modular use of various related, already-existing standards or internal systems. This means that there is no duplication with the existing ISO initiatives in the field of cocoa and forest based products[1] or with private standards. The standard can rather serve as a benchmark for identifying the differences between requirements in different standards and certification schemes. Being based on currently available best-practices, the standard will define supply chain models and the respective traceability levels. It allows organisations to better address the increasing market demand for transparency and simplifies market access by using a uniform language and criteria throughout the supply chain.

Eventually, the result will be a separation of specific requirements in a standard in relation to the subject it covers (e.g. sustainability, source, safety) and generic requirements related to the CoC.

The initiative to formulate this multi sector ISO standard has been taken by NEN in close cooperation with the Dutch government and mostly multi-national representatives from private sector companies and industry associations, round tables and certification organisations. The initiative is strongly supported by these players, who are convinced that rolling out a generic ISO CoC standard will effectively reduce complexity, costs, supply chain risk and unnecessary use of time.

Benefits of a generic ISO Chain of Custody standard

- Independent of sector, raw material and issue (e.g. food safety, sustainability, etc.)
- Terms and definitions based on globally accepted ISO language
- Modular use of related ISO and private standards possible
- Based on available best practices
- Generic CoC requirements for individual supply chain actors
- Horizontal and generic benchmark for new and existing standards and internal systems

As the standard will make use of current chain of custody practices, the objective is to finalize the work within a shorter period than the normal 24 months timeframe. Therefore it is important to reduce the complexity of this horizontal project. The standard will not yet cover the following aspects:

- the information integrity as opposed to the physical integrity (e.g. traceability systems);
- the management system side of things;
- the way to deal with the many technical issues related to product identification;
- some of the more peripheral operational issues such as privacy and confidentiality;
- the full product lifecycle.

However, these aspects are important for a proper Chain of Custody management. The need for extending the scope should be investigated once the terminology and generic technical requirements for CoC practices have been harmonized.

If a draft is attached to this proposal,:

Please select from one of the following options (note that if no option is selected, the default will be the first option):

☒ Draft document will be registered as new project in the committee's work programme (stage 20.00)
☐ Draft document can be registered as a Working Draft (WD – stage 20.20)
☐ Draft document can be registered as a Committee Draft (CD – stage 30.00)
☐ Draft document can be registered as a Draft International Standard (DIS – stage 40.00)

Is this a Management Systems Standard (MSS)?

☐ Yes ☒ No

Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal.

☒ International Standard ☐ Technical Specification ☐ Publicly Available Specification ☐ Technical Report

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[1] ISO 19381-3 and ISO 38200 are indispensable as they incorporate contentious aspects of their specific products and supply chains. They cover a broader scope by incorporating input and output material requirements.

Proposed development track ☒	1 (24 months)	☐	2 (36 months - default) ☐	3 (48 months)

Known patented items (see ISO/IEC Directives, Part 1 for important guidance)

☐ **Yes**   ☒ **No**   If "Yes", provide full information as annex

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized.

This work does not conflict with the actual work undertaken in ISO/PC 287 or ISO/TC 34/SC 18. The standards developed in these committees are product-specific (wood, paper, cocoa) and process specific (sustainable forestry and sustainable cocoa). The proposed horizontal CoC standard will cover generic organizational requirements and supply chain models and may or may not be used as a reference or a benchmark for related standards. However, to truly safeguard the horizontal character of the standard, a strong structure based on close liaisons with existing committees is necessary.

A listing of relevant existing documents at the international, regional and national levels.
- ISO/CD 38200 'Chain of custody of forest based products'
- CEN/TS 16214-2 'Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 2: Conformity assessment including chain of custody and mass balance'
- EN ISO/CD 19381-3 'Sustainable and traceable cocoa beans – Part 3: Requirements for traceability'
- Private Chain of Custody standards including a.o. RSPO, BRC, UTZ, MSC, GMP+, Global G.A.P., etc.
- ISO 9000:2015 'Quality Management Systems – Fundamentals and vocabulary'
- ISEAL Alliance 'Sustainability Claims Good Practice Guide', May 2015
- United Nations 'A Guide to Traceability - A Practical Approach to Advance Sustainability in Global Supply Chains'

A simple and concise statement identifying and describing relevant affected stakeholder categories (including small and medium sized enterprises) and how they will each benefit from or be impacted by the proposed deliverable(s)

The list of affected stakeholders includes, but is not limited to, the following:
- Producers in all supply-chains, incl. multinationals and small and medium sized companies;
- Farmers, originators;
- Consumers and production industry in general;
- Traders;
- Local and national governments;
- NGOs;
- Certification bodies;
- Round table initiatives dealing with requirements for raw materials;
- Investment companies;
- Service providers (e.g. chain of custody systems);
- Universities dealing with supply chain management

Liaisons:	**Joint/parallel work:**
A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s).	**Possible joint/parallel work with:**
a. ISO/TC 34/SC 17 Food safety and SC 18 Cocoa (incl. CEN/TC 450[2]), ISO/TC 207/SC 2 "Auditing and related investigations", ISO/PC 287 Forest based products [2]	☐ IEC (please specify committee ID)
b. Roundtables in general, Marine Steward Council (MSC), Forest Stewardship Council (FSC); Programme for the Endorsement of Forest Certification (PEFC), RSPO, RTRS, RSB, Better Biomass, etc.	☐ CEN (please specify committee ID)
c. ISEAL Alliance	☐ Other (please specify)
d. Food and Agriculture Organization of the United Nations (FAO), International Accreditation Forum (IAF), Bureau International pour la Standardisation des Fibres Artificielles (BISFA), International Cocoa Farmers Organization (ICCFO)	
e. GS1	

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[2] The project proposal has been discussed in more detail with the committee leadership and members

A listing of relevant countries which are not already P-members of the committee.
`n.a.`

Preparatory work (at a minimum an outline should be included with the proposal)

☒ A draft is attached   ☒ An outline is attached   ☐ An existing document to serve as initial basis

The proposer or the proposer's organization is prepared to undertake the preparatory work required   ☒ Yes   ☐ No

Proposed Project Leader (name and e-mail address)	**Name of the Proposer** (include contact information)
to be confirmed	Piet-Hein Daverveldt
	General Manager NEN
	the Netherlands
	energy@nen.nl

Supplementary information relating to the proposal

☒   This proposal relates to a new ISO document;

☐   This proposal relates to the amendment of existing ISO document

☐   This proposal is for the revision of an existing ISO document;

☐   This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item;

☐   This proposal relates to the re-establishment of a cancelled project as an active project.

Other:

Annex(es) are included with this proposal (give details)

☒   General outline and background of the proposal including the list of stakeholders, who are committed to actively participate in the work

☒   First draft text of the proposed generic ISO Chain of Custody standard

NEN

Proposal for developing a Horizontal ISO Chain of Custody standard

Chain of Custody – Transparency and traceability – Requirements

NEN sets the standard

Proposal for developing a Horizontal ISO Chain of Custody standard

1 The Importance of traceability and Chain of Custody today

Understanding the origin of raw materials, product components and products is continuously gaining importance. Consumers and producers want to avoid issues with health and safety, ecology, and social compliance. The main drivers are government policies and consumer market demands. Companies directly active in the supply chain (traders, manufacturers, retailers) as well as companies investing in such companies need traceability to understand the risks, to secure quality and to manage reputation risks.

Chain of Custody (CoC) systems have become an indispensable element of many different certification schemes for products and commodities; they enable information about production characteristics to flow through the supply chain to intermediate users and end consumers. CoC systems are now part and parcel of certification for food safety, sustainable agriculture or forestry, social compliance in manufacturing, and many others.

Although these many systems differ in semantics, presentation, and focus, they deal with the same problem. They make the same distinctions between different degrees of traceability from IP (identity preserved) to different options that allow mixing of various flows (such as 'mass balance'), or even purely administrative systems that do not guarantee physical traceability (such as 'certificate trade').

2 Problems caused by the proliferation of traceability systems and variety in definitions

The proliferation of traceability systems and definitions is causing unnecessary confusion, complexity, and costs for different players in different supply chains.

End product manufacturers and traders delivering to manufacturers have to comply with an increasing variety of systems required by their customers, leading to unnecessarily high administrative costs and time investment. Retailers who sell tens of thousands of consumer products have to dedicate considerable efforts to assess the reliability of chain traceability; even if only required for a selection of components in a selection of their retail assortment. This task has become unnecessarily complex because of the existence of various certification schemes, self-assessments and verification schemes that tend to use mutually conflicting CoC definitions. The result is more paperwork in the company and higher costs than strictly required.

A similar case can be made for investors who need to get insight into the supply chain risks of the companies and sectors they invest in.

Apart from these internal administrative costs made by manufacturers, traders, retailers, investors, and others, there are unnecessarily high external costs for auditing. Different audits have to be carried out for different supplies by auditors accredited for different certification systems, even if they are supplied by the same supplier.

In addition, there are costs associated with standard setting and certification organisations. When setting up the CoC component, the organisations lose valuable time to produce systems and definitions that eventually are almost identical to existing systems.

The complexities and resulting costs of various CoC standards are a barrier to market access, especially for smaller companies and developing countries.

3 The Solution: A multi sector ISO Chain of Custody standard

A simple solution can drastically reduce the costs and the loss of time caused by the present variety of CoC definitions and system. Recognising that the definition of CoC requirements and traceability levels can be defined independent of sectors, raw materials, products, and issues addressed, the proposed solution is a multi sector globally applicable ISO CoC standard to which existing systems may refer to and on which new systems can base their definition of CoC requirements.

Eventually, the result will be a separation of specific requirements in a standard in relation to the subject it covers (e.g. sustainability, source, safety) and generic requirements related to the CoC.

The initiative to formulate this multi sector ISO standard has been taken by NEN in close cooperation with the Dutch government and mostly multi-national representatives from private sector companies and industry associations, round tables and certification organisations. The initiative is strongly supported by these players, who are convinced that rolling out a generic ISO CoC standard

will effectively reduce complexity, costs, supply chain risk and unnecessary use of time.

4 The draft document

The proposed ISO standard for Chain of Custody intends to increase transparency in value chains by specifying traceability requirements for the individual supply chain actors. It will describe a set of requirements to ensure that the products with specified characteristics sold or shipped by a supply chain actor (SCA), can be physically and/or administratively connected to a corresponding amount of input material with the same specified characteristics.

The standard will define the commonly used terms and definitions using the globally accepted ISO language as reference (e.g. ISO 9001:2015; ISO 22000, ISO 26000 etc.) making the modular use of various related standards possible. The definitions include the different supply chain models, their traceability levels and their specific requirements regarding administration, physical handling activities, traceability levels, conversion rates, transactions and stock activities relating to the product et cetera.

The longer term vision is that eventually all major certification systems, with all their variety in focus on different sectors and different issues, will refer to the ISO CoC standard for the definition of their terminology. This will then enable simplification of the CoC requirements defined by those standards. No longer will the development of specific CoC requirements be necessary for each system. It will then suffice to refer to the ISO standard.

5 Development and global implementation of the ISO standard: next steps

Strong industry support, especially from global players, is essential for the success of this new standard within ISO. To make it a truly horizontal standard, buy-in from a variety of sectors dealing with varying issues is important. In the initiating phase within the national context of NEN there is already strong buy-in from the manufacturing industry from various sectors (a.o. food, consumer goods, energy, construction industry) retail, certification schemes and round table initiatives and government. The proposal is prepared by the signatories in this letter who are committed to actively participate in the work.

The possible draft for an international standard on CoC requirements will be available at the national standardisation bodies from May 2016 to clarify the proposed structure of the document. This draft may be used to prepare a first working draft in the global context of ISO. In developing the ISO standard, good cooperation – and not competition – between the owners of certification schemes, self-assessments and verification schemes and the ISO members is required.

We ask all members of ISO to also actively consult the various stakeholder groups and sectors within their countries for support and active participation in this new field of work.

Participants February 2016

Organization
ABN AMRO
Ahold
ChainPoint
Control Union
DuraCert
Dutch Ministry of Economic Affairs
eLigna
FNLI - Dutch Federation for Food Industry (representing a.o. Nestlé, Danone, Akzo, Kelloggs)
GMP+ International
Hidde van Kersen (Consultant)
Isafor
MSC - Marine Stewardship Council
MVO - Netherlands Oils & Fats Industry (representing a.o. Unilever, Cargill, Wilmar, Agrifirm)
Nevedi
Reinier de Man (Consultant)
RSPO - Round Table on Sustainable Palmoil
RVO
Schutter Rotterdam B.V.
UTZ
Vereniging Nederlandse Kerftabak Industrie (VNK)/ Stichting Sigaretten Industrie (SSI)
VVNH - Koninklijke Vereniging Van Nederlandse Houtondernemingen

NEN

NEN sets the standard

Chain of Custody — Transparency and traceability — Requirements

Élément introductif — Élément central — Élément complémentaire

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO was prepared by Technical Committee ISO/TC , *Chain of Custody*, Subcommittee SC , .

This second/third/... edition cancels and replaces the first/second/... edition (), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

Introduction

Understanding the origin of raw materials, product components and products is continuously gaining importance. Consumers and producers want to avoid issues with health and safety, ecology, and social compliance. The main drivers are government policies and consumer market demands. Companies directly active in the supply chain (traders, manufacturers, retailers) as well as companies investing in such companies need traceability to understand the risks, to secure quality and to manage reputation risks.

Chain of Custody (CoC) systems have become an indispensable element of many different certification schemes for products and commodities; they enable information about production characteristics to flow through the supply chain to intermediate users and end consumers. CoC systems are now part and parcel of certification for food safety, sustainable agriculture or forestry, social compliance in manufacturing, and many others.

Although these many systems differ in semantics, presentation, and focus, they deal with the same problem and make the same distinctions between different degrees of traceability from IP (identity preserved) to different options that allow mixing of various flows. The proliferation of traceability systems and definitions is causing unnecessary confusion, complexity, and costs for different players in different supply chains. The complexities and resulting costs of various CoC standards are a barrier to market access, especially for smaller companies and developing countries.

The aim of this standard is to provide unambiguous specifications of the different traceability levels and the corresponding requirements regarding the chain of custody, which are independent of sectors, raw materials, products, and issues addressed. This multi sector globally applicable ISO standard will serve as a reference point for chain of custody requirements in existing and future standards.

Chain of Custody — Transparency and traceability — Requirements

1 Scope

This International Standard is intended to increase transparency in supply chains by specifying traceability requirements for the individual supply chain actors.

This International Standard specifies a set of requirements to ensure that the products with specified characteristics handled by a supply chain actor (SCA), can be physically and/or administratively connected to a corresponding amount of input material with the same specified characteristics.

This standard defines different supply chain models, their traceability levels and their specific requirements regarding administration, physical handling activities, traceability levels, conversion rates, transactions and stock activities relating to the product et cetera.

These fundamental concepts and principles of chain of custody management cover the whole supply chain and are universally applicable to the following stakeholders:

- organizations seeking sustained success through the implementation of a chain of custody management system;

- customers seeking confidence in an organization's ability to consistently provide products and services conforming to their requirements;

- organizations seeking confidence in their supply chain that product and service requirements will be met;

- organizations and interested parties seeking to improve communication through a common understanding of the vocabulary used by supply chain actors;

- developers of related standards.

This International Standard is applicable in all sectors and to all products with specific characteristics, which are transferred between two or more SCA's. Services are not included in the scope of this Standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO ab-c:199x, *General title of series of parts — Part c: Title of part*

ISO xyz (all parts), *General title of the series of parts*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
product
substance, mixture of substances, material or object resulting from physical handling

Note 1 to entry: Product can be an intermediate, material, semi-finished or final product.

3.2
physical handling
processing, receipt, repacking, storage and dispatch or a combination of these where a risk of mixing occurs

3.3
tracking
ability to trace the history, application or location of a product through the supply chain (upstream > downstream)

3.4
traceability
ability to trace the history, application or location of a product (downstream > upstream)

Note 1 to entry: When considering a **product** or a **service**, traceability can relate to:

— the producer/producer group of materials and parts;

— the processing history;

— the distribution and location of the product or service after delivery.

Note 2 to entry: In the field of metrology, the definition in ISO/IEC Guide 99 is the accepted definition.

[SOURCE   ISO 9000:2015]]

3.5
traceability level
defines to what degree a product can be traced back to its source.

3.6
record
document stating results achieved or providing evidence of activities performed

Note 1 to entry: Records can be used, for example, to formalize traceability and to provide evidence of verification , preventive action and corrective action.

Note 2 to entry: Generally records need not be under revision control.

[SOURCE   ISO 9000:2015]

3.7
verification
confirmation, through the provision of objective evidence , that specified requirements have been fulfilled

Note 1 to entry: The objective evidence needed for a verification can be the result of an inspection or of other forms of determination (3.11.1) such as performing alternative calculations or reviewing documents .

Note 2 to entry: The activities carried out for verification are sometimes called a qualification process .

Note 3 to entry: The word "verified" is used to designate the corresponding status.

[SOURCE   ISO 9000:2015]

3.8
characteristic
distinguishing feature

Note 1 to entry: A characteristic can be inherent or assigned.

Note 2 to entry: A characteristic can be qualitative or quantitative.

Note 3 to entry: There are various classes of characteristic, such as the following: a)   physical (e.g. mechanical, electrical, chemical or biological characteristics); b)   sensory (e.g. related to smell, touch, taste, sight, hearing); c)   behavioural (e.g. courtesy, honesty, veracity); d) temporal (e.g. punctuality, reliability, availability, continuity); e) ergonomic (e.g. physiological characteristic, or related to human safety); f)   functional (e.g. maximum speed of an aircraft); g) production process (e.g. sustainably produced)

[SOURCE   ISO 9000:2015]

3.9
supply chain
The series of processes/steps through which products pass from the source up to –but not including- the end user

3.10
supply chain actor
SCA
An entity that operates within the supply chain.

Note 1 to entry: Examples of SCA's are processors, subcontractors, packers, traders, brokers, wholesalers, slaughterhouses, logistics, retail distribution centers, etc.

3.11
source
primary originator of a product with a specified characteristic

Note 1 to entry: Primary origin is typically a raw material supplier, but can also be a manufacturer or processor adding the specified characteristic.

Note 2 to entry: Examples of characteristics are: child labour free, labour conditions, CO_2 emissions, et cetera

3.12
self-assessment
evaluation of its own implementation level of the standards performed by a SCA itself.

3.13
traceability system
manual or automatic administration tool to monitor incoming and outgoing products with specific characteristics within a certain timeframe.

Note 1 to entry: The implementation of a traceability system depends on technical limits inherent to the SCA and products, ad the cost benefits of applying such a system

OR

Totality of data and operations that is capable of maintaining desired information about a product and its components through all or part of its production/and or utilization chain [Source WD/EN ISO 19381-3:2015]

4   General requirements

4.1 Documented management system

The SCA shall have a clearly documented management system, which addresses each Chain of Custody requirement.

The documented management system shall:

a)   specify the personnel responsible for the various requirements of the Chain of Custody Standard.

b)   specify the procedures in place for the implementation of the Chain of Custody Standard. These procedures:

    1)   take into account the traceability level(s);

    2)   specify how records are kept.

c) provides templates, forms, records, and documents necessary for compliance with the standard.

All documentation shall be legible, dated, and up-to-date.

If an SCA makes use of interactive transaction registration system, the SCA shall do this truly accurately (the auditor shall be able to compare data in the system with the administration at the SCA's offices)

4.2 Monitoring

The SCA shall monitor the compliance with all applicable criteria. The frequency is generally based on a risk assessment; at least annually is most common. The internal self-assessment covers all processes and sites handling the product and has been completed under the responsibility of the SCA.

4.3 Record keeping

The SCA shall have documentary evidence of compliance with all requirements of the Chain of Custody standard. This shall include written Chain of Custody procedures. The SCA shall ensure that all records relevant for Chain of Custody are adequately prepared, used and maintained.

All records are a kept for a defined period of time and be able to confirm the status of products held in stock.

The records may consist of written documents and procedures and/or an automated traceability system.

Records of all transactions are available (documents generated when a transaction is registered, or overview of all transactions registered) and should allow validation of the traceability level (at batch level).

Examples of transaction records include:

-    Purchase records including purchase orders, contracts, invoices and records of incoming goods receipts inspections, delivery notes and purchased quantities;

-    Stock records of raw materials, stored and finished products and quantities;

-    Production records;

-    Sales orders, sales invoices issued by the SCA, dispatch information including dates, customers to which the batch or lot was dispatched, quantities of delivery records;

-    Transporter or shipper details.

4.4 Identification of input and output

The SCA operates a system for ensuring, verifying, and monitoring that the purchased product meets the specifications.

This system includes:

a) Verification of invoices and/or documents coming from the supplier.

c) Verification that inputs received are of equal or "higher" traceability level than the output.

d) Ensuring that each purchase is individually identifiable via a unique transaction identification.

Documentation relating to the sale of product includes a reference to the corresponding traceability level.

4.5 Conversion rates

The SCA shall ensure that conversion rates are accurate and justifiable.

The conversion rates used within each processing facility are indicated in the records relating to the transformation of the product, and kept up-to-date.

4.6 Inventory balancing

The SCA makes an overview of the total annual volume purchased and sold product. The overview includes:

— stock remaining from the previous year;

— inputs received;

— inputs still in stock;

— outputs still in stock;

— outputs sold.

The volume sold shall not exceed the volume purchased.

4.7 Volume reconciliation?

4.8 Training

The organization shall have a training plan, which is subject to on-going review and is supported by records of the training provided to staff. Appropriate training shall be provided by the organization for personnel carrying out the tasks critical to the effective implementation of the supply chain certification system. Training shall be specific and relevant to the task(s) performed.

5   Supply chain models for (physical) traceability

5.1 General

Generally, a Chain of Custody involves more than one supply chain actor. The criteria in the standard apply to one SCA. If all companies in the chain have properly implemented the criteria, the result is a well-organized chain of custody.

The product may go through many production and logistical stages when shipped from the source to the seller of the final product. The general CoC requirements applies to any organization throughout the supply chain

that takes legal ownership and/or physically handles the product at a location under the control of the organization including outsourced contractors. Any product can be traded through one of four supply chain models that are described in this standard:

a) Segregation (SG)

This includes identity preserved (IP)

b) Mixed characteristics (MC)

This includes:

— Controlled blending (CB)

— Rolling average (RA)

— Mass balance (MB), also known as volume credit

In addition to these models, Annex B specifies a third, alternative model in which the administrative flow is not necessarily connected to the physical flow of material throughout the supply chain.

c) Book and claim method

For each of the models under a) and b), this section describes specific requirements for control from the source through the supply chain to the end product. In addition this section specifies to which extend the characteristics tracked in the chain my or may not be physically traceable in the product.

As each supply chain model represents a different level of traceability, this International Standard will provide a basis for different applications and sectors. Users may refer to the standard, clearly stating which levels of traceability in the CoC as described in this International Standard are allowed for their systems, and which are not.

Different traceability levels may be used in one supply chain and within one supply chain actor. This choice depends on the traceability level used by the supplying Supply Chain Actor. Throughout the chain, it is only possible to choose a traceability level with a physical link that is equal to or lower than the supplied input. Each of the traceability levels is linked to different options for making product claims at the end of the supply chain regarding the characteristics of the input material.

The following hierarchy applies:

1. Identity Preserved (IP)

2. Segregation (SG)

3. Controlled blending (CB) and Rolling average (RA)

4. Mass balance (MB)

5.2 Segregation (SG)

5.2.1 General

Products from different sources are mixed, based on identical specified characteristics. However, the identity of the specific source may be lost.
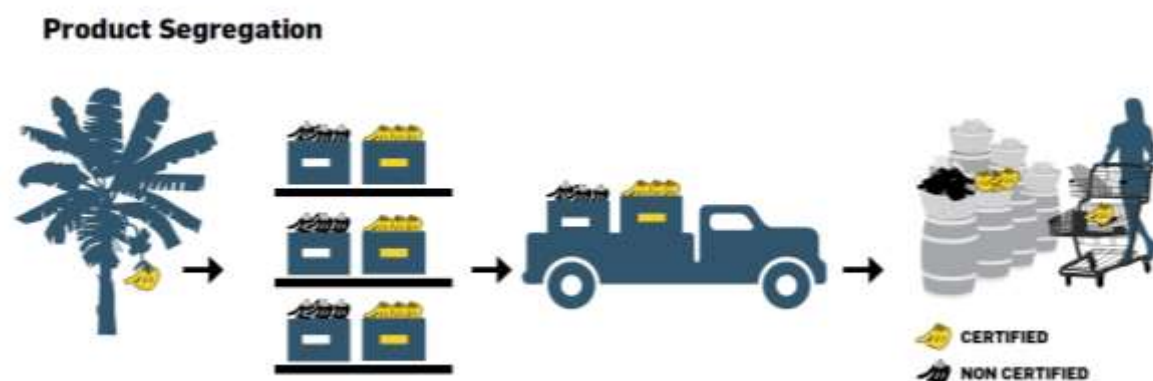
Product Segregation

Figure 1 — Segregation (SG)

[Source: United Nations: A Guide to Traceability – A Practical Approach to Advance Sustainability in Global Supply Chains, pg. 11]]

5.2.2 Supply chain requirements

The segregation model requires that the products with similar characteristics are kept separate at every stage of production, processing, refining and manufacturing throughout the supply chain. This model does allow for the mixing of various sources. Therefore the final product delivered to the end user will not be fully traceable to a single source.

5.2.3 Processing

The site shall assure and verify through clear procedures and record keeping that the products with similar characteristics are kept segregated including during transport and storage.

5.2.4 Identity Preserved (IP)

5.2.4.1 General

The characteristics of a specific source is maintained along the supply chain. The IP product can be traced all the way back to the source that it originates from.

Include flowchart / process figure

5.2.4.2 Supply chain requirements

The processing facility shall ensure that the IP product is kept physically isolated from all other (IP) products and is uniquely traceable to a single source.

5.2.4.3 Processing

The site shall assure and verify through documented procedures and record keeping that the product is kept separate from other material, including during transport and storage.

5.3 Mixed

5.3.1   Controlled Blending (CB)

5.3.1.1   General

Products with specific characteristics are mixed with products without these characteristics. The ratio between these inputs is known for all outputs at all times. The output is a percentage that can be verified.

5.3.1.2   Supply chain requirements

5.3.1.3   Processing

5.3.2   Rolling average (RA)

5.3.2.1   General

Products with specific characteristics are mixed with products without these characteristics. The ratio between these inputs is known but varies over time. The output is an average (percentage).

5.3.2.2   Supply chain requirements

5.3.2.3   Processing

5.3.3   Mass Balance (MB)

5.3.3.1   General

Mass balance traceability allows a proportion of the outputs of a Supply Chain Actor to be sold with certain characteristics, which are corresponding with the quantity of input material with these characteristics (and considering the conversion rates). The input and output materials shall be balanced within a specified timeframe and geographical area. It gives the users the opportunity to track for input material properties in case of continuous processes, multiple input or multi-sites. As the balancing is most of the time based on a credit accounting system, hence mass balance can also be referred to as volume credit.
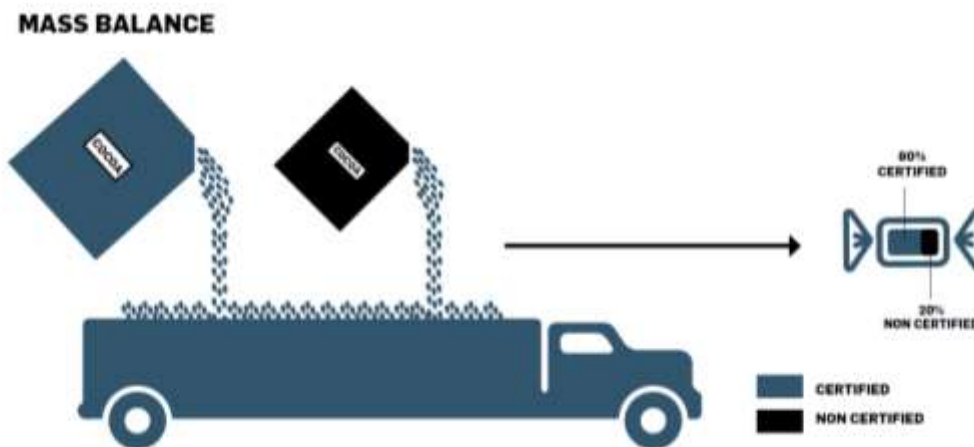
Figure 2 — Mass Balance (MB)

[Source: United Nations: A Guide to Traceability – A Practical Approach to Advance Sustainability in Global Supply Chains, pg. 12]

5.3.3.2   Supply chain requirements

The basis of the supply chain requirements for Mass Balance will consist of reconciliation between the quantity of product bought and the quantity of product sold. This includes control of purchases and sales of the product and its derivatives which will be independently verified. There are no requirements for separate storing or controls in the production process.

5.3.3.3   Processing

The site shall ensure that the quantity of physical product inputs and outputs (volume or weight) at the physical site are monitored.

The processing facility shall ensure that the output supplied to customers from the physical site does not exceed the input received at the physical site, using either a continuous accounting system or a fixed inventory period.

5.3.3.4   Continuous accounting system

5.3.3.5   Fixed inventory periods

- start with positive stock?

- is SCA allowed to sell short? (product can be sold before it has arrived) / does stock include deliveries under way.

Difference between selling, shipping announcement and delivery.

Administrative traceability of a product.

Annex A
(normative)

Types of characteristics

The following is a classification of characteristics which are often traced using a chain of custody system.

I Product intrinsic characteristics

These are characteristics which are determining the product and its possibilities for processing or application.

a) Dimensions, fluidity

b) Physical (mechanical ,chemical, biological characteristics (e.g. heartwood, fiber structure, chemical composition)

c) Sensory (smell, touch, taste, sight, hearing)

d) Performance/behavior characteristics(e.g. strength, flexibility, durability, courtesy, honesty)

II (Historical) production process characteristics

These are characteristics which are related to the processing in the supply chain, which may are may not physically affect the product.

— Process characteristics which affect the product characteristics (e.g grinding of wood for pulp production, sawing of logs)

— Process characteristics which do not affect the product determining characteristics (e.g. sustainable production of raw material; ILO compliance during manufacturing)

Annex B
(informative)

Book & Claim method

Description of the book & claim method

11

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