Aluminium Stewardship Initiative

ASI Chain of Custody (CoC) Standard V1 – Guidance

December 2017

Aluminium Stewardship Initiative (ASI)

ASI is a not-for-profit standards setting and certification organisation for the aluminium value chain.

Our **vision** is to maximise the contribution of aluminium to a sustainable society.

Our **mission** is to recognise and collaboratively foster responsible production, sourcing and stewardship of aluminium.

Our **values** include:

- Being inclusive in our work and decision making processes by promoting and enabling the participation of representatives in all relevant stakeholder groups.
- Encouraging uptake throughout the bauxite, alumina and aluminium value chain, from mine to downstream users.
- Advancing material stewardship as a shared responsibility in the lifecycle of aluminium from extraction, production, use and recycling.

General Enquiries

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Disclaimer

This document does not intend to, nor does it, replace, contravene or otherwise alter the requirements of the ASI Constitution or any applicable national, state or local government laws, regulations or other requirements regarding the matters included herein. This document gives general guidance only and should be not be regarded as a complete and authoritative statement on the subject matter contained herein. ASI documents are updated from time to time, and the version posted on the ASI website supersedes all other earlier versions.

The official language of ASI is English. ASI aims to make translations available in a range of languages and these will be posted on the ASI website. In the case of inconsistency between versions, reference shall default to the official language version.

ASI Chain of Custody – Standards Guidance

Contents

Introduction

1. Introducing Chain of Custody

The Aluminium Stewardship Initiative (ASI) has developed Chain of Custody (CoC) Certification to support businesses in the aluminium value chain that wish to provide their customers and stakeholders with independent assurance for responsible production and sourcing of Aluminium.

A 'chain of custody' is a documented sequence of custody of material as it is transferred along the supply chain. Chain of custody systems can provide an important point of differentiation and confidence in the business practices involved in the various stages of production.

Certification of these systems provides recognisable assurance to customers, consumers and stakeholders against a known standard. This can add value to a company's products and help protect and enhance reputation.

Depending on the type of business, ASI CoC Certification may provide value to businesses in the aluminium value chain to:

- Support responsible mining, refining and smelting practices
- Support responsible recycling and stewardship of aluminium
- Reduce business liability costs
- Enhance reputation through responsible sourcing
- Carry out due diligence of the supply chain
- Access reliable data on sustainability metrics of aluminium
- Respond to the requests of customers, both business to business and retail
- Expand markets and customers
- Meet or prepare for regulatory compliance requirements.

Participating in a chain of custody program is an individual business decision. The costs and benefits of introducing chain of custody systems within a business are usually linked to:

- How it could be used to optimise business activities and supply chains
- How much it will cost to develop and implement new CoC systems
- How quickly benefits can be achieved to make the investment viable

ASI CoC Certification is voluntary for ASI Members, though encouraged. While a commitment to ASI Certification against the Performance Standard is compulsory for businesses which choose to join ASI in the 'Production and Transformation' and 'Industrial Users' membership classes, CoC Certification is optional for ASI Members because of ASI's commitment to compliance with anti-trust laws.

Over time, ASI's overall objective with its CoC Standard is to increase the supply of, and demand for, ASI Aluminium through the global value chain so as to provide independent assurance of responsible production, sourcing and stewardship of aluminium.

2. Key principles for ASI Chain of Custody

The ASI Chain of Custody (CoC) Standard has been designed around the following key principles:

- CoC Certification can be sought at a Business or Facility level.
- Both Primary Aluminium and Recycled Aluminium are specifically addressed.
- The main focus is on the flow of CoC Material.
    - Criteria for confirming eligible inputs are set out.
- Non-CoC Material is subject to due diligence addressing key aspects of the ASI Performance Standard.
- A Mass Balance System allows for CoC and Non-CoC Material to be mixed over a defined period, and at any stage in the supply chain.
    - CoC Documents are used to transfer required and optional information about CoC Material to the next Entity.
- A Market Credits System is provided as an alternative to the Mass Balance System where it is difficult for Post-Casthouse businesses to build an unbroken chain of custody for physical material.
    - ASI Credits Certificates are used to allocate non-physical credits that are linked back to physical ASI Aluminium produced at a Casthouse.
- The overall aim is to recognise and reward uptake of the ASI Performance Standard through diverse aluminium supply chains.

3. What is CoC Material?

CoC Material is a collective term for ASI Bauxite, ASI Alumina, ASI Liquid Metal, ASI Cold Metal and ASI Aluminium produced by ASI CoC Certified Entities in accordance with the CoC Standard.

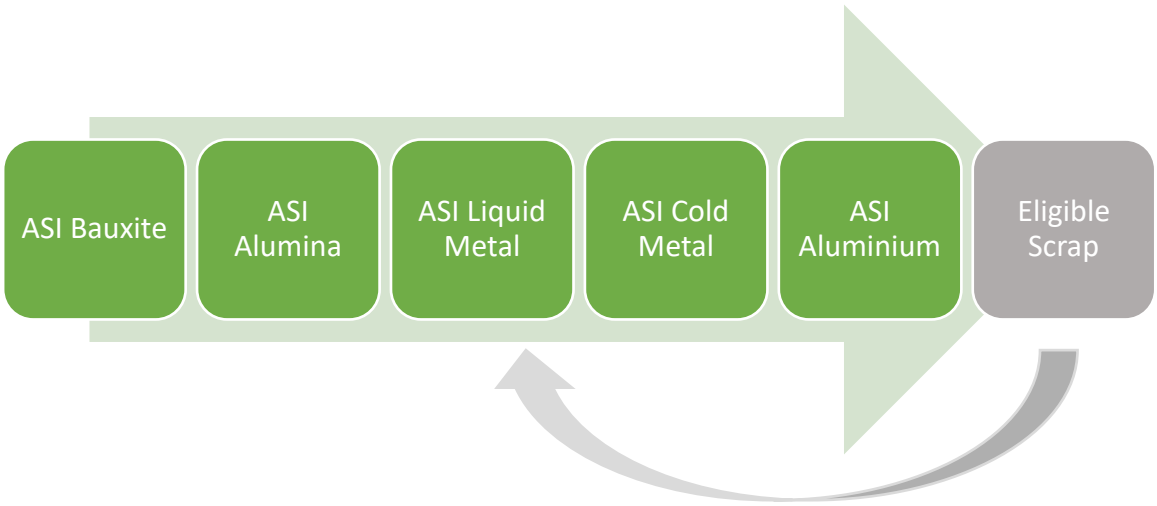


Figure 1 – Types of CoC Material

At various points in the CoC Standard, the term 'CoC Material' may be used to mean any of these, or one of the specific terms above may be used instead. ASI Liquid Metal and ASI Cold Metal are specific forms of ASI Aluminium. Eligible Scrap is another kind of input, but is not CoC Material until it is designated ASI Aluminium following re-melting and/or refining, so is referred to separately.

4. CoC Systems in the ASI CoC Standard

Many sustainability standards support multiple chain of custody systems, to provide a range of pathways for businesses who seek to increase their responsible sourcing. The ASI CoC Standard supports two approaches:

- **Up to and including the Casthouse**: a Mass Balance System
- **Post-Casthouse**: a Mass Balance System OR a Market Credits System

In the **Mass Balance** system, mixing of CoC and Non-CoC Material is allowed over a defined period, and at any stage of the production process. This means that CoC status is allocated to a quantity of output material after each stage of mixing, so there is no guarantee at an atomic level that it contains 'certified product'. However the quantity of inputs and outputs are monitored through a material accounting system to ensure that these are in proportion. Every stage where further processing or mixing occurs requires CoC Certification to continue the CoC status for output material. Mass Balance is a very common approach for commodity supply chains where segregation of CoC and Non-CoC Material is impossible or prohibitively costly. It also makes sense where there is no physical difference between CoC and Non-CoC Material (unlike, say, organic agricultural produce), and the aim is to support responsible production practices at an industry rather than a product level.

The **Market Credits** system is the second option available only to Post-Casthouse entities that cannot create an unbroken chain of CoC Certified entities between Casthouse Products and themselves. This situation is more likely to arise where supply chains become long and/or complex, given that it takes time to build participation through each step in the supply chain. The Market Credits system links a specific quantity of output CoC Material from the mid-point of aluminium supply chains and allows this to be allocated as ASI Credits to a downstream company via a certificate. This provides entry level access to downstream companies to support responsible production practices, and helps stimulate and recognise upstream efforts to supply CoC Material. These kinds of systems are used in a range of sectors, including renewable energy, biomaterials, palm oil, sugar and precious metals, to provide a cost-effective avenue for companies to begin responsible sourcing programs and/or to help drive industry investment in sustainability performance.

5. Key stages for material flows in the aluminium value chain

The ASI CoC Standard defines 3 key stages for the flow of CoC Material in supply chains. These stages involve quite different kinds of entities responsible for handling raw materials, metal production, and further fabrication and manufacturing to final products:

- **Primary Aluminium**: Mine to Casthouse
- **Recycled Aluminium**: Scrap to Casthouse
- **Post-Casthouse**: Semi-fabrication and manufacturing to final product.

Figure 2 – Key stages for material flow, centred around the Casthouse

a. The Casthouse

The defined stages above position the aluminium Casthouse, where liquid metal is cast into standardised shapes and/or alloys, as a key 'choke point' in the aluminium supply chain. Casthouses (for both primary and recycled production) represent the common starting point for Post-Casthouse semi-fabrication of aluminium and subsequent downstream manufacturing.

Casthouse Products come in a variety of weights and alloy specifications, depending on customer or market requirements, and include:

- Foundry alloys
  - Foundry alloy ingots – for casting (sand, permanent and die casting), particularly in the automotive sector
  - Remelt ingots – non-alloyed metal used to supply foundry alloys
  - High purity ingots – used for manufacture of super purity and other products
- Wrought alloys
  - Rolling and sheet ingots, blocks and slabs – for production of plates, strip and foil
  - Extrusion billets – for extruded profiles
  - Wire rod – for high voltage cable and wire production
  - High purity in various shapes – for electronics and technical applications
  - Remelt ingots – non-alloyed metal
- In some cases, alloyed Liquid Metal that is shipped directly to a customer for semi-fabrication.

These Casthouse Products have unique identification or batch numbers stamped or printed on or associated with the products, to ensure traceability for quality purposes, often relating to alloying composition, production dates and/or the producing casthouse. Casthouse Products may be delivered direct to customers, or indirectly via third-party warehouses or traders.

The sections below focus on the entities in each of these stages which *transform* physical material through the aluminium value chain.

b. Primary Aluminium

For **Primary Aluminium**, the CoC Standard aims to support the implementation of responsible bauxite mining, alumina refining and aluminium smelting practices as outlined in the ASI Performance Standard.

Primary aluminium activities are globally distributed. In 2015, bauxite mining was concentrated in Australia, Brazil, China, Guinea, India, Jamaica and Malaysia which collectively accounted for approximately 90% of global bauxite production.[1] The majority of alumina refining takes place in Australia, Brazil and China which in 2015 produced approximately 75% of global alumina production.[2] Aluminium smelting has become increasingly active in China, which alone accounted for approximately 55% of global primary aluminium in May 2016, with smelters in North America, Western Europe, Eastern and Central Europe, and the Gulf Countries producing a further 30%.[3]

[1] http://minerals.usgs.gov/minerals/pubs/commodity/bauxite/mcs-2016-bauxi.pdf
[2] http://minerals.usgs.gov/minerals/pubs/commodity/bauxite/mcs-2016-bauxi.pdf
[3] http://www.world-aluminium.org/statistics/primary-aluminium-production/ (May 2016 figures)

The bauxite mining, alumina refining and aluminium smelting stages of the aluminium value chain have relatively concentrated and vertically integrated ownership, with the top 10 producer companies accounting for approximately 50% of global primary production in 2014.[4]

Usually, though not always, Casthouses are located near or alongside the smelter. It is important to note that Casthouses usually require a certain proportion of 'cold metal' as an ingredient in the final casting process. For production reasons, this may come from other aluminium smelters or re-melters/refiners than those that provide the liquid metal input. Casthouses may also re-melt internally generated scrap, such as off-spec production or offcuts, and may add liquid metal internally recovered from dross from the melting and holding furnaces.

This means that refiners, smelters and Casthouses each usually each have multiple sources of supplies of their raw materials. It is worth noting, however, that bauxites from different locations exhibit different properties, including silica levels, bauxite grade, alumina content and handling properties. Refiners are usually tailored to process bauxite from a particular region so as to achieve the most efficient production of alumina.

Figure 3 – Primary Aluminium

c. Recycled Aluminium

For **Recycled Aluminium**, the CoC Standard aims to support the implementation of material stewardship and recycling initiatives as outlined in the ASI Performance Standard. Recycling inputs can be pre-consumer, such as from processing and manufacturing of aluminium and aluminium-containing products, and post-consumer, including from packaging (e.g. used beverage cans), automotive, building and construction and other consumer items.

Unlike primary production, the recycled aluminium chain is highly fragmented, with tens of thousands of entities, including large companies through to small to medium enterprises (SMEs) as well as municipal collection programs, involved at various stages. In developing countries and emerging economies, some scrap collection, sorting and recycling is done in the informal sector and may use poor environmental, health and safety practices.[5]

While some products (e.g. beverage cans) have short lifespans before being recycled, other products (e.g. cars, building windows) have much longer lifespans lasting in the tens of years. Overall, the global market demand for aluminium is growing, so primary production is still needed since the available quantity of end-of-life aluminium falls considerably short of demand. Recycling of aluminium brings considerable environmental

[4] Calculated from http://www.world-aluminium.org/statistics/primary-aluminium-production/ (2014 figures) and http://www.aluminiumleader.com/economics/world_market/

[5] An ISO process has developed *ISO IWA 19 Guidance Principles for the Sustainable Management of Secondary Metals* as a means to help stimulate formalisation of such enterprises and the development of enabling government policy frameworks: http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=69354

benefits and aluminium's ready recyclability is one of its key benefits.[6] Furthermore, as primary production shifts from Europe and North America to Asia, recycled production has become increasingly significant in meeting domestic demand in some markets. In North America, for example, approximately 40% of aluminium supply is created through recycled production.[7]

As for primary production, the Casthouses for recycled production usually require 'cold metal' for the casting process, but often also to achieve certain alloying specifications. The 'cold metal' is usually from primary production but may also be generated from internal or external slag and dross processing. Similarly, internally generated scrap is also usually re-used internally, either as an input to re-melting/refining or directly to the Casthouse as 'cold metal'. Casthouse products include ingots, slabs, bars, billets, wire rod or other speciality products, or Liquid Metal may be supplied to a customer or internally as part of an integrated operation for the next stage of semi-fabrication and/or further downstream processing and manufacturing of finished products.

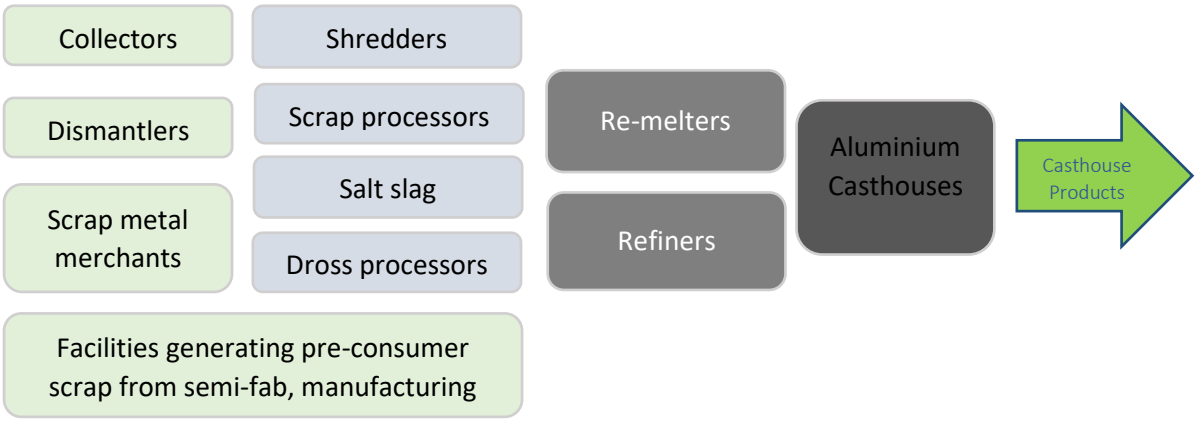


Figure 4 – Recycled Aluminium

d. Post-Casthouse

In the **Post-Casthouse** part of the aluminium value chain, there are a huge variety of downstream sectors and suppliers that process and use aluminium.

Semi-fabrication of aluminium is usually the first step Post-Casthouse, in the form of extrusion, rolling and other speciality processes (for example, to produce powders, flakes and pastes) that can create a very wide range of products as inputs to subsequent manufacturing. As noted above, some facilities have integrated casting and rolling or extrusion operations. Foundries, forgers and material converters use Casthouse Products and/or semi-fabricated products as the inputs to their own processes, which in turn feed into the necessary downstream stages to create finished products.

Sectors that use these products as inputs to their own material conversion, manufacturing, and further production, assembly, fabrication and/or construction include the following (with estimates of share of aluminium consumption in 2014):[8]

[6] http://recycling.world-aluminium.org/uploads/media/fl0000217.pdf
[7] http://www.aluminum.org/industries/production/secondary-production
[8] http://www.aluminiumleader.com/economics/world_market/

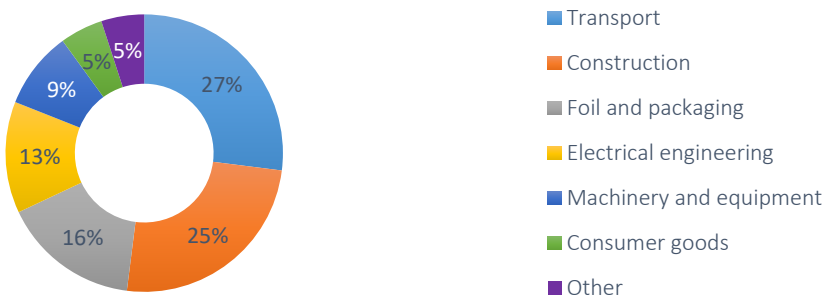


Figure 5 – Aluminium use sectors and share of 2014 consumption

In this part of the value chain, there could be hundreds of thousands to millions of businesses worldwide that use aluminium in component or product manufacturing in these sectors. These would include every size of business from micro to multinationals, located in nearly every country in the world. While some downstream supply chains are short, simple and/or high volume, many rely on multiple and/or regularly changing suppliers to ensure continuity of supply or meet evolving price or quality specifications. Longer supply chains are also common, where there are multiple tiers of suppliers for complex components and products.

Figure 6 illustrates the types of entities engaged in downstream manufacturing and processing through to final consumer or commercial products, heavily simplifying the number and range.

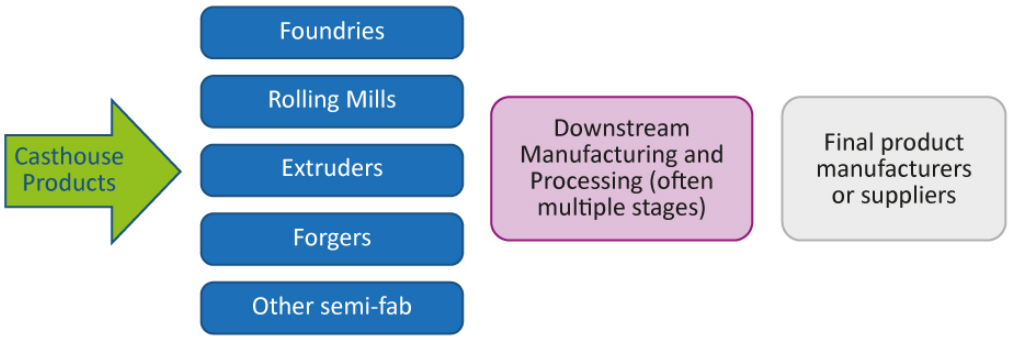


Figure 6 – Post-Casthouse

6. What is Eligible to become ASI Aluminium?

The CoC Standard sets out the management systems required to confirm the eligible inputs of CoC Material (ASI Bauxite, ASI Alumina, ASI Liquid Metal and ASI Cold Metal) and Eligible Scrap to produce ASI Aluminium. Non-CoC Material and Non-Eligible Scrap is material that does not meet the requirements of the CoC Standard for inputs and/or outputs of CoC Material.

Under the Mass Balance System, these various inputs can be mixed at each stage, and the quantities of CoC Material output are controlled according to the requirements in section 8 of the CoC Standard. The screening and flow of these various inputs and outputs is illustrated in Figure 7 below, in this example, at a Facility level. Note that 'ASI Certified' means these Facilities must be within the Certification Scope of Entities that are certified against **both** the ASI Performance Standard and the ASI Chain of Custody Standard. These requirements are set out in sections 3, 4, 5 and 6 of the CoC Standard.

Due Diligence applies to both Non-CoC Material and Recyclable Scrap Material inputs and the requirements are set out in section 7 of the CoC Standard. Entities need to establish appropriate due diligence systems, including a policy, risk assessment and mitigation, and a complaints mechanism directed towards aluminium supply chain risks. For the ASI CoC Standard, the key risk areas are linked to the ASI Performance Standard through the following criteria:

- Anti-corruption
- Responsible Sourcing
- Human Rights Due Diligence
- Conflict Affected and High Risk Areas

Section 4.2 of the Standard refers to Due Diligence requirements in section 7 for Post-Consumer Scrap, specifying the conditions under which it can be Eligible Scrap.

While Figure 7 illustrates flows at a Facility level, some Entities may include multiple Facilities within the one CoC Certification Scope. So Due Diligence could also or instead be applied at a whole of Entity level, directed to non-CoC Certified suppliers outside of the Entity itself.

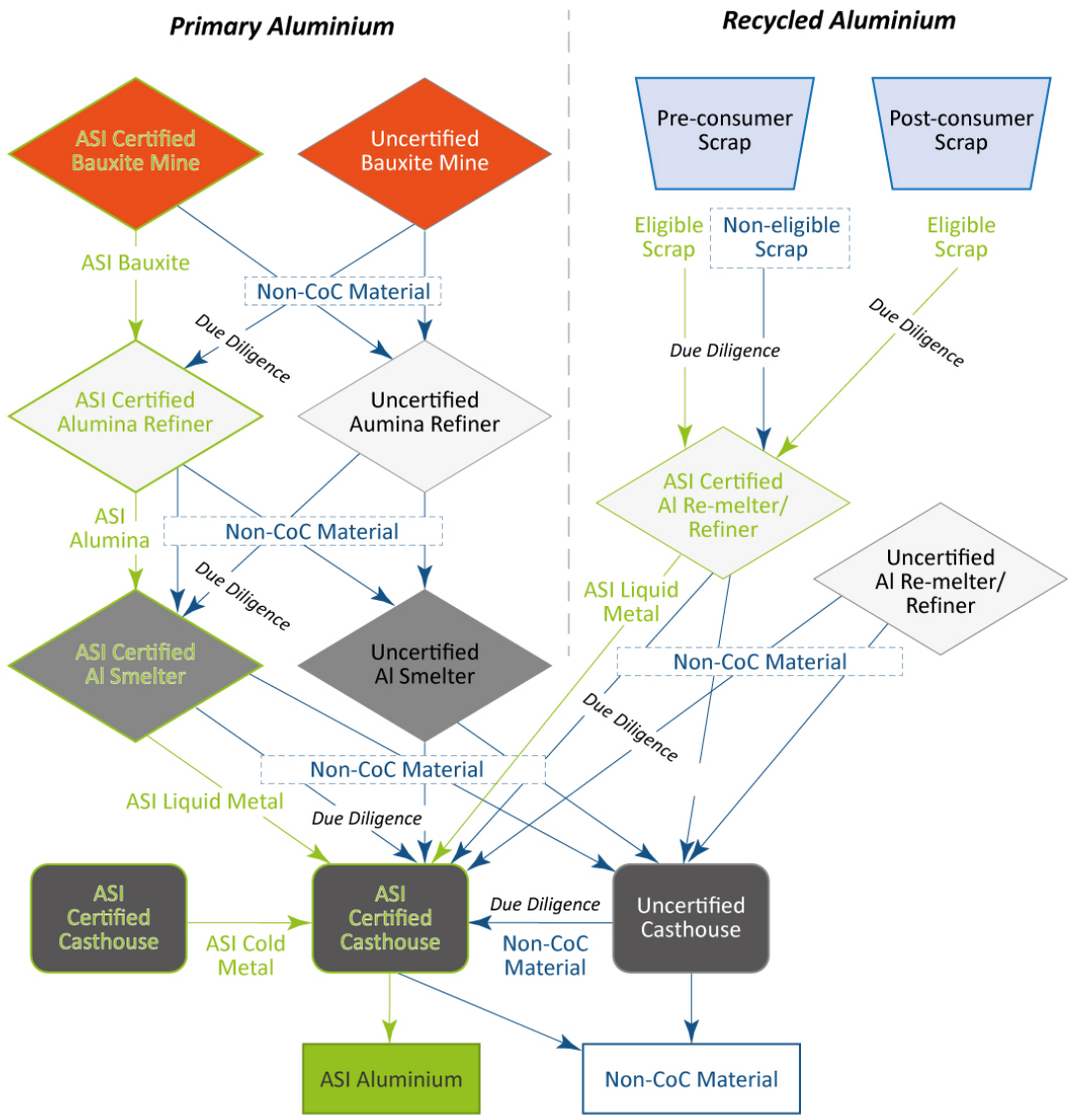


Figure 7 – Screening and Flow of CoC Material and Eligible Scrap to ASI Aluminium – Primary and Recycled to Casthouse

7. Post-Casthouse Flows of ASI Aluminium and ASI Credits

Figure 8 below shows the flow of physical ASI Aluminium (through the Mass Balance System, where there is mixing of CoC and non-CoC Material at every stage) and non-physical ASI Credits (through the Market Credits System, which are decoupled from physical flows). Only CoC Certified Entities are shown for simplicity, though of course non-CoC Certified Entities will be common in the Post-Casthouse part of aluminium supply chains. Green arrows indicate ASI Aluminium and dark blue arrows indicate Non-CoC Material (to which due diligence must always be applied). Green dashed arrows indicate ASI Credits on the non-physical side.

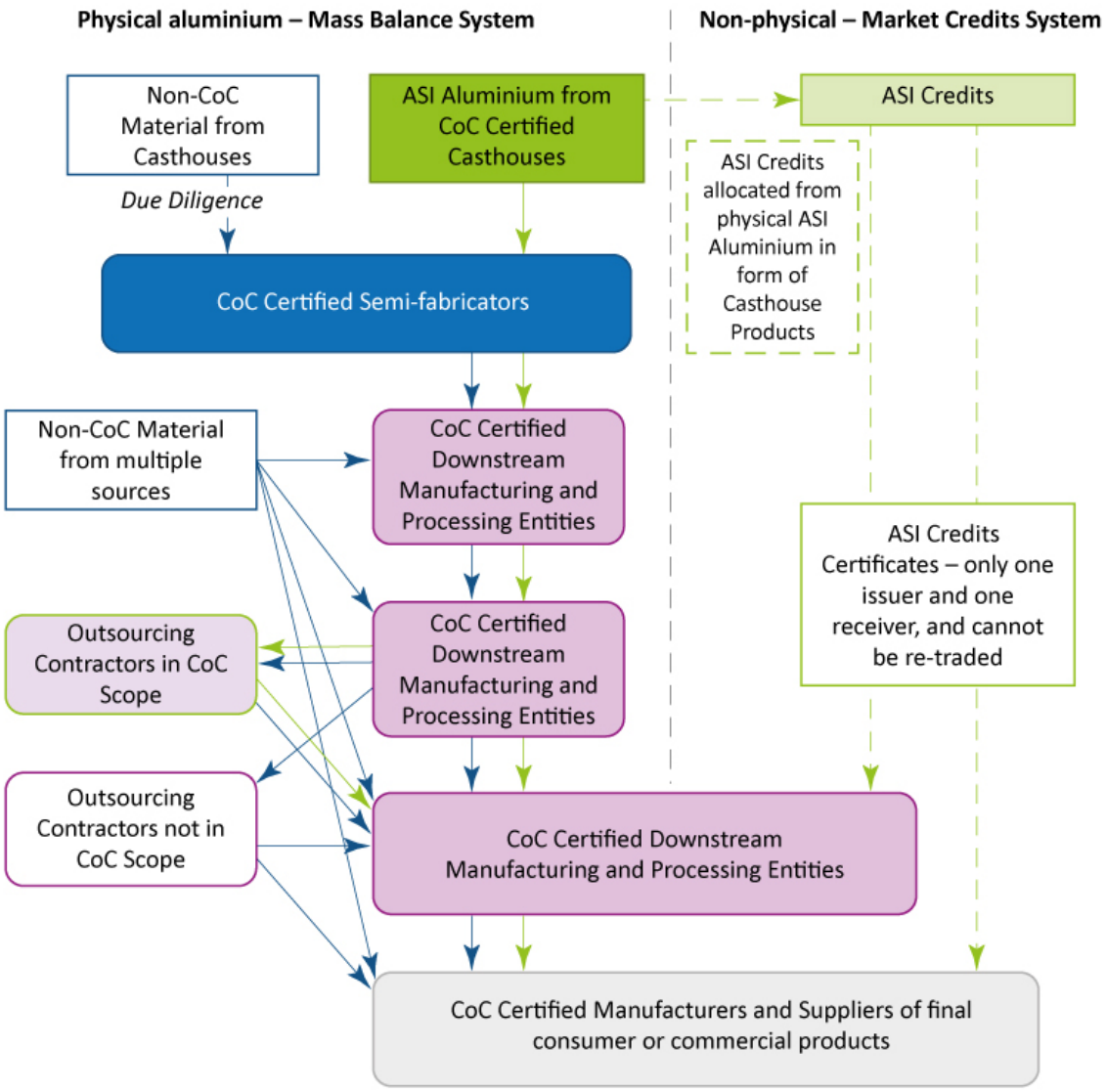


Figure 8 – Screening and Flow of CoC Material and Eligible Scrap to ASI Aluminium – Primary and Recycled to Casthouse

ASI Chain of Custody (CoC) Standards Guidance

About this Guidance

The ASI CoC Standard outlines the requirements for CoC Certification. This CoC Standards Guidance has been developed as a resource to assist ASI Members seeking CoC Certification, and for ASI Accredited Auditors carrying out independent third party audits. It is also publicly available to anyone who wishes to find out more about establishing Chain-of-Custody systems and ASI's standards.

The ASI CoC Standard is structured into three sections, which set the necessary framework for managing robust Chain of Custody systems:

A. **Sections 1– 2. General CoC Management:** Management System and Responsibilities; Outsourcing Contractors.
B. **Sections 4 – 7. Confirming Eligible Inputs:** Primary Aluminium; Recycled Aluminium; Casthouses; Post-Casthouse; Due Diligence.
C. **Sections 8 – 12. CoC Accounting, Documentation and Claims:** Mass Balance System; Issuing CoC Documents; Receiving CoC Documents; Market Credits System; Claims and Communications.

The CoC Standards Guidance is similarly organised to address each of the above sections, providing general guidance to businesses wishing to implement systems and procedures that can comply with the ASI CoC Standard.

Like the ASI Performance Standard, the CoC Standard sets out requirements for what a business must be able to do, but does not prescribe how systems and procedures are designed and implemented to achieve this. The CoC Standards Guidance therefore offers background, explanation and points to consider, however these are general guidance only and non-prescriptive. The ASI CoC Standard is the final point of reference.

Summary of Applicability

In Table 1 below, the top row sets out relevant stages in the aluminium supply chain and the left hand column sets out the 12 sections in the ASI CoC Standard. The shading highlights applicable requirements for each stage. Out of the 12 sections, a subset are applicable to an individual supply chain stage, as highlighted in green and yellow (where relevant). An Entity may have more than one supply chain stage in their CoC Certification Scope.

Code:

Applicable	Applicable if relevant	Not Applicable

Stages / Sections	Bauxite Mining	Alumina Refining	Aluminium Smelting	Aluminium Re-Melting/ Refining	Casthouses	Post-Casthouse
1. Management System and Responsibilities						
2. Outsourcing Contractors						
3. Primary Aluminium						
4. Secondary Aluminium						
5. Casthouses						
6. Post-Casthouse						
7. Due Diligence						
8. Mass Balance System						
9. Issuing CoC Documents						
10. Receiving CoC Documents						
11. Market Credits System						
12. Claims and Communications						

Table 1 – Applicability of sections in the ASI CoC Standard to various stages in aluminium supply chains

A. CoC Management and Controls

1. Management system and responsibilities

Section 1 outlines the general elements of management systems an Entity needs to effectively implement the ASI CoC Standard. An Entity may consist of a single Facility or multiple Facilities, but must be under the control of an ASI Member to link to the ASI's membership obligations and the ASI Complaints Mechanism. The criteria in this section can usually be integrated into existing management systems relevant to managing sales, sourcing and inventory.

Applicability

Criteria 1.1-1.7 are applicable to all Entities seeking CoC Certification.

Supply chain activity	Applicability of CoC Standard Criteria						
	1.1	1.2	1.3	1.4	1.5	1.6	1.7
Bauxite Mining							
Alumina Refining							
Aluminium Smelting							
Aluminium Re-melting/Refining							
Casthouses							
Post-Casthouse							

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

The ability for a Member/Entity to conform with the ASI CoC Standard will primarily rest on having a Management System in place to address all applicable parts of the Standard.

A Management System is defined as 'management processes and documentation that collectively prove a systematic framework for ensuring that tasks are performed correctly, consistently and effectively to achieve the desired outcomes, and to drive continual improvement in performance.'

For a Management System to work effectively:

- People must be trained and competent to understand their responsibilities,
- Processes must be established to define what tasks and work activities need to be carried out, and
- Appropriate data and records management is required to ensure consistent, measurable and traceable results.

In practice, the Management Systems that will be developed for the CoC Standard will take many different forms depending on a range of factors, such as:

- the nature of business activities
- the types of materials being handled
- the number, size and scale of relevant Facilities
- the level of integration with IT systems
- the degree of automation of processes.

Depending on these factors, an appropriate Management System for a given CoC Certification Scope might be:

- implemented at a Facility level and/or at an Entity (whole of business) level
- developed as a new management system, or extended or adapted from existing management system/s.

The Entity can consider how best to design its Management System to meet the CoC Standard, noting that it may evolve over time and with implementation experience.

Note that ASI is bound by its Anti-Trust Compliance Policy and Confidentiality Policy in dealing with commercially sensitive information. These policies are available on the ASI website at https://aluminium-stewardship.org/about-asi/legal-finance-policies/

What is the 'Entity'?

The CoC Standard puts responsibilities on the 'Entity' – which is defined in the Glossary as:

'A business or similar which is under the ownership or Control of a Member. An Entity can constitute part or whole of an ASI Member. In relation to the application of the CoC Standard, the Entity seeks or holds CoC Certification and is responsible for implementation of the CoC Standard in the defined CoC Certification Scope.'

An Entity can therefore be an ASI Member as a whole, or under the Control of an ASI Member, such as a division of the business, a group of related Facilities or a single Facility.

The CoC Certification Scope needs to set the boundaries for the inputs and outputs of all CoC Material across the Entity (and any Outsourcing Contractors). The Entity defines what is in its CoC Certification Scope as part of the initial Self-Assessment process. For more information on how to do this, see the ASI Assurance Manual.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

1.1	**The Entity seeking CoC Certification shall be an ASI Member in good standing in the Production and Transformation or Industrial Users membership classes, or under the Control of such an ASI Member, thereby committing to comply with ASI's membership obligations and the ASI Complaints Mechanism.**

Points to consider:

- ASI Members in the 'Production and Transformation' and 'Industrial Users' membership classes are the only types of organisations eligible to seek ASI Certification.
- ASI Membership covering the Entity seeking CoC Certification means that that the Entity has committed to ASI's membership obligations, which include:
  - being bound by ASI's Constitution
  - agreeing to support ASI's mission
  - not being engaged in any activity which would be likely to bring ASI into disrepute
  - agreeing that ASI membership and/or certification may be terminated, withdrawn or suspended due to its actions or omissions, including as a result of the outcomes of any ASI Complaints Mechanism process

- agreeing to comply with the ASI Anti-Trust Compliance Policy
- agreeing to comply with ASI's requirements re the use of ASI's logo and ASI-related claims.

- Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
- If there is any question as to whether the Entity falls within the Control of an ASI Member, contact the ASI Secretariat: info@aluminium-stewardship.org

1.2	The Entity shall have a Management System that addresses all applicable requirements of the CoC Standard, in all Facilities under the Control of the Entity that have Custody of CoC Material.

Points to consider:

- A Management System can take many different forms, however it should be effective across the defined CoC Certification Scope of the Entity seeking CoC Certification.
- The applicable requirements of the CoC Standard can often be integrated into existing management systems relevant to managing sales, sourcing, process flow and/or inventory.
- Whichever approach is taken to the design and scope of the Entity's Management System, in each case an ASI Accredited Auditor will look for objective evidence that it can fulfil the requirements of the CoC Standard.
- Adequate resources (financial, human, information technology, etc.) should be available to carry out the relevant tasks and activities.
- Supporting procedures for CoC management systems that are relevant to particular employees should reflect the scale and complexity of the operations to which they will apply and be available at the point of use.
- Note that for all Entities, the Entity's Management System must include a Material Accounting System (see sections 8 and 11).
- More specific guidance on how management systems should address sections 2-12 of the CoC Standard (as applicable) can be found in the subsequent sections in this CoC Standards Guidance.

1.3	The Entity shall ensure that the Management System for criteria 1.2 are periodically reviewed and updated in light of implementation experience and to address potential areas of non-conformance.

Points to consider:

- Management systems should be regularly reviewed: at least every three years is recommended though this may be more frequently as required.
- Personnel should be encouraged to identify potential improvements to CoC management systems.
- Revisions should strive for continuous improvement and take account of:
  - The company's experience gained during implementation
  - The findings of internal reviews or audits
  - Recommendations from ASI Audits
  - The introduction of new or revised requirements in ASI Standards
  - The need for additional training and/or communications measures

1.4	The Entity shall nominate at least one Management Representative as having overall responsibility and authority for the Entity's conformance with all applicable requirements of the CoC Standard.

Points to consider:

- Make sure there is a clear designation of a responsible manager with appropriate responsibility and authority for the CoC Standard.
- This should be someone who can effectively interface with all the relevant parts of the business that will have responsibilities for conformance with the CoC Standard.

- Consider how internal co-ordination can be enhanced, for example through an internal working group or committee, and/or by including it on the agenda of regular management meetings.

1.5	The Entity shall establish and implement communications and training measures that make relevant personnel aware of and competent in their responsibilities under the CoC Standard.

Points to consider:

- Management systems are only effective when people are trained and competent to understand their responsibilities.
- The responsible manager in 1.4, or their delegate, should oversee training and communications for relevant personnel.
- Keep records of training material, and a register of when training and/or communications were delivered, to which personnel.

1.6	The Entity shall maintain up to date records covering all applicable requirements of the CoC Standard and shall retain them for a minimum of five (5) years.

Points to consider:

- Record keeping is fundamental to any business as a way of managing important data and information.
- Reliable record keeping enhances accountability and allows businesses to measure progress over time.
- Records should be maintained for all applicable parts of the CoC Standard, as these are an important form of objective evidence for ASI Accredited Auditors.
- Records may be kept for longer than 5 years in accordance with regulatory requirements or the Entity's internal policy.

1.7	The Entity shall report the following information to the ASI Secretariat within 3 months after the end of each calendar year, as applicable: a. All Entities: Input and Output Quantities of CoC Material/s over the calendar year. b. All Entities: Input Percentage/s calculated for the calendar year. c. All Entities: the maximum Positive Balance in the calendar year carried over to the subsequent Material Accounting Period, if any. d. All Entities: the maximum Internal Overdraw within the calendar year, if any, and the percentage of Input Quantity of CoC Material this represents. e. Entities engaged in Aluminium Re-melting/Refining to produce Recycled Aluminium: total Input Quantity of Eligible Scrap, with a breakdown by Post-Consumer Scrap and Pre-Consumer Scrap that is designated as CoC Material supplied directly from a CoC Certified Entity, in the calendar year. f. Entities engaged in producing Casthouse Products: quantity of ASI Aluminium allocated to ASI Credits in the calendar year. g. Post-Casthouse Entities using ASI Credits: quantity of ASI Credits purchased in the calendar year.

Points to consider:

- The ASI Secretariat requires reporting of this required information to enable oversight of CoC Standard implementation at a whole of value chain-level, to:
    - Detect potentially fraudulent or non-conformant behaviour through the identification of anomalies in aggregate inputs and outputs;
    - Support ASI's Monitoring and Evaluation program designed to assess ASI's overall impacts and progress towards desired changes in the ASI Theory of Change.

- The individual data reported to the ASI Secretariat will be kept secure and confidential and will not be made publicly available. It will be used to support aggregate reporting where relevant.
    - Note that ASI is bound by its Anti-Trust Compliance Policy and Confidentiality Policy in dealing with commercially sensitive information. These policies are available on the ASI website at https://aluminium-stewardship.org/about-asi/legal-finance-policies/
- An Entity is free to choose its own Material Accounting Period, however the ASI Secretariat requires reporting of the information in criteria 1.7 on a calendar year basis. This may be a consideration for your choice of Material Accounting Period and/or the design of your Material Accounting System, to enable streamlining of reporting.
- Criteria 1.7(a) and (b) apply to all Entities. This information should be recorded and available from the Entity's Material Accounting System, and if necessary re-calculated for the calendar year where this is different from the Entity's defined Material Accounting Period.
- Criteria 1.7(c) only applies to Entities that carry over a Positive Balance. The maximum amount that any Positive Balance of CoC Material reached in a calendar year should be reported to ASI (with the unit of measurement). If different types of CoC Material are handled (e.g. ASI Bauxite and ASI Alumina) Positive Balances for each should be reported separately.
- Criteria 1.7(d) only applies to Entities that carry over an Internal Overdraw. The maximum amount that any Internal Overdraw of CoC Material reached in a calendar year should be reported to the ASI Secretariat (with the unit of measurement), along with the percentage of Input CoC Material for the calendar year that this represents. As an Internal Overdraw can occur only under a force majeure situation, it should not be a common occurrence. The percentage information also provides the ASI Secretariat with oversight of criteria 8.10 on Internal Overdraws.
- Criteria 1.7(e) only applies to Entities producing recycled (secondary) ASI Aluminium. It captures total Input Quantity of Eligible Scrap, with a breakdown by Post-Consumer Scrap and Pre-Consumer Scrap that is designated as CoC Material in the calendar year.
    - This data will be used for ASI Impacts Reports to communicate aggregate Pre-Consumer and Post-Consumer flows, alongside flows of primary ASI Aluminium. As Pre-Consumer Scrap must be CoC Material to be eligible, it will enable ASI to monitor the flows of ASI Aluminium back into recycling streams over time.
    - ASI will collaborate with the International Aluminium Institute on methodologies for mass flow modelling.
- Criteria 1.7(f) and (g) apply to Entities allocating or purchasing ASI Credits. The ASI Secretariat will oversee that the aggregate amount issued equals the aggregate amount purchased in a calendar year (ASI Credits have only one issuer and receiver and cannot be re-traded or on-sold).
- Entities should report against all criteria that are applicable. For example, an Entity that included an aluminium smelter, an aluminium re-melter and/or refiner, and a casthouse within its CoC Scope would report to the ASI Secretariat against 1.7(a), (b), and (e), as well as (c), (d), (f) and (g) if applicable. An Entity that included only a bauxite mine would report against 1.7 (a) and (b), plus (c) if applicable.
- For the first Certification Audit, the ASI Accredited Auditor would look at readiness of the Entity's systems for future reporting to the ASI Secretariat at the end of the first calendar year.
    - Consider testing the Material Accounting System with test input and output quantities, where these are not yet formally designated CoC Material (before CoC Certification is granted).
- From the Surveillance Audit onwards, the actual reporting to the ASI Secretariat would be checked by the Auditor. Absent or inadequate reporting of required information to the ASI Secretariat would mean a non-conformance was raised against this criteria.

Getting started

Section 1 is mainly focused on the essential requirements of an effective Management System. Evaluate what resources are required to establish, implement, maintain, review and improve CoC management systems over time. This may include:

- Financial resources
- Human resources in a range of functional areas, including operations, sales, and accounting, and how these will be co-ordinated
- Updates to IT systems
- Training requirements for relevant personnel
- Communications and reporting, including to senior management, customers and suppliers, and to ASI
- Assurance costs

Wherever possible, consider integrating the management requirements of the CoC Standard into existing business management and IT systems, as this will be more efficient and effective.

For example, Entities and/or Facilities are very likely to already have existing systems to track the flow of materials in the aluminium value chain (or other materials), or to fulfil quality management requirements such as for ISO 9001. Often these or similar systems can be extended to cover the requirements of the ASI CoC Standard.

Review:

- ASI membership and the ASI Performance Standard set the foundations for the CoC Standard, so as to support responsible production, sourcing and stewardship of aluminium.
- Entities seeking CoC Certification must ensure an effective Management System is in place to meet each of the applicable requirements of the CoC Standard.
- How each Entity's management system is designed and implemented will be different, depending on the nature of their business.
- The applicable requirements of the CoC Standard can often be integrated into existing management systems relevant to managing sales, sourcing, process flow and/or inventory.

2. Outsourcing Contractors

Outsourcing Contractors are encouraged to become CoC Certified in their own right. However it is recognised there are often challenges in uptake of CoC Certification in long or flexible supply chains, or by smaller businesses. Section 2 provides Entities seeking CoC Certification with the ability to outsource processing, treatment or manufacturing of CoC Material that they own or control to non-CoC Certified Outsourcing Contractors, by including them in their own CoC Certification Scope.

Applicability

Criteria 2.1-2.5 are applicable to all Entities that use Outsourcing Contractors to handle CoC Material that they own or control.

Supply chain activity	Applicability of CoC Standard Criteria				
	2.1	2.2	2.3	2.4	2.5
Bauxite Mining					
Alumina Refining					
Aluminium Smelting					
Aluminium Re-melting/Refining					
Casthouses					
Post-Casthouse					

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

Many businesses, large and small, rely on Outsourcing Contractors. Outsourcing Contractors cover a wide range of businesses, from small workshops or fabricators to large volume manufacturers.

Outsourcing Contractors that handle an Entity's CoC Material are encouraged to become CoC Certified in their own right. However there may be a range of reasons why this is not easily achieved. Thus section 2 of the CoC Standard allows for non-CoC Certified Outsourcing Contractors to be included in the Entity's CoC Certification Scope for audit purposes.

Identifying Outsourcing Contractors

Note that the identity of Outsourcing Contractors included as part of an Entity's Certification Scope may be commercial-in-confidence information. At the Entity's or Contractors request identifying information can be withheld from publicly available information on the Entity's Certification Status published on the ASI website. However the details must be included in the Audit Report to ASI.

For the purposes of the CoC Standard, Outsourcing Contractors include companies that take Custody of CoC Material – which is owned or controlled by the Entity seeking or holding CoC Certification – for the purpose of processing, treatment or manufacturing. An example of an Outsourcing Contractor is a heat treatment business used to modify the physical characteristics of the aluminium metal prior to downstream processing such as extrusion. The Entity retains ownership of the ASI Aluminium but needs to establish controls to ensure the quantities sent to the heat treatment business match what is returned, and that the Outsourcing Contractor adequately identify the Entity's ASI Aluminium from other metal it heat treats. Note that the Outsourcing Contractors section does not

apply to tolling arrangements or similar for Alumina Refining, Aluminium Smelting, Aluminium Re-melting/Refining and/or Casthouses.

In essence, if using this section of the Standard, the CoC Certified Entity takes responsibility for the Outsourcing Contractor/s by including them in their own CoC Certification. The Standard thus requires a risk assessment and oversight by that Entity, because ultimately the contractor's errors could jeopardise their own certification. ASI Auditors would also have the ability to audit the contractor's activities in accordance with identified risk/s. This aims to provide a way for controlled activities to be grouped under an ASI member, ideally as part of a transition to the contractors implementing ASI Standards in their own right.

Outsourcing Contractors **do not** include companies such as warehouses and transportation companies that:

- Maintain segregation on behalf of their clients as an essential part of their service, and
- Do not physically change the material they store and/or ship.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

2.1	Any Outsourcing Contractor without CoC Certification that takes Custody of an Entity's CoC Material for the purposes of further processing, treatment or manufacturing, shall be identified in the Entity's CoC Certification Scope.

Points to consider:

- The reason for including Outsourcing Contractors in an Entity's CoC Certification Scope (2.1) is to be able to continue a chain of custody for CoC Material which the Outsourcing Contractor will be handling.
  - Usually this relates to a desire to pass on a CoC claim to a subsequent customer of the Entity, or to extend an Entity's own material accounting controls to cover the outsourced process/es.
  - If it's a related or allied company that is already within the control of the same ASI Member eg a group entity, there is no need to consider it as an 'Outsourcing Contractor'. Related companies under the same control can already be included within the one CoC Certification Scope.
- The conditions in criteria 2.2 need to be met before the Outsourcing Contractor can be included in the Entity's CoC Certification Scope. Inclusion in the CoC Certification Scope will mean the Outsourcing Contractor is subject to audit – more information is included in the ASI Assurance Manual.
- If the conditions in criteria 2.2 are not met, then the material transferred to an Outsourcing Contractor is no longer considered 'CoC Material' – since there are no appropriate systems of accounting and control to support any subsequent claims.

2.2	Entities which wish to include Outsourcing Contractors within their CoC Certification Scope shall ensure the following: a. The Entity has legal ownership or control of all CoC Material used by these Outsourcing Contractors. b. Any Outsourcing Contractor included in an Entity's Certification Scope shall not outsource any processing, treatment or manufacturing of CoC Material to any other contractor. c. The Entity has assessed the risk of potential non-conformance with the CoC Standard resulting from the engagement of each Outsourcing Contractor, and determined, based on the risk assessment, that the risk is acceptable.

Points to consider:

- Criteria 2.2 contains the conditions under which Outsourcing Contractors may be added to an Entity's CoC Certification Scope.
- 2.2(a) requires that ownership or control of the CoC Materials being outsourced is retained by the Entity. 'Control' of CoC Material could be demonstrated through quality management systems, customer specifications and/or contractual agreements.
    - Control can be demonstrated by establishing documented processes to reconcile the processing, treatment or manufacturing services commissioned match with the end result. This includes reconciliation of the quantity of material on the dispatch dockets with quantities noted on the transport certificates when the material is returned.
    - Note that the Outsourcing Contractors section does not apply to tolling arrangements or similar for Alumina Refining, Aluminium Smelting, Aluminium Re-melting/Refining and/or Casthouses.
- 2.2(b) requires that there is no further outsourcing by the Outsourcing Contractor of processing, treatment or manufacturing of the CoC Material. Further outsourcing would not be controlled under the CoC Standard because the sub-contractor is not covered by the Entity's management system and CoC Certification Scope.
    - If that sub-contractor is to be included in the CoC Certification Scope of the Entity, they would need to meet the criteria of 2.2.
- 2.2(c) requires that the risks of potential non-conformance with the CoC Standard resulting from the engagement of each Outsourcing Contractor have been assessed, and determined acceptable. A finding of acceptable risk should be authorised by a responsible person and recorded.
    - The risk assessment should be based on a reasonable level of familiarity with each Outsourcing Contractor, which may require site visits.
    - The risk assessment should be updated at least every 12-18 months, in preparation for Certification and Surveillance Audits, or more frequently as required.
    - If the risks of one or more Outsourcing Contractors are determined to be not acceptable, the Entity can investigate options for mitigating the risks. These could include capacity building with the Outsourcing Contractor, investigating alternative suppliers, or taking a staged approach to building CoC supply chains.
- The addition of Outsourcing Contractors to an Entity's CoC Certification Scope is addressed in the Assurance Manual. In general terms, all changes require notification to the Auditor and ASI Secretariat. Usually this would form part of the next assessment, but there could be provision for desk-based approval by the Auditor based on the Entity's risk assessment of the Outsourcing Contractor. The ability to do this would be tied into the Risk Maturity ratings for the Entity.

2.3	**The Entity shall ensure that the Outsourcing Contractor provides information on Output Quantity of CoC Material to the Entity at the conclusion of the Entity's Material Accounting Period (or more frequently as required by the Entity).**

Points to consider:

- The Outsourcing Contractor must report back to the Entity the necessary material accounting information for the Entity's systems under section 8 of the CoC Standard.
- This should be at the conclusion of the Entity's own Material Accounting Period, or it can be more frequently if this is useful.
- Make sure these expectations are clearly communicated to the Outsourcing Contractor in advance, as they will need to record and report the requisite information.
- Consider providing the Outsourcing Contractor with a template and/or specific guidance on the nature and format of appropriate records and reporting back to the Entity.

- Note that the Outsourcing Contractor's products do not have to come back to the Entity before delivery to the customer.
- See sections 9 and 10 on CoC Documents – these requirements would apply to Outsourcing Contractors in your CoC Certification Scope for both the return of CoC Material to you and to a subsequent customer. Consider how you as the Entity will control CoC Documents issued by an Outsourcing Contractor to a subsequent customer on behalf of the Entity.

2.4	The Entity shall have systems in place to verify that the Output Quantity of CoC Material is consistent with the Input Quantity of CoC Material provided to the Outsourcing Contractor, and record it in its Material Accounting System.

Points to consider:

- The Entity should know the Input Quantity supplied to the Outsourcing Contractor (since it owns or controls the CoC Material).
- The Output Quantity is reported back to the Entity by the Outsourcing Contractor under 2.3.
- A reliable understanding of the inputs and outputs of the outsourced process will inform whether the Output Quantity is consistent with the Input Quantity, taking into account the expected material losses from processing.
- Knowledge of the Input Percentage (see section 8) would provide more accuracy, however this information may be commercial in confidence to the Outsourcing Contractor.
- The Input and Output Quantities handled by the Outsourcing Contractor need to be recorded in the Entity's own Material Accounting System, since the Outsourcing Contractor falls within the Entity's CoC Certification Scope.
- If there are unreasonable inconsistencies between the inputs and outputs of CoC Material, such as unexplained weight changes or inability to reconcile inputs and outputs or inconsistencies outside of the boundaries of normal production variables, then the Contractor's systems are inadequate. In this case, the Material or products can no longer be considered CoC Material.
    - The risk assessment in 2.2(c) should be updated accordingly and measures to address the situation put in place. This may include removing the Contractor from the CoC Certification Scope, or temporarily removing the Contractor from handling CoC Material until their systems have improved.

2.5	If an error is discovered after CoC Material has been shipped, the Entity and the Outsourcing Contractor shall document the error and the agreed steps taken to correct it, and implement actions to avoid a recurrence.

Points to consider:

- Occasionally, an error may be discovered after CoC Material has been shipped. In these situations, the Entity and the Outsourcing Contractor need to document the error, and the agreed steps taken to correct it.
- Where CoC Material has been shipped to a subsequent customer who has purchased it in good faith, the Entity may need to consider the overall balance of Input to Output material for the Material Accounting Period. For example, other CoC Material not affected by the error may need to be allocated through the Outsourcing Contractor to the customer, who has already received what they expected to be CoC Material.
- The cause of the error should be investigated and appropriate corrective actions identified and implemented. These should aim to address the root cause of the error/s in order to prevent future recurrences. Implementation of these corrective actions should also be reviewed for effectiveness.

- If there are frequent errors by the Outsourcing Contractor, then the Contractor's systems are inadequate. The risk assessment under 2.2(c) should be updated accordingly, and the Outsourcing Contractor removed from handling CoC Material until remediation is undertaken.

Getting Started

Entities seeking CoC Certification to cover Outsourcing Contractors should:

- Identify Outsourcing Contractors who handle the Entity's CoC Material that is to be later transferred with a CoC Document or accounted for under the Entity's systems.
- Make sure all the conditions in 2.2 are met for each Outsourcing Contractor that you want to include in your own CoC Certification Scope.
- Ensure that Outsourcing Contractors understand what information on Output Quantity of CoC Material that they need to report back to you as the Entity, and when.
- Have a reasonable understanding of expected Output Quantities so reported information can be assessed for reliability.
- Decide if the identity of any Outsourcing Contractors are commercial in confidence so that the Auditors can advise ASI accordingly in their audit report.

Businesses with complex supply chains that work with multiple suppliers and sub-contractors may need time to build a CoC approach. Factors to be assessed include the costs of changes to supply chain logistics, such as new approaches to financing and physical supply; relationships and influence with suppliers and contractors; and the potential restriction of supply choices to those who can handle CoC Material. Depending on these factors, businesses may decide to:

- Start with only a part of production as a trial;
- Work with suppliers to build capacity over time;
- For Post-Casthouse Entities, seek to source ASI Credits to help build supply, and work towards a Mass Balance System approach for when volumes and/or systems are ready. This supports upstream efforts for responsible production in the shorter term.

Review:

- Entities may use non-CoC Certified Outsourcing Contractors for CoC Material they own or control.
- The risks of engaging the Outsourcing Contractor must be assessed and determined to be acceptable.
- Building a CoC approach with complex supply chains may take time, so a staged approach may be appropriate.

B. Confirming Eligible Inputs of CoC and Non-CoC Material

3. Primary Aluminium: Criteria for ASI Bauxite, ASI Alumina and ASI Liquid Metal

A Chain of Custody must have a starting point, and in the case of aluminium this is either primary (mined) or recycled (secondary) materials. Section 3 is focused on Primary Aluminium, and requires that ASI Bauxite comes from bauxite mines, and is further processed through alumina refiners and aluminium smelters, that are also certified against the ASI Performance Standard (or equivalent).

Applicability

Criteria 3.1 is applicable to Entities engaged in production of ASI Bauxite.
Criteria 3.2 is applicable to Entities engaged in production of ASI Alumina.
Criteria 3.3 is applicable to Entities engaged in production of ASI Liquid Metal from aluminium smelters.

Supply chain activity	Applicability of CoC Standard Criteria		
	3.1	3.2	3.3
Bauxite Mining			
Alumina Refining			
Aluminium Smelting			
Aluminium Re-melting/Refining			
Casthouses			
Post-Casthouse			

Code:
Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.
Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.
For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

The ASI Performance Standard aims to promote responsible production of aluminium, including bauxite mining, alumina refining and aluminium smelting at the start of the primary production supply chain. The Performance Standard covers a range of key issues for these supply chain activities including greenhouse gas emissions, management of bauxite residue, dross and spent pot lining (SPL), biodiversity management, and indigenous peoples' rights. In addition to 'material stewardship', these issues were considered by ASI to be the 'hotspot issues' in the aluminium value chain when setting the ASI Performance Standard. The CoC Standard is thus designed to recognise and reward good practice in these areas.

Section 3 of the CoC Standard supports the uptake of the ASI Performance Standard by specifying that CoC Material (in the form of ASI Bauxite, ASI Alumina and/or ASI Liquid Metal) comes from Facilities that are:

- Certified against the ASI Performance Standard (or a comparable Responsible Mining Standard, where this has been recognised by ASI), and
- Within an Entity's CoC Certification Scope, or
- Those in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity, so as to accommodate joint venture situations.

Joint venture arrangements involving multiple shareholders are common in the upstream aluminium industry, due to the significant capital investment required needed to establish new facilities. These facilities are often

operated on a tolling basis, whereby the shareholders are entitled to a percentage of the production in accordance with their financial investment.

Note that section 3 focuses on sourcing of CoC Material, to support a chain of custody for this material as it is transferred to successive Entities. However unlike CoC Material, Non-CoC Material does not necessarily come with information about provenance, so is subject to due diligence requirements in section 7.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

3.1	An Entity engaged in Bauxite Mining shall have systems in place to ensure that ASI Bauxite is produced only from bauxite mines that are: a. Within the Entity's CoC Certification Scope and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Certified against the ASI Performance Standard, or certified against a Responsible Mining Standard that has been formally recognised by ASI as comparable to the ASI Performance Standard.

Points to consider:

- This criteria is applicable to Entities engaged in bauxite production within their CoC Certification Scope.
- For bauxite to be designed 'ASI Bauxite', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest.
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity according to their investment.
- In addition, for bauxite to be designated as 'ASI Bauxite', it needs to come from mines that are certified against the ASI Performance Standard or equivalent. This supports claims of 'responsible production'.
    - 3.1(b) makes provision for the future recognition of other 'Responsible Mining Standards'.
    - As at 2016, ASI has not yet recognised any other mining standards as comparable to the ASI Performance Standard. However this provides scope for ASI to conduct a formal process to do so in future, where there is applicability to Bauxite Mining and interest from ASI Members.
- In most cases, the ownership and physical location of mines means that the source of a particular bauxite supply is known.
    - Where a bauxite mine sells or transfers all of its production without mixing it with Non-CoC Material, CoC Certification should be very straightforward. In these cases, a CoC Certified mine can claim 100% of its production as ASI Bauxite.
    - However for some mining operations, there may be points where production from multiple mines is mixed – for example through combining production from different mines for transportation, or processing of ore from other mines at the Entity's on-site processing facilities. In these situations, the amount of ASI Bauxite in a shipment may be less than the total shipment.
    - In both cases, CoC Documents (sections 9 and 10) will record the relevant amount of CoC Material being transferred.

3.2	An Entity engaged in Alumina Refining shall have systems in place to ensure that ASI Alumina is produced only from alumina refiners that are: a. Within the Entity's CoC Certification Scope, and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Certified against the ASI Performance Standard;

Points to consider:

- This criteria is applicable to Entities engaged in Alumina Refining within their CoC Certification Scope.
- For alumina to be designed 'ASI Alumina', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest.
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity according to their investment.
- In addition, for alumina to be designated as 'ASI Alumina', it needs to come from alumina refiners that are certified against the ASI Performance Standard. This supports claims of 'responsible production'.

3.3	An Entity engaged in Aluminium Smelting shall have systems in place to ensure that ASI Liquid Metal is produced only from aluminium smelters that are: a. Within the Entity's CoC Certification Scope, and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Certified against the ASI Performance Standard.

Points to consider:

- This criteria is applicable to Entities engaged in Aluminium Smelting within their CoC Certification Scope and focuses on the direct output of the smelting process in the form of Liquid Metal (molten aluminium) that is taken from the potroom to a Casthouse.
- For aluminium to be designed 'ASI Liquid Metal', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest.
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity as a joint venture partner.
- In addition, for aluminium to be designated as 'ASI Liquid Metal', it needs to come from aluminium smelters that are certified against the ASI Performance Standard. This supports claims of 'responsible production'.

Getting Started

Entities seeking CoC Certification should:

- Use the ASI website to confirm details of the relevant ASI Certifications covering CoC Material inputs.
- Include the relevant Facilities which seek to produce CoC Material in your CoC Certification Scope.

Review:

- Bauxite mines, alumina refiners and aluminium smelters must be Certified against both the ASI Performance Standard and CoC Standard in order to produce CoC Material.
- ASI may also recognise other Responsible Mining Standards in future, where they are comparable with the ASI Performance Standard. Information on this will be maintained on the ASI website.

4. Recycled Aluminium: Criteria for Eligible Scrap and ASI Liquid Metal

Recycled Aluminium is the second potential starting point for Chain of Custody for ASI Aluminium. The CoC Standard anticipates that the first Entity in the Chain of Custody of recycled CoC Material will be an aluminium re-melter and/or refiner (aluminium refining includes recovery and refining of aluminium from Dross and Dross residues such as slag). Section 4 requires that 'know your customer' principles apply to suppliers of Recyclable Scrap Material (and the due diligence requirements of section 7 also apply). This section sets the ASI CoC Standard's requirements for Entities producing recycled scrap material and recycled aluminium.

Applicability

Criteria 4.1-4.3 are applicable to Entities operating Aluminium Re-melters/Refiners that source Recyclable Scrap Material.

Supply chain activity	Applicability of CoC Standard Criteria		
	4.1	4.2	4.3
Bauxite Mining			
Alumina Refining			
Aluminium Smelting			
Aluminium Re-melting/Refining			
Casthouses			
Post-Casthouse			

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

Material stewardship is another critical part of the ASI Performance Standard which aims to enhance recycling and reuse of aluminium. Recycled (secondary) aluminium is generated from both pre-consumer and post-consumer scrap and, for some casthouse products, may also have primary aluminium added in the form of 'cold metal' to achieve desired alloy specifications.

Recycling provides a significant contribution to the global supply of aluminium. Although recycling forms a key part of 'circular economy' concepts, from a chain of custody point of view, the point of origin for Recyclable Scrap Material is considered to be the point at which they are recycled into a usable form.

The ASI CoC Standard identifies aluminium re-melters and/or refiners as the most relevant type of entity to seek CoC Certification, thus enabling them to start a chain of custody for what will become ASI Aluminium at the Casthouse. These entities are also best placed to exert due diligence towards their suppliers to identify and manage any supply chain risks associated with Recyclable Scrap Material, an approach that is widely used in audit and certification programs in the metals sector. Aluminium re-melters and/or refiners may be dedicated facilities for Recycled Aluminium production, or may be part of a broader set of processes for Primary Production where they re-melt internally generated (or other) scrap.

There are a wide range of direct and indirect suppliers of Recyclable Scrap Material to an aluminium refiner and/or re-melter. These could include:

- Municipal collection and sorting systems
- Informal collection and sorting systems, particularly in developing countries
- Scrap metal merchants, traders and scrapyards
- Dismantlers and shredders
- Primary production facilities (e.g. refining dross, salt slag)
- Salt slag and dross processors
- Internally generated scrap, including from rolling and extrusion mills
- Manufacturing facilities which generate pre-consumer scrap during production processes
- More specifically, CoC Certified Entities which provide CoC Material in the form of pre-consumer scrap

Depending on the type and place of business, there may be identifiable supply chain risks among suppliers of Recyclable Scrap Material. Due diligence towards all suppliers of Recyclable Scrap Materials is required in section 7, which may ultimately exclude some suppliers from being providers of Eligible Scrap due to significant supply chain risks.

Under the Mass Balance System in the ASI CoC Standard, various inputs can be mixed and it is not required to segregate Eligible Scrap from other Recyclable Scrap Material. However the Entity's Material Accounting System in section 8 must properly account for the various types of inputs and outputs.

An important role of Entities producing recycled aluminium is to determine what can be accounted for as 'Eligible Scrap' among all the Recyclable Scrap Material that may be sourced. Eligible Scrap is part of the Input Percentage calculations of section 8, which is then used to determine how much ASI Liquid Metal is produced for the Casthouse. Criteria 4.2 defines Eligible Scrap as:

- Post-Consumer Scrap that is assessed by the Entity to be post-consumer in origin and subject to supplier due diligence and/or
- Pre-Consumer Scrap that is designated as CoC Material supplied directly from a CoC Certified Entity: either another Entity or internally generated in your own operations.

These overlapping concepts are illustrated in the figure below:

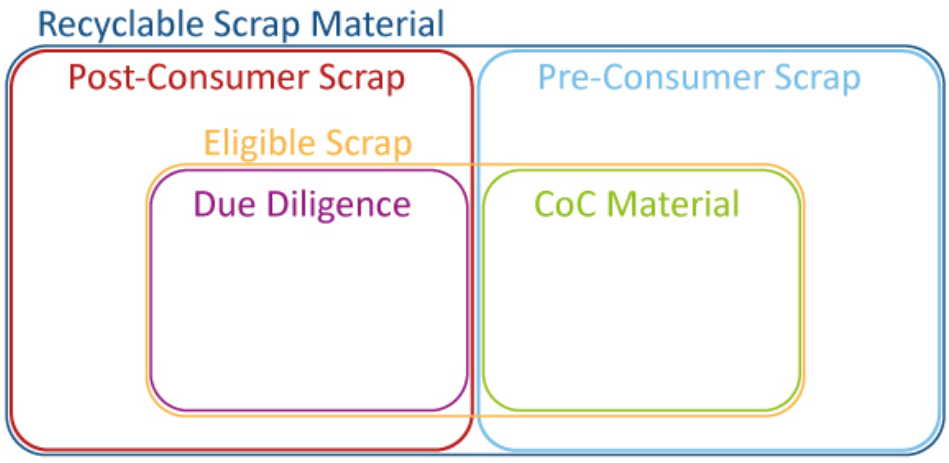


Figure 9 – Relationship between Recyclable Scrap Material and types of Eligible Scrap

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

4.1	An Entity engaged in Aluminium Re-Melting/Refining to produce Recycled Aluminium shall have systems in place to ensure that ASI Liquid Metal is produced only from Facilities that are: a. Within the Entity's CoC Certification Scope, and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Certified against the ASI Performance Standard.

Points to consider:

- This criteria is applicable to Entities engaged in Aluminium Re-Melting/Refining within their CoC Certification Scope and focuses on the direct output of the re-melting and/or refining process in the form of Liquid Metal (molten aluminium) that is taken to a Casthouse.
- For aluminium to be designated 'ASI Liquid Metal', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest (4.1a).
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity according to their investment.
- In addition, for production to be designated as 'ASI Liquid Metal', it needs to come from aluminium re-melters and/or refiners that are certified against the ASI Performance Standard. This supports claims of 'responsible production' (4.1b).

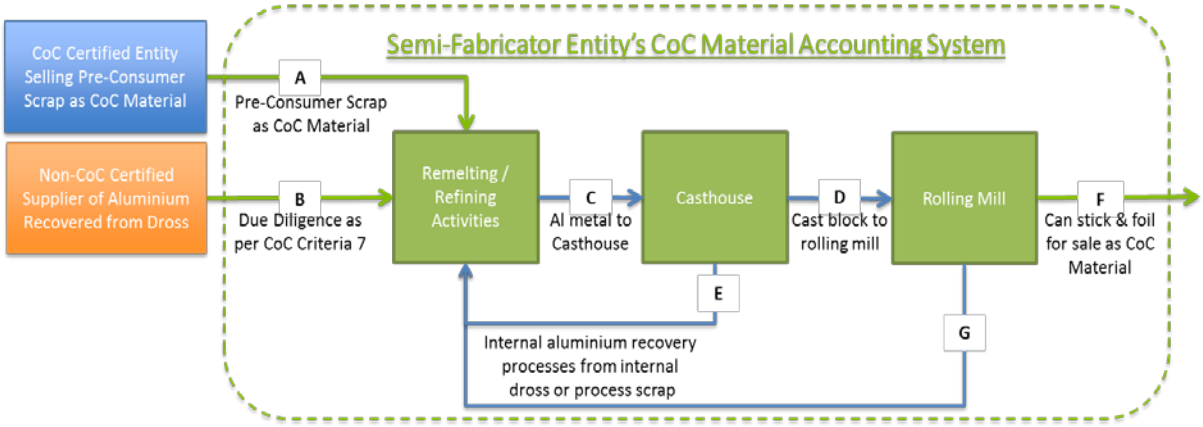
4.2	An Entity engaged in Aluminium Re-Melting/Refining shall account for Eligible Scrap in their Material Accounting System as only: a. Pre-Consumer Scrap that is designated as CoC Material supplied directly from a CoC Certified Entity or Aluminium recovered from Dross and treated Dross residues that is subject to supplier due diligence as per section 7; and/or b. Post-Consumer Scrap that is subject to supplier due diligence as per section 7 and is assessed by the Entity to be post-consumer in origin.

Points to consider:

- The Entity's Material Accounting System in section 8 needs to accurately record and account for volumes of Post-Consumer Scrap and Pre-Consumer Scrap that is designated as CoC Material (4.2).
- Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
- Under 4.2(a), Pre-Consumer Scrap can only be CoC Material if:
    - The scrap is accompanied by a CoC Document from a CoC Certified Entity (for example, designated CoC scrap sheet from a CoC Certified automotive company), or
    - The scrap is internally generated from CoC Material and accounted for in the Entity's Material Accounting System, or
    - It is Aluminium from Dross and treated Dross residues. This material is included as Eligible Scrap in support of the ASI Performance Standard, which specifically seeks to maximise recycling of these materials using additional and often more complex processing to recover Aluminium. These inputs must be subject to supplier due diligence as per section 7 of the CoC Standard. Entities should not accept Aluminium from Dross and treated Dross residues as Eligible Scrap under the CoC Standard from suppliers that they determine to exceed a level of

risk based on the criteria in section 7. Note that Dross processors could also be CoC certified in their own right.

- Note that 4.2(a) does not require that the Entity's Material Accounting System be used to record Aluminium from internally processed dross or dross residues, although the Entity may wish to do so. An example is illustrated in Figure 10 below, which shows a Semi-Fabricator with Remelting/Refining processes (e.g. dross presses, rotary furnaces, induction furnaces, etc.) as well as a Casthouse to produce block ingot that is rolled into can stock and aluminium foil for sale. As indicated in Figure 10, only streams A, B and F would need to be included in the Entity's Material Accounting System to conform to criterion 4.2a of the ASI Chain of Custody Standard given a Certification Scope around the three parts of the operations. However, the Entity is free to also account for the other internal streams (such as C, D, E and G) for metal balance, inventory control and waste management purposes.



Stream ID	Description	Included in Entity's Material Accounting System?
A (Input Stream)	Pre-Consumer Scrap designated as CoC Material from a third party CoC Certified Entity to be processed by the Semi-Fabricator's remelting/refining processes (e.g. dross presses, rotary furnaces, induction furnaces, etc.).	*Yes required by Criterion 4.2a and other relevant parts of criterion 8*
B (Input Stream)	Recovered Aluminium sourced from a non-CoC Entity (e.g. a supplier or trader) eligible as CoC Material subject to the Entity conducting Due Diligence on the supplier in accordance with as per ASI CoC Standard criterion 7.	*Yes required by Criterion 4.2a and other relevant parts of criterion 8*
C	Internal aluminium metal from the Semi-fabricator's remelting/refining process to its Casthouse	Not required by Criterion 4.2a
D	Metal from the Casthouse to the semi-fabricators rolling mill	Not required by Criterion 4.2a
E	Internal processing Scrap (e.g. off spec aluminium) and/or dross (e.g from reverberatory/holding furnaces) for internal processing to recover aluminium in the Entity's remelting/refining facilities	Not required by Criterion 4.2a
F (Output Stream)	Rolled can stock and foil to be sold to customers as CoC Material	*Yes required by relevant parts of criterion 8*

Stream ID	Description	Included in Entity's Material Accounting System?
G	Internal Scrap from the rolling mill for internal processing to recover aluminium in the Entity's remelting/refining facilities.	Not required by Criterion 4.2a

Figure 10 – Example of metal flows to be recorded in the Entity's Material Accounting System for Criterion 4.2a

- Under 4.2(b), to be considered Eligible Scrap, Post-Consumer Scrap is subject to supplier due diligence as per section 7 of the CoC Standard. Entities should not accept post-consumer scrap as Eligible Scrap under the CoC Standard from suppliers that they determine to exceed a level of risk based on the criteria in section 7.
- Entities often receive scrap to their facilities in a mixed form, where Pre-Consumer Scrap and Post-Consumer Scrap are not segregated and the relative mix cannot be determined with precision. Shipments of Post-Consumer Scrap and Pre-Consumer Scrap of unidentified origin may arrive mixed from scrap yards, scrap metal merchants or other suppliers. To assist with determination of the relative amounts of Pre-Consumer Scrap and Post-Consumer Scrap in shipments, one or more of the following should be implemented:
    - Request suppliers to provide an approximate percentage breakdown of Pre-Consumer and Post-Consumer Scrap in shipments, based on their knowledge of the inputs. For example, the Institute for Scrap Recycling Industries (ISRI) publish annually a Scrap Specifications Circular which provides internationally accepted specifications for the nature of non-ferrous scrap in commercial transactions. These specifications could be used to infer whether the material can be considered Pre- or Post-Consumer Scrap under the ASI CoC Standard.
    - Conduct a visual inspection of incoming shipments to generate a determination of the approximate percentage breakdown of Pre-Consumer and Post-Consumer scrap.
    - The minimum granularity for percentage estimates by visual inspection and/or supplier information should be at 25% intervals: in other words 0%, 25%, 50%, 75% or 100% post-consumer or pre-consumer scrap. If more confidence in the estimate is possible, for example +/-5% or +/-10% instead of +/-25%, this should be implemented.
    - Consider how this process can be integrated into existing quality control processes.

4.3	An Entity engaged in Aluminium Re-Melting/Refining to produce Recycled Aluminium shall have systems in place to record: a. The identity, principals and place/s of operation of all direct suppliers of Recyclable Scrap Material. b. All financial transactions with direct suppliers of Recyclable Scrap Material, ensuring that cash payments are within the lower of the relevant defined financial threshold under Applicable Law or US$10,000 (or equivalent), where the transaction is carried out in a single operation or in several operations that appear to be linked.

Points to consider:

- In addition to the general due diligence requirements in section 7, section 4.3 requires basic 'know your customer' principles to be applied to suppliers of recyclable aluminium.
- Entities are to keep records of the identity, principals and places of operation of all suppliers of Recyclable Scrap Material (4.3a), and of the related financial transactions (4.2b).
- Scrap metal markets are commonly cash based, which can present risks of money laundering. Money laundering is the process by which the financial proceeds of crime are disguised to conceal their illegal origin.
- To combat illegitimate sources of scrap metal and money laundering practices that are present in some parts of the metals sector, the ASI CoC Standard sets limits on cash transactions.
- Most developed countries have strict regulations covering cash transactions, which may have associated reporting requirements for some types of entities. These usually set a financial threshold or limit for cash-based transactions, which is either a hard limit and/or beyond which transactions must be reported to the relevant designated authority.
- Entities should be aware of the relevant thresholds in all jurisdictions where they operate. The ASI CoC Standard sets the cash limit at no greater than US$10,000 (or the approximate equivalent in local currency)[9] or lower where Applicable Law sets a limit lower than US$10,000. The Entity may of course set its own cash limit even lower than these amounts.
- To facilitate awareness of these requirements, Entities should consider developing a policy on cash payments and communicate it to suppliers of Recyclable Scrap Material.

'Know Your Customer'

Know Your Customer (KYC) principles were established to combat money laundering and finance of terrorism. Collection and maintenance of supplier data is an ongoing process. If some information is missing, Auditors will take into account the extent and nature of any missing information, the reasons why it is missing, and whether it demonstrates weaknesses in the Entity's management system.

Getting Started

Entities handling Recyclable Scrap Material may have a few large suppliers or potentially hundreds of smaller suppliers, depending on the types and quantities of material they buy and what they are able to process in their own facilities. Entities seeking CoC Certification should:

- Review their 'know your customer' systems for suppliers of Recyclable Scrap Material.
- Adopt and communicate a policy to avoid cash payments greater than the applicable limit.
- Use the ASI website to confirm details of the relevant ASI Certifications covering inputs of CoC Material in the form of pre-consumer scrap.

Review:

- Aluminium re-melters and/or refiners must be Certified against both the ASI Performance Standard and ASI CoC Standard in order to produce CoC Material.
- ASI Liquid Metal is produced from Eligible Scrap, which consists of Post-Consumer Scrap and Pre-Consumer Scrap that comes from a CoC Certified Entity.
- Basic 'know your customer' principles need to be applied to all suppliers of Recyclable Scrap Material.

[9] $10,000 or equivalent is a common threshold for jurisdictions implementing the recommendations of the Financial Action Task Force on money laundering (FATF).

5. Casthouses: Criteria for ASI Aluminium

For both Primary and Recycled Aluminium, Casthouses are the 'choke point' between upstream and downstream supply chains. They are also the point at which aluminium is formed into usable (or reusable) metal for subsequent material conversion and/or manufacturing. Section 5 deals with the certification requirements for Casthouses and both the Liquid Metal and Cold Metal inputs and outputs that are part of the casting process. It also specifies that Casthouses need to ensure their systems can provide traceability for stamped or printed ASI Aluminium products and ASI Credits.

Applicability

Criteria 5.1-5.2 are applicable to Entities operating Casthouses and producing ASI Aluminium.

Supply chain activity	Applicability of CoC Standard Criteria	
	5.1	5.2
Bauxite Mining		
Alumina Refining		
Aluminium Smelting		
Aluminium Re-melting/Refining		
Casthouses		
Post-Casthouse		

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

Casthouses are the 'choke point' between upstream and downstream supply chains and are the point at which aluminium is formed into usable (or reusable) metal. In nearly all cases, this metal is stamped or identified in some way – either on or with the product – to enable traceability, usually for reasons of quality control. For Casthouses within an Entity's CoC Certification Scope, this is the point where products are designated as 'ASI Aluminium' before entering the Post-Casthouse part of aluminium supply chains.

Casthouses may be located on the site of an aluminium smelter (primary), or an aluminium re-melter or refiner (recycled). Alternatively, they may be a standalone facility shared by a number of suppliers of Liquid Metal, or in some cases, operating as part of a downstream company that receives Liquid Metal directly, for example for casting directly into components.

Casthouses produce a wide range of products, in a range of weights, sizes and alloy specifications catering to in-house, customer or market requirements. These may be used for further in-house semi-fabrication processes, delivered direct to external customers (including other Casthouses in the form of Cold Metal), or indirectly delivered to customers via third-party warehouses, traders or exchanges.

For nearly all Casthouses, Liquid Metal and Cold Metal inputs are part of the casting process. Note that Liquid Metal and Cold Metal may be either from Primary or Recycled production, and it is common for there to be a mix of both. Cold Metal for use in the casting process usually comes from another Casthouse, but may also be produced by the same Casthouse, for example in the form of re-melt ingots or scrap Casthouse Products (such

as off-specification production). ASI Cold Metal will be ASI Aluminium that has come from a CoC Certified Casthouse (either the Entity's own or from another CoC Certified Entity with a CoC Document).

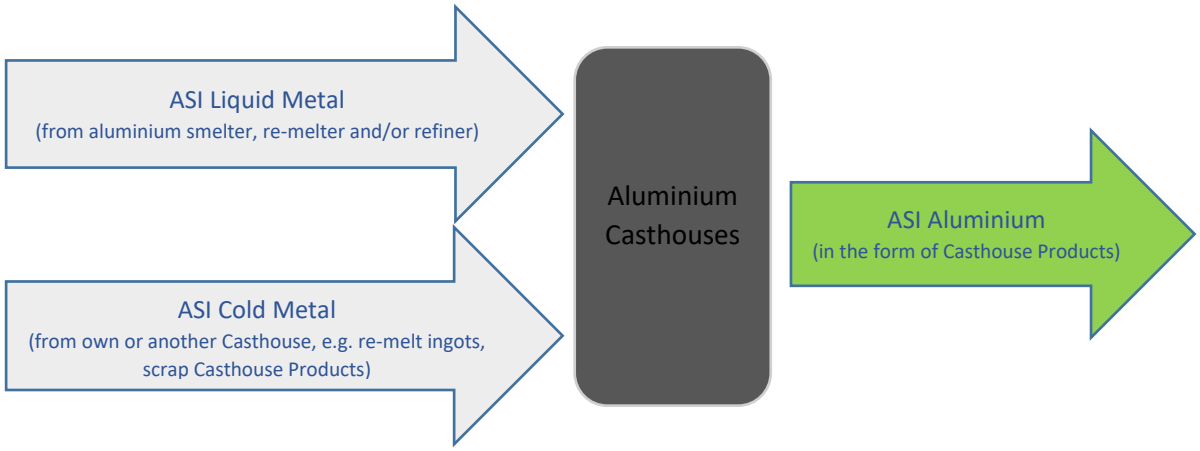


Figure 11 – Casthouse inputs and outputs

Casthouses play a critical role in the ASI CoC program as the Entity that first designates 'ASI Aluminium'. Casthouses have systems for identification of products, such as stamped or printed charge numbers and related records, for quality and customer reference purposes. These systems can usually easily be extended to accommodate relevant CoC information maintained by the Entity.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

5.1	An Entity engaged in producing Casthouse Products from Primary Aluminium and/or Recycled Aluminium shall have systems in place to ensure that ASI Aluminium is produced only from Casthouses that are: a. Within the Entity's CoC Certification Scope, and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Certified against the ASI Performance Standard.

Points to consider:

- This criteria is applicable to Casthouses and focuses on the direct output of the casting process in the form of ASI Aluminium.
- For aluminium to be designated 'ASI Aluminium', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest.
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity as a joint venture partner.
- In addition, for aluminium to be designated as 'ASI Aluminium', it needs to come from Casthouses that are certified against the ASI Performance Standard. This supports claims of 'responsible production'.

5.2	**For traceability purposes, the Material Accounting System of an Entity engaged in producing Casthouse Products shall have systems in place to ensure that unique identification numbers, either physically stamped and/or printed on or with ASI Aluminium, can be linked to the Input Quantity of CoC Material for that Material Accounting Period.**

Points to consider:

- Criteria 5.2 specifies that Casthouses need to have systems in place such that unique identification numbers physically stamped and/or printed on ASI Aluminium products or their packaging can be linked to the input CoC Material for that Material Accounting Production.
- This will mean that where Casthouse Products are identifiable by virtue of stamped and/or printed unique identification numbers, this can be tied directly to information about CoC Material inputs for that period.
    - This is a valuable body of information and data for traceability purposes at the Entity level (being able to reconcile the flow of incoming and outgoing CoC Material in an Entity) and also for oversight of the ASI CoC System as a whole and over time.
- Existing systems for identification of Casthouse products, such as stamped or printed charge numbers or batch numbers, can usually be easily used to link to relevant CoC information maintained by the Entity.

Getting Started

Entities seeking CoC Certification should:

- Use the ASI website to confirm details of the relevant ASI Certifications covering CoC Material inputs.
- Work out how current systems for process flow, inventory and/or sales management can be extended to link with information about CoC Material inputs and/or the Entity's material accounting system for the ASI CoC Standard.

Review:

- Casthouses must be Certified against both the ASI Performance Standard and ASI CoC Standard in order to produce ASI Aluminium.
- The unique identification numbers on or with Casthouse Products need to be able to be linked back to the CoC Material inputs for the Material Accounting Period when they were produced.

6. Post-Casthouse: Criteria for ASI Aluminium

Casthouse Products are destined for a wide range of semi-fabrication pathways and subsequent material conversion, downstream manufacturing and use. Supply chains from the Casthouse onwards ('Post-Casthouse') are often highly diverse and/or fragmented. Section 6 applies to Post-Casthouse Entities that source physical ASI Aluminium direct from Casthouses or via another downstream entity, and use the CoC Standard to make claims about their own production of ASI Aluminium.

Applicability

Criteria 6.1 is applicable to Entities that source physical ASI Aluminium directly from a Casthouse or via another Post-Casthouse Entity and use the CoC Standard to make claims about their own production of ASI Aluminium.

Supply chain activity	Applicability of CoC Standard Criteria 6.1
Bauxite Mining	
Alumina Refining	
Aluminium Smelting	
Aluminium Re-melting/Refining	
Casthouses	
Post-Casthouse	

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

Aluminium, once in the form of Casthouse Products, can be used in a very wide range of applications. The main downstream use sectors include:

- Transport
- Construction
- Foil and packaging
- Electrical engineering
- Machinery and equipment
- Consumer goods
- Other

In the ASI CoC Standard, Entities positioned after the Casthouse are termed 'Post-Casthouse Entities', and they use aluminium metal once it has been cast into a usable (or re-usable) form. Post-Casthouse supply chains can be highly diverse and/or fragmented. There are probably hundreds of thousands to millions of businesses worldwide that use aluminium in component or product manufacturing in these sectors. These would include every size of business from micro to multinationals, located in nearly every country in the world. Some downstream supply chains are short, simple and/or high volume and these will be simpler to mobilise for a chain of custody approach. Other supply chains rely on multiple and/or regularly changing suppliers, themselves embedded in multiple tiers of suppliers for complex components and products.

The ASI Performance Standard contains requirements for 'Material Stewardship' which are particularly targeted to companies in downstream use sectors. Section 6 of the CoC Standard supports the uptake of the ASI Performance Standard by specifying that CoC Material (in the form of ASI Aluminium) comes from Facilities that are:

- Certified against the ASI Performance Standard within 2 years of joining ASI or the launch of the ASI Certification program (whichever is later), and
- Within an Entity's CoC Certification Scope, or
- Those in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity, so as to accommodate joint venture situations.

Post-Casthouse Entities and/or Facilities are given a more flexible timeframe for achieving ASI Certification against the applicable parts of the Performance Standard, than Entities up to and including the Casthouse which must be Certified against the Performance Standard before or at the same time as their CoC Certification. This is because the majority of Post-Casthouse Entities in the longer term are likely to only have the 'Material Stewardship' section of the Performance Standard applying to them. As these criteria in the Performance Standard support longer-term impacts of ASI and – unlike many of the upstream sustainability issues – are not a critical pre-requisite for the credibility of CoC Material, this longer timeframe recognises that downstream companies may be initially drawn to ASI for the opportunities to source ASI Aluminium. (Note that additional parts of the Performance Standard beyond the Material Stewardship criteria may apply to Post-Casthouse Entities depending on the supply chain activities included in their Certification Scope).

Thus the ASI CoC Standard is positioned to be a driver for uptake and implementation of the Performance Standard by downstream users of aluminium, and in the shorter term, stimulate early demand for ASI Aluminium.

Note that sourcing ASI Aluminium as a physical metal does require an unbroken chain of CoC Certified Entities to supply it, in accordance with the requirements of the CoC Standard. This may not be easily achievable in some types of supply chains, or at the very least, will take time to build through multiple tiers of supply. For this reason, the ASI CoC Standard also offers an alternative to sourcing physical aluminium for Post-Casthouse Entities in the form of the Market Credits System (see section 11).

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

6.1	A Post-Casthouse Entity that sources ASI Aluminium shall have systems in place to ensure that it is itself producing ASI Aluminium only from an Entity and/or Facility/ies: a. Within the Entity's CoC Certification Scope, and/or in which the Entity holds a legal interest and are within the CoC Certification Scope of another CoC Certified Entity; b. Will be certified against the ASI Performance Standard within the launch of the ASI Certification system or 2 years of joining ASI, whichever is later. c. Sourcing ASI Aluminium directly from another ASI CoC Certified Entity, or via a metals trader or warehouse where the ASI CoC Certified Entity can supply or verify the associated CoC Document containing Supplementary Information sufficient to identify the corresponding shipment.

Points to consider:

- This criteria is applicable to Post-Casthouse Entities and focuses on any output or associated claims relating to physical ASI Aluminium.
- For aluminium output to be designed 'ASI Aluminium', it needs to come from CoC Certified Facilities that are within an Entity's own CoC Certification Scope and/or from another Entity's CoC Certification in which they hold a legal interest.
    - Examples of the latter include joint venture arrangements in which a portion of production is owned by the Entity as a joint venture partner.
- Post-Casthouse Entities that produce 'ASI Aluminium' must also be committed to achieving certification against the ASI Performance Standard. A longer timeframe (ie it does not need to be achieved before CoC Certification) is given for this certification to be achieved than for Entities up to and including the Casthouse, given that the initial focus for Post-Casthouse Entities may be on responsible sourcing.
- The Entity's input of ASI Aluminium must come either:
    - directly from another CoC Certified Entity. Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
    - or, it can be indirectly sourced via a metals trader or warehouse, as long as the ASI CoC Certified Entity which produced the ASI Aluminium can supply or verify a CoC Document for that material. The CoC Document should contain Supplementary Information to enable identification of the corresponding shipment, for example, Casthouse Product identification or reference numbers.
- Note that the Market Credits System (section 11) cannot be used to source or produce 'ASI Aluminium' as a physical metal.

Getting Started

Post-Casthouse Entities seeking CoC Certification should:

- Consider their short and long term approach to responsible sourcing of aluminium.
- Use the ASI website to confirm details of the relevant ASI Certifications covering ASI Aluminium inputs.
- Work towards achieving certification against applicable parts of the ASI Performance Standard to fulfil their commitments as an ASI Member.

Review:

- Post-Casthouse Entities must be Certified against the CoC Standard in order to produce ASI Aluminium.
- They must also work towards Certification against the ASI Performance Standard within their deadline.
- ASI Aluminium outputs can only be produced from physical ASI Aluminium inputs received directly from another CoC Certified Entity (or via a trader or warehouse with a verifiable CoC Document from that Entity).
- ASI Aluminium cannot be produced or claimed from ASI Market Credits (see section 11).

7. Due Diligence for Non-CoC Material and Recyclable Scrap Material

Section 7 requires Entities to conduct due diligence of suppliers of Non-CoC Material and Recyclable Scrap Material for potential environmental, social or governance risks, and take reasonable action to prevent or mitigate risks. This aligns with ASI's mission to promote responsible sourcing. It does not preclude Entities sourcing from non-ASI suppliers.

Applicability

Criteria 7.1-7.3 are applicable to all Entities that source Non-CoC Material and/or Recyclable Scrap Material.

Supply chain activity	Applicability of CoC Standard Criteria		
	7.1	7.2	7.3
Bauxite Mining			
Alumina Refining			
Aluminium Smelting			
Aluminium Re-melting/Refining			
Casthouses			
Post-Casthouse			

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

Due diligence in minerals and metals supply chains is becoming an important expectation from stakeholders, and increasingly subject to regulation. Legislation on 'conflict minerals' in both the United States and the European Union, while initially covering tin, tungsten, tantalum and gold, is expected to cover a wider range of metals in future years. The OECD has developed *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* and the 3rd edition (April 2016) recommends its application to all mineral resources, not just 'conflict minerals'.[10]

> ***Sourcing Non-CoC Material***
>
> *Note the ASI CoC Standard **does not** require ASI Members or Entities to source their materials only from other ASI Members, or at all. The individual sourcing and supplier decisions of each business are made according to their own judgments and in their sole discretion. See the ASI Anti-Trust Compliance Policy on the ASI website.*
>
> *aluminium-stewardship.org/about-asi/policies/*

Due diligence is understood as an 'ongoing, proactive and reactive process' through which companies can identify and assess risks, and design and implement a strategy to respond to identified risks. For ASI, the risks that are typically addressed through supply chain due diligence have also been addressed in the ASI Performance Standard through the following criteria:

[10] http://www.oecd.org/corporate/mne/mining.htm. In addition, the China Chamber of Commerce of Metals, Minerals and Chemicals Importers & Exporters (CCCMC) has cooperated closely with the OECD in preparing the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains, which were designed to cover all minerals. The Guidelines are available in English and Chinese at: https://mneguidelines.oecd.org/chinese-due-diligence-guidelines-for-responsible-mineral-supply-chains.htm

- Anti-corruption
- Responsible Sourcing
- Human Rights Due Diligence
- Conflict Affected and High Risk Areas

Some parts of the supply chain may have specific or higher risks of adverse environmental, social and human rights risks due to their location, activities, or working environment. Understanding these risks and impacts will help inform decisions organisations make regarding responsible sourcing of aluminium.

Section 7 of the CoC Standard requires all Entities seeking CoC Certification to establish appropriate due diligence systems for suppliers of Non-CoC Material and Recyclable Scrap Material. These systems include policies, risk assessment and mitigation, and complaints mechanisms directed towards aluminium supply chain risks.[11]

While the focus of the CoC Standard is primarily on CoC Material, which evidences and supports implementation of the ASI Performance Standard, the due diligence criteria in section 7 help to enhance the credibility of broader aluminium supply chains for all CoC Certified Entities. Note that Non-CoC Certified suppliers do not become ASI certified or otherwise recognised by ASI after an Entity's due diligence process.

For more information on establishing due diligence systems, see the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*. While this Guidance (and two sector specific supplements) were originally drafted specifically for the context of 'conflict minerals' in and around the Democratic Republic of Congo, they are increasingly a general reference point for mining, minerals and metals supply chains. In a nutshell, the *Due Diligence Guidance* advocates a risk-based due diligence approach. For downstream companies that already implement due diligence for 'conflict minerals', consider integrating the requirements of the ASI CoC Standard into these existing approaches.

Small Business and Due Diligence

The UN Guiding Principles on Business and Human Rights - Principle 14 provides insight about how business can respect human rights. All businesses regardless of their size have a responsibility to respect human rights. The approach to this responsibility may vary according to their size, sector, operational context and structure, as well as the risks of creating adverse human rights impacts. Smaller businesses often have more informal processes and management structures than larger companies, so their policies and processes for respecting human rights can usually be more informal.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

7.1	The Entity shall adopt and communicate to suppliers of Non-CoC Material and Recyclable Scrap Material a responsible sourcing policy covering Aluminium, which as a minimum takes account of the following criteria in the ASI Performance Standard: a. 1.2 (Anti-corruption)

[11] Note that all ASI members are bound by the ASI Anti Trust Compliance Policy, available at https://aluminium-stewardship.org/about-asi/legal-finance-policies/

b. 2.4 (Responsible Sourcing)
c. 9.1 (Human Rights Due Diligence)
d. 9.9 (Conflict Affected and High Risk Areas)

Points to consider:

- This criteria applies to any Entity that is sourcing Non-CoC Material and/or Recyclable Scrap Material.
  - Bauxite mines would not normally be included as they produce, not source, ASI Bauxite and have applicable requirements for these risks under the ASI Performance Standard.
- The Entity needs to develop or extend a responsible sourcing policy so that it addresses or includes Aluminium within its scope. It will be useful to specify what forms of material are relevant, for example:
  - For alumina refiners, bauxite supply
  - For aluminium smelters, alumina supply, and where applicable, Cold Metal supply
  - For aluminium re-melters and/or refiners, Recyclable Scrap Material and/or Cold Metal supply
  - For Casthouses, Liquid Metal and Cold Metal supply
  - For Post-Casthouse Entities, aluminium supply.
- For Entities, that have more than one of the above activities, consider how to best frame the policy taking into account the level of vertical integration of the company and/or joint venture partners.
- The policy should as a minimum address relevant criteria in the ASI Performance Standard, including those addressing responsible sourcing, anti-corruption, human rights, and conflict-affected and high risk areas.
  - ASI Members in the 'Production and Transformation' membership class will already be addressing these issues under their certification for the ASI Performance Standard.
  - While ASI Members in the 'Industrial Users' membership class do not have these requirements as applicable to them under the ASI Performance Standard, they need to consider these risks for suppliers of Non-CoC and Recyclable Scrap Material under the ASI CoC Standard.
  - Further guidance on implementation for these risk issues can be found in the ASI Performance Standards Guidance.
- The policy can of course consider other specific risk areas such as regulatory compliance, labour and working conditions or health and safety performance, or the suppliers' environmental track record. An understanding of materiality of issues to different supply chain stages will help inform the development of your policy and the assessment of risks of non-conformance with it. Entities may also wish to consider additional issues above the minimum specified, such as:
  - Biodiversity management, in relation to Bauxite Mining and/or Alumina Refining
  - Bauxite residue management in relation to Alumina Refining
  - GHG emissions in relation to Casthouse Products
  - Health and safety in relation to scrap collection and sorting
  - Environmental management generally
  - Specific risks associated with scrap collection, sorting and/or recycling in the informal sector in developing countries and emerging economies.[12]
- Entities should also take into account the applicable legislation related to responsible sourcing in their areas of operation.
  - For example, the UK Modern Slavery Act 2015 requires transparency on supply chain due diligence undertaken, with global reach; the California Transparency in Supply Chains Act (2012) requires mid-sized to large companies to report on their specific actions to eradicate slavery and human trafficking in their supply chain; and France's 2017 'corporate duty of

[12] An ISO process has developed ISO IWA 19 Guidance Principles for the Sustainable Management of Secondary Metals as a means to help stimulate formalisation of such enterprises and the development of enabling government policy frameworks: http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=69354

vigilance' law requires large French companies to publish annual, public vigilance plans on how they assess and address the adverse impacts of their activities on people and the planet.

- Purchasing practices can be a significant risk factor for adverse environmental, social and rights impacts. For example, unplanned or last minute changes to requirements on suppliers can impact the way the suppliers deliver your needs such as breach labour, safety or environmental standards. Consideration should be given to how the policy commitments are stated so as to avoid these possible adverse impacts.
- The policy should be communicated to all relevant suppliers, irrespective of CoC status.
- An effective policy may be quite simple and high level, or highly detailed, as suits the organisation and the nature of its supply chains.

7.2	The Entity shall assess the risks of non-compliance with its responsible sourcing policy by its suppliers of Non-CoC Material and Recyclable Scrap Material, document the findings, and undertake measurable risk mitigation where risks of adverse impacts are identified.

Points to consider:

- Criteria 7.2 requires Entities to assess the risks of non-compliance with the Entity's responsible sourcing policy by suppliers of Non-CoC Material and Recyclable Scrap Material.
- The policy shall be applied to direct (Tier 1) suppliers.
    - Companies may also consider assessing and/or mitigating risks beyond Tier 1 through a due diligence process, or by requesting suppliers to in turn assess their own suppliers.
    - Due diligence should be scaled to the size and significance of the supplier.
- Informal or very small scrap dealers may present particular challenges for due diligence. This can involve both identifying and mitigating 'worst practices', where present, but there is also a potentially valuable role that Entities can play in supporting the formalisation and improvement of this sector.[13]
    - Worst practices identified in the ISO IWA 19 Guidance include illegal shipments, dangerous manual dismantling practices, dangerous metallurgical processing, uncontrolled incineration and uncontrolled disposal.
    - In some contexts, there may be risks of forced or child labour, or health and safety risks in addition to those above.
    - Benefits of engagement with informal or small scrap dealers can include improved safe and healthy working conditions, improved environmental protection, improved local community outcomes and improved recovery of scrap resources.
- Many businesses have existing processes for risk assessment of their business partners, and the requirements of criteria 7.2 can be integrated or expanded as needed. These may include pre-qualification requirements and risk weighting of suppliers, for example, which will be directly relevant to the requirement of 7.2.

Risks for Recyclable Scrap Material

Risks relating to origin and suppliers of Recyclable Scrap Material can vary significantly. A risk assessment could consider the following factors:

- *The origin of the material*
- *The supplier*
- *The type of material*
- *The value of the transaction*
- *Unusual circumstances*

For Recyclable Scrap Material, the origin is considered to be the country in which scrap is generated, or are first given up to be recycled, e.g. post-consumer scrap. Supplier information is collected under section 5 of the CoC Standard.

[13] *ISO IWA 19 Guidance Principles for the Sustainable Management of Secondary Metals*: http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=69354

- Make sure you document the findings from the risk assessment, (i.e. how you assessed the risks and what you found), plus any subsequent risk management or mitigation processes.
- Where available, existing certification and audit programs may help support risk mitigation efforts.
    - For example, for scrap recycling companies, the RIOS Certification program covers key attributes of environmental management, quality and occupational health and safety applicable to this sector.
- Where risks of adverse impacts are identified, measurable action needs to be taken to prevent or mitigate the identified risks.
    - The OECD Due Diligence Guidance[14] advises companies to devise a strategy for risk management by either (i) continuing trade throughout the course of measurable risk mitigation efforts; (ii) temporarily suspending trade while pursuing ongoing measurable risk mitigation; or (iii) disengaging with a supplier after failed attempts at mitigation or where a company deems risk mitigation not feasible or unacceptable.
    - The OECD Due Diligence Guidance aims to promote significant and measurable improvement within six months of the adopted risk management plan. It is acknowledged that some situations have higher degrees of complexity than others.
    - The risk assessment and opportunity to mitigate the risks will depend on the Entity's sphere of influence. For example, when sourcing aluminium from traders, it may not be possible to directly trace the provenance of the aluminium. In these cases the risk mitigation measures may be limited to communication of the Entity's responsible sourcing policy to its traders, and where adverse risks are identified, that these are communicated to the Entity.
- Due diligence may be a new activity for your business, or it may be an extension of current practices or indeed a fundamental risk practice already in place. However auditors should understand that this is an area of evolving practice in supply chains.
    - If an Entity is not conducting any due diligence for non-CoC inputs or Recyclable Scrap Material, then this would be a major non-conformance against the CoC Standard, and would prevent the Entity from being CoC Certified.

If an Entity is conducting some form of due diligence for these inputs, but there is room for improvement, then this would be subject to a corrective action plan but would not prevent CoC Certification.

7.3	**The Entity shall establish a complaints mechanism as per criteria 3.2 in the ASI Performance Standard, that is appropriate to the nature, scale and impact of the business and that allows interested parties to voice concerns about non-compliance with its responsible sourcing policy in its Aluminium supply chain.**

Points to consider:

- This criteria focuses on establishing a complaints mechanism to handle concerns that may be raised by interested parties and stakeholders about non-compliance with the Entity's responsible sourcing policy in its aluminium supply chain.
- The OECD Due Diligence Guidance recommends companies establish a company-level, or industry-wide, grievance mechanism as an early-warning risk-awareness system. ASI's Complaints Mechanism does not replace the need for the Entity to have its own separate mechanism under the CoC Standard.
- The Entity's complaints mechanism should be documented and information about it should be publicly available, so that interested parties can be aware that a formal mechanism is in place.
- The document should describe the types of complaints that are admissible and are not admissible, and the procedures followed in investigating and addressing complaints.

[14] http://www.oecd.org/corporate/mne/mining.htm. In addition, the China Chamber of Commerce of Metals, Minerals and Chemicals Importers & Exporters (CCCMC) has cooperated closely with the OECD in preparing the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains. These are available in English and Chinese at: https://mneguidelines.oecd.org/chinese-due-diligence-guidelines-for-responsible-mineral-supply-chains.htm

- For Entities that already have a complaints mechanism established for their own operations under the ASI Performance Standard ('Production and Transformation' members), consider how this can be extended or adapted to cover supply chain concerns regarding the Entity's responsible sourcing policy.

- Smaller businesses probably only need a simple procedure documented.
- For Entities without a relevant company website, or that are not consumer-facing, a contact point for the complaints mechanism could be included in CoC Document, to enable customers and suppliers to raise concerns. Other interested parties could access information about the complaints mechanism on request.
- Note that concerns raised about any CoC Material must also be drawn to the attention of ASI so they can be investigated by the ASI Complaints Mechanism.

Getting Started

Entities seeking CoC Certification should:

- Develop or expand a responsible sourcing policy for aluminium that is appropriate to the business' circumstances.
- Communicate the policy to suppliers and consider making it available on a website.
- Assess the risks of non-compliance with your responsible sourcing policy by suppliers of Non-CoC Material.
- Develop or expand a complaints mechanism that can address stakeholder concerns on the issues in your policy.

Review:

- Due diligence practices for minerals and metals supply chains are becoming an increasing expectation of stakeholders and regulators.
- Due diligence towards Non-CoC Material enhances the broader credibility of CoC Certification.
- The CoC Standard requires all Entities to establish appropriate due diligence systems, including a policy, risk assessment and mitigation, and a complaints mechanism.
- The CoC Standard **does not** require ASI Members or Entities to source only from other ASI Members or Entities, or at all.

C. CoC Material Accounting and Documentation

8. Mass Balance System: CoC Material and ASI Aluminium

The Mass Balance System requires each successive Entity handling CoC Material to be CoC Certified to create an unbroken chain of custody. It allows for CoC Materials to be mixed with Non-CoC Material over a defined period, at any stage in the value chain. The Entity's Material Accounting System is used to record and calculate the percentage-based input and output of CoC Materials. Note that the CoC Standard stipulates that the output of CoC Material cannot be allocated as 'partially CoC' – so if 20% of output is 'CoC', that 20% is 100% CoC (and not all output is "20% CoC").

Applicability

Criteria 8.1-8.11 are applicable to Entities with inputs and/or outputs of CoC Material, as noted.

Supply chain activity	Applicability of CoC Standard Criteria										
	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	8.10	8.11
Bauxite Mining											
Alumina Refining											
Aluminium Smelting											
Aluminium Re-melting/Refining											
Casthouses											
Post-Casthouse											

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

A Chain of Custody is managed through an Entity's internal control of the material it sources and/or supplies. Mass Balance chain of custody approaches are systems for administratively accounting for the inputs and outputs of CoC Material throughout the supply chain. Most businesses handle both CoC and Non-CoC Material. ASI's approach allows for mixing of CoC and non-CoC Material over a defined period, and/or at any stage in the supply chain, provided that the outputs of CoC Material do not proportionally exceed the inputs of CoC Material.

Under a Mass Balance system, the key internal controls involve:

- Determining which inputs and/or outputs are eligible to be CoC Material (sections 3, 4, 5 and 6)
- Performing the relevant accounting and reconciliation over the defined period, to determine input percentages of CoC Material and how these can be allocated to outputs (section 8)
- Collecting and passing on relevant data for CoC Documents and related claims (sections 9, 10 and 12)

A critical component for administering a mass balance model is for each Entity to have a Material Accounting System. This is the part of the Entity's Management System (section 1) used for controlling and accounting for the inputs and outputs of CoC Material. They may be stand-alone systems or integrated with purchasing, process flow, inventory, accounting, or other systems.

Most businesses in the aluminium value chain already have 'material accounting' systems in place that record most or all of the relevant information for inputs to and/or outputs of production. These systems are used to facilitate effective inventory management and work flow, create traceability systems for quality control purposes, and support the business's financial accounting system. In many cases, such inventory and quality systems can be readily adapted for a CoC Material Accounting System.

The simplest situation for a business is to source and/or supply only CoC Material. This would be the case for most mines, for example, where CoC Certified mines could sell all of their production as ASI Bauxite. These types of Entities will require relatively simple records of input and output quantities that will not require percentage-based calculations, since the percentage in and/or out will be fixed at 100%. However, the vast majority of businesses have multiple suppliers and more complex supply chains, sourcing and/or supplying a mix of CoC and non-CoC Materials.

Section 8 sets out the material accounting controls to record and calculate the percentage-based input and output of CoC Materials. These are provided in some detail so as to support consistency of approach across all Entities handling CoC material. Members and auditors should define appropriate tolerances by taking into account, for example:

- Accuracy of scales, for example calibration to the nearest 1 tonne, or 1kg.
- Requirements of customers (internal or external)
- Normal industry practice

Other metals contained in alloys, platings, coatings, laminates or product components, and other materials such as plastics, glass, paints and agricultural products, that may be found in combination with CoC Material or Eligible at one or more stages of the value chain, are outside the scope of the ASI CoC Standard and are treated as neutral materials.

Note that the Mass Balance System approach requires each successive Entity handling CoC Material to be CoC Certified. For circumstances where this is difficult to achieve for downstream users of aluminium, the 'Market Credits System' approach has been designed as an alternative (see section 11) and can be a pathway towards building up a Mass Balance approach.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

8.1	The Entity's Management System shall include a Material Accounting System that records Input Quantity and Output Quantity of CoC Material and Non-CoC Material, by mass.

Points to consider:

- The Material Accounting System forms part of the Entity's Management System in section 1. It can sit at a Facility level and/or at a group or business level, as appropriate.
- The Material Accounting System records Input Quantity and Output Quantity of CoC Material and non-CoC Material.
    - Input Quantity and Output Quantity are the sums of all inputs and outputs over the Material Accounting Period. These will be reliably determined by recording information contained in each incoming and outgoing CoC Document.
    - Record quantities in an appropriate form of measurement for the material, eg mass in tonnes.

- If Input (e.g. a bauxite mine) or Output (e.g. a final customer) is zero, this should be recorded.
- Up to and including the Casthouse, inputs and outputs are different kinds of CoC Material, and these should be identified. For example, the input to a refiner is bauxite, and the output is alumina.
- Similarly, where ASI Aluminium is sourced and/or produced in multiple forms by the Entity, the different forms should be differentiated (for example, casting ingot and alloy wheels; sheet and stamped parts).

- Note that calculation of Input Percentages will require common units of measurement for inputs and outputs of CoC Material – in most cases this will be mass.
  - Where outputs mass need to be determined, net mass of CoC Material contained in products (not including packaging material or other non-Aluminium materials) may need to be calculated. Record assumptions used in any such calculations.
  - Post-Casthouse Entities may be sourcing multiple forms of input ASI Aluminium. For example, an automotive company may source engine blocks, radiator tubing, alloy wheels, and sheet. The input quantities of each would be separately recorded. Under the Mass Balance System, mixing can occur and this could include re-allocation of 'CoC Material' status from one kind of input to a different kind of output. Criteria 8.9 will apply overall.
- Consider how existing purchasing, process flow, inventory, accounting, or other systems could be adapted to act as, or be linked to, the Material Accounting System for the CoC Standard.
- Specifically consider how to link and capture input and output data that is included in CoC Documents (section 9) and Credits Certificates (section 10). The systems need to be able to ensure that:
  - Incoming shipments of CoC Material are consistent with accounting data for purchased materials
  - Outgoing shipments of CoC Material are consistent with accounting data of sold materials
  - This data can support mass balance reconciliations as per criteria 8.9.
- Note that for the purposes of material accounting, alloys which contain ≥90% aluminium and <10% other elements are accounted as 100% CoC Material, even if the percentage of aluminium contained in that Material is only, for example, 90% of the total metal. This is because the other alloying elements are not within the scope of the CoC Standard and are considered neutral materials. Thus any necessary mass calculations do not need to take into account the variable purity of CoC Material inputs or outputs (but as noted above, must be net mass of Aluminium, not counting packaging or other materials).

8.2	**An Entity engaged in Aluminium Re-Melting/Refining to produce Recycled Aluminium shall also record the following breakdown of Recyclable Scrap Material in their Material Accounting System:** **a. Input Quantity of Post-Consumer Scrap.** **b. Input Quantity of Pre-Consumer Scrap (total).** **c. Input Quantity of Pre-Consumer Scrap that is Eligible Scrap, where it is supplied directly from a CoC Certified Entity (where applicable).**

Points to consider:

- This criteria is only applicable to Entities engaged in Aluminium Re-Melting/Refining to produce Recycled Aluminium.
- In addition to the information in criteria 8.1, the Material Accounting System needs to record breakdowns of the Input Quantity of Recyclable Scrap Material into:
  - Pre-Consumer Scrap (total).
  - Pre-Consumer Scrap that is Eligible Scrap (that is, where it has been supplied directly from a CoC Certified Entity with a CoC Document as per section 4, or internally generated and accounted for as Eligible Scrap under criteria 8.8)
  - Post-Consumer Scrap (also Eligible Scrap)

- This information will be needed for the calculations in criteria 8.5. It is also reported to the ASI Secretariat under criteria 1.7(d).

8.3	The Entity's Material Accounting System shall specify a Material Accounting Period, which shall not be longer than 12 months.

Points to consider:

- A Material Accounting Period is a period of time during which CoC Material, Eligible Scrap and/or ASI Credits inputs and outputs are accounted for and reconciled.
- The Material Accounting System needs to set this parameter to allow Input Percentages to be averaged over a given period (e.g. monthly, quarterly or annually).
- The Entity can decide how long to set their Material Accounting Period, which can be up to a maximum of 12 months. Consider the variability of CoC Material vs Non-CoC Material supply, and what timeframes may work best to plan for and manage potential demand for CoC Material output and/or claims.
- An Entity is free to choose its own Material Accounting Period, however ASI requires reporting of some information on a calendar year basis in criteria 1.7. This may be a consideration for your choice of Material Accounting Period and/or the design of your Material Accounting System to enable aggregation to a calendar year and streamlining of reporting.

8.4	The Entity shall calculate and record the Input Percentage for a given Material Accounting Period using the following formula (except where 8.5 is applicable): $\text{Input Percentage} = \frac{\text{(Input Quantity of CoC Material)} \times 100}{\text{(Input Quantity of CoC Material)} + \text{(Input Quantity of Non-CoC Material)}}$ The units used in the numerator and the denominator must be the same.

Points to consider:

- The Input Percentage applies for a given Material Accounting Period. Calculating it requires knowing the Input Quantity of CoC Material and Non-CoC Material (from 8.1) and using these in the above formula.
    - Depending on the types of CoC Material handled by the Entity and their desired approach, this could be an overall input/output, or types of CoC Material could be differentiated. For example, Post-Casthouse Entities involved in various types of semi-fabrication may wish to implement a more detailed level of accounting. The same principles apply at the detailed level or at an aggregate level.
- Note the need for consistent units in the numerator and denominator.
- While the Material Accounting System needs to define a final Input Percentage for a Material Accounting Period, regular tracking during the Period will be useful for managing a variable supply and demand of CoC Material during this time.
- Bauxite mines that are eligible to sell all of their production (output) as ASI Bauxite are considered to have an Input Percentage of 100%. Where their production is mixed with other production before shipment, the other sources should be categorised into either 'Input Quantity of CoC Material' or 'Input Quantity of Non-CoC Material' as appropriate, in order to calculate the applicable Input Percentage.
- Smelters that re-melt internally generated scrap and want to account for the relevant amount of Eligible Scrap as CoC Material (see criteria 8.8) can do so here under criteria 8.4 instead of 8.5.

8.5	An Entity engaged in Aluminium Re-Melting/Refining shall calculate and record the Input Percentage for a given Material Accounting Period using the following formula: Input Percentage = $\frac{\text{(Input Quantity of Eligible Scrap) x 100}}{\text{(Input Quantity of Recyclable Scrap Material)}}$ The units used in the numerator and the denominator must be the same. The Input Quantity of Eligible Scrap and Recyclable Scrap Material shall be based on an assessment of aluminium content.

Points to consider:

- This criteria is only applicable to Entities engaged in Aluminium Re-Melting/Refining to produce Recycled Aluminium.
- The Input Percentage applies for a given Material Accounting Period. Calculating it requires knowing the Input Quantity of Eligible Scrap and total Recyclable Scrap Material (captured under 8.2) and using these in the above formula.
- Note the need for consistent units in the numerator and denominator – this will nearly always be mass for this type of Entity (e.g. tonnes).
- Incoming scrap material may come in a variety of forms and levels of purity, and in some cases may be mixed with other metals and non-metals. The Input Quantities for both Eligible Scrap and Recyclable Scrap Material used in the formula should be determined based on a reasonable assessment of the aluminium content of the incoming scrap materials.
    - This could be based on knowledge of the materials where it is a consistent quality (usually the case for pre-consumer scrap, and sometimes for post-consumer e.g. used beverage cans).
    - Alternatively it may need to be calculated after further processing, or after melting and assaying.
    - Note that as noted under 8.1 above, aluminium purity does not need to be considered, but aluminium content vs other non-aluminium materials does. In other words, aluminium alloys can be considered all Aluminium from an 'aluminium content' perspective for this criteria.
- While the Material Accounting System needs to define a final Input Percentage for a Material Accounting Period, regular tracking during the Period will be useful for managing a variable supply Eligible Scrap during this time.

8.6	The Entity shall use the Input Percentage for the given Material Accounting Period to determine the Output Quantity of CoC Material, by mass.

Points to consider:

- The Output Quantity is determined using the Input Percentage calculated in 8.4 or 8.5. As the system is based on a Mass Balance approach, the Input Percentage is the same as the output percentage. So if 30% of the total input is CoC Material, then 30% of the total output can be designated as CoC Material.
- As for 8.1, the Output Quantity can be recorded in an appropriate form of measurement for the material – in most cases this will be mass.
    - Where output mass needs to be determined, net mass of CoC Material contained in products (not including packaging material or other non-Aluminium materials) may need to be calculated. Record assumptions used in any such calculations.
- Using a percentage-based approach automatically takes into account material losses during processing.

8.7	The Output Quantity of CoC Material, which may be a subset of total production, shall be designated as 100% CoC Material.

Points to consider:

- The Output Quantity of CoC Material is designated as all CoC Material (i.e. 100%) and not partially so.
- In other words, the percentage based model **cannot** be used to claim that all production is "part-ASI", for example "all our billets are 50% ASI".
- This concept is illustrated below:

Figure 12 – How to designate CoC Material outputs

- Where Output Quantity is counted by item rather than mass, partial amounts should be rounded down to a whole item.

8.8	If the Entity produces Pre-Consumer Scrap from its processing and wishes to designate the relevant proportion as Eligible Scrap, the Entity shall use the Input Percentage for the given Material Accounting Period to determine the Output Quantity of Eligible Scrap.

Points to consider:

- This criteria is only applicable to Entities that produce Pre-Consumer Scrap from their processing, and want to designate it as Eligible Scrap as an input to an Aluminium Re-Melting/Refining process (either their own or another CoC Certified Entity's).
    - Where transferred to another Entity, it would be accompanied by a CoC Document (see section 9).
- Determining the amount of Eligible Scrap uses the same Input Percentage calculated in 8.4 or 8.5, and applies it to the total amount of Pre-Consumer Scrap produced by the Entity.
- In other words, when calculating the proportion of CoC Material for input, outputs and scrap generated, the same percentage is used for each (the Input Percentage).
- This concept is illustrated below:

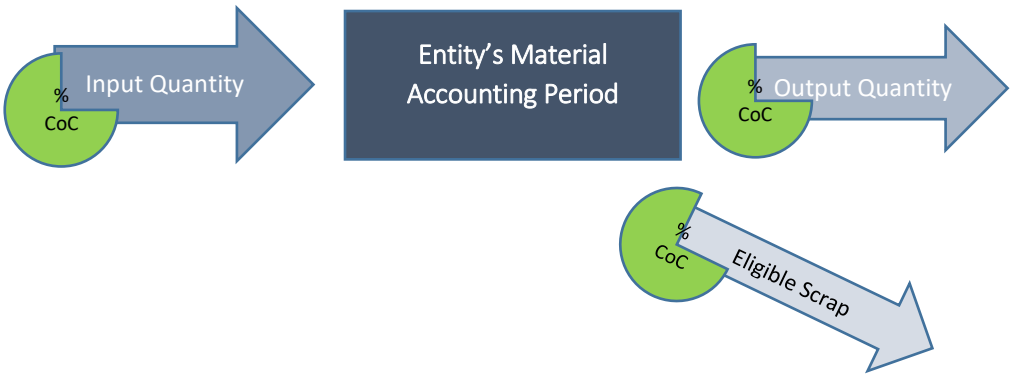


Figure 13 – How to designate Eligible Scrap from internally generated scrap

- Eligible Scrap is then used as an input to an Aluminium Re-Melting/Refining process. Smelters that re-melt internally generated scrap can account for the relevant amount of Eligible Scrap as an input CoC Material under criteria 8.4. This is illustrated with the example scenario shown below:

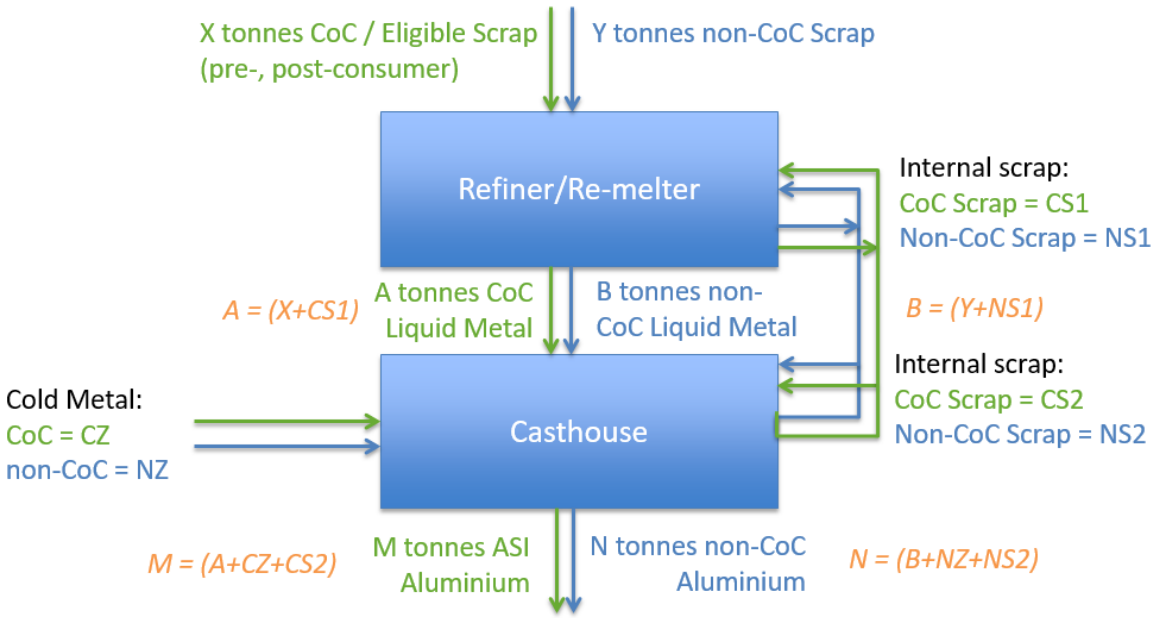
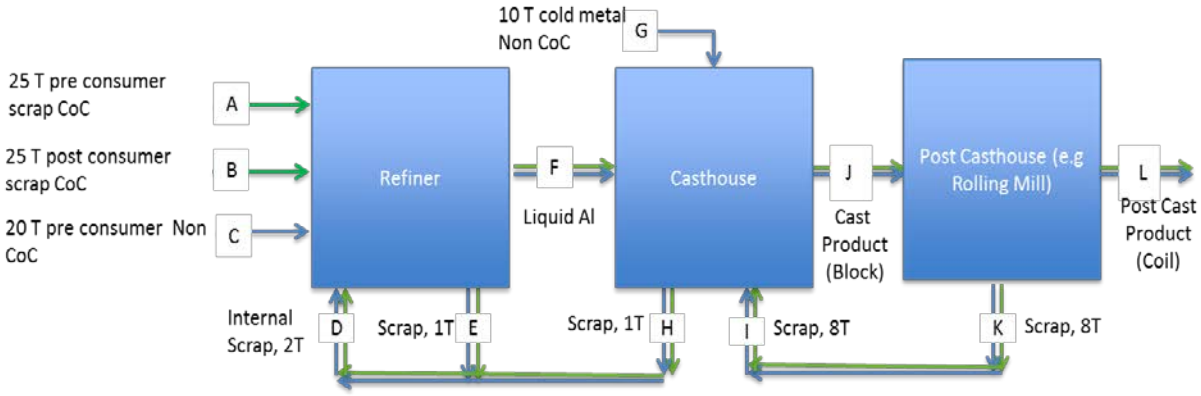


Figure 14 – Example of metal flow between a Refiner/Re-melter and a Casthouse containing both CoC and Non-CoC Materials

- The example above illustrates that internal scrap can be generated at the refining/remelting stage or at the Casthouse stage. The Input Percentage is used to calculate the amount of scrap that is CoC (marked as CS) and Non-CoC (marked as NS).
- The calculations are as follows:
  - Input Percentage of CoC Scrap to the Refiner/Re-melter is= X/(X+Y)x100. This can be used to calculate the amount designated as CoC Scrap (CS1) generated from the re-melting/refining process.
  - Input Percentage of ASI Liquid Metal to the Casthouse = A/(A+B)×100. This can be used to calculate the amount designated as CoC Scrap (CS2) from the casthouse process.
  - Depending on the nature of the scrap material, these may be fed back into the Refiner/Re-melter or Casthouse as appropriate, however the amounts determined to be CoC Material (CS1+CS2) have been determined by the relevant Input Percentages.
- A more detailed example of mass flow containing both sources of CoC Material and Non-CoC Material, as well as mixed flows between a Refiner, a Casthouse and a Post Casthouse rolling Mill is shown below. In this scenario, in each batch (or as per the defined Material Accounting System):
  - The Refiner sources 25 tonnes of pre-consumer scrap which is CoC Material (stream A), 25 tonnes of post-consumer scrap (stream B) which is CoC Material and 20 tonnes of pre-consumer scrap (stream C) which is Non-CoC material to produce 71 tonnes of Liquid Aluminium (stream F, containing CoC and Non-CoC material based on the calculated input percentages). It also uses and generates Recyclable Aluminium Scrap (streams D and E, each containing CoC and Non-CoC material).
  - The Casthouse uses the Liquid Aluminium from the refiner (stream F) and adds 10 tonnes of cold non-CoC aluminium (stream G) to produce cast block (stream J, containing CoC and Non-

CoC material), which is sent to the rolling mill. It also generates scrap (stream H) and recycles scrap generated by the rolling mill (stream I).

- The rolling mill produces 80 tonnes of coil of which 50 tonnes is ASI Aluminium.



Stream ID	Description	Stream Mass Flow (Tonnes)		
		CoC Material	Non-CoC Material	Total
A	Pre-Cons CoC to Refiner	25.0	0.0	25.0
B	Post-Cons CoC to Refiner	25.0	0.0	25.0
C	Pre-Cons Non-CoC to Refiner	0.0	20.0	20.0
D	Internal Scrap to Refiner	*1.3*	*0.7*	2.0
E	Refiner Scrap	*0.7*	*0.3*	1.0
F	Hot Al to Casthouse (liquid)	*50.6*	*20.4*	*71.0*
G	Cold Non-CoC to Casthouse	0.0	10.0	10.0
H	Casthouse Scrap	*0.6*	*0.4*	1.0
I	Post-Casthouse Scrap to Casthouse	*5.0*	*3.0*	8.0
J	Cast Product (Block) to Rolling Mill	*55.0*	*33.0*	*88.0*
K	Rolling Mill Scrap	*5.0*	*3.0*	8.0
L	Rolled Product	*50.0*	*30.0*	*80.0*

Notes to table and diagram:

Note 1: Green arrows represent CoC flows, blue arrows represent non-CoC flows.
Note 2: The breakdown between CoC and Non-CoC Material is required for A, B, C and G.
Note 3: % ASI Liquid Metal = 71.3%.
Note 4: % ASI Aluminium = 62.5%.
Note 5: Italicised numbers have been calculated and/or derived from known inputs as illustrated in the figure.

Figure 15 – Example of metal flows containing both pre- and post-consumer scrap

8.9	The Entity's Material Accounting System shall ensure that the total output of CoC Material and/or Eligible Scrap does not proportionally exceed the Input Percentage as applied to total input of CoC Material and/or Eligible Scrap over the Material Accounting Period.

Points to consider:

- One of the main principles of the Mass Balance System is that outputs of CoC Material and/or Eligible Scrap must be proportional to the inputs of CoC Material and/or Eligible Scrap.
- The Material Accounting System plays a critical role in recording and tracking this.
- It is an essential control responsibility for the Entity that the outputs of CoC Material must be calculated using the Input Percentage and must not proportionally exceed inputs of CoC Material.

- Undertaking regular reconciliations of inputs and outputs will help keep the Entity on track over the Material Accounting Period.

8.10	Where CoC Material is under contract for delivery to an Entity within a given Material Accounting Period, but is subject to a force majeure situation, the Entity's Material Accounting System may carry over an Internal Overdraw to the subsequent Material Accounting Period. a. The Internal Overdraw shall not exceed 20% of total Input Quantity of CoC Material for the Material Accounting Period. b. The Internal Overdraw shall not exceed the amount of CoC Material affected by the force majeure situation. c. The Internal Overdraw shall be made up within the subsequent Material Accounting Period.

Points to consider:

- An Internal Overdraw is where the Entity's Material Accounting System allows the Output Quantity to temporarily exceed the Input Quantity in a Material Accounting Period.
- An Internal Overdraw is only permitted when CoC Material has been contracted to be delivered to the Entity, but a force majeure situation has prevented timely delivery.
    - A force majeure situation is one that is out of the Entity's control and could include closure of the supplier, or delay in an anticipated delivery through accident, strike, adverse weather, or similar.
- Additionally, the Internal Overdraw concept is only relevant where the force majeure situation means that previously contracted delivery to a subsequent customer of CoC Material to be produced by the Entity cannot now be supplied.
- The Internal Overdraw criteria is not intended for use as a way to manage unanticipated demand during a Material Accounting Period.
- An Internal Overdraw, if used, must be able to be made up in the subsequent Material Accounting Period, and in terms of size, must not be more than 20% of total Input Quantity of CoC Material for the current Material Accounting Period.
    - This limit is to prevent a situation where Internal Overdraws cannot be subsequently made up.

8.11	Where an Entity has a Positive Balance of output CoC Material at the end of a Material Accounting Period, this may be carried over to the subsequent Material Accounting Period. a. The Entity's Material Accounting System must clearly identify any carry over of a Positive Balance. b. A Positive Balance generated in one Material Accounting Period and carried over to the subsequent Material Accounting Period shall expire at the end of that Period if not drawn down.

Points to consider:

- A Positive Balance is the net difference, where an Entity's total CoC Material and/or Eligible Scrap inputs are higher than the Entity's total CoC Material and/or ASI Credits transferred to another Entity at the end of a Material Accounting Period.
    - This situation could arise where there are insufficient customers for CoC Material produced by the Entity in that period. In other words, supply is higher than demand.
- A Positive Balance of CoC Material can be carried over to the subsequent Material Accounting Period.
- For Casthouses, a Positive Balance of CoC Material could be carried over for allocation to ASI Credits in the subsequent Material Accounting Period.
    - ASI Credits must be issued and allocated within a Material Accounting Period and not carried over. See more on ASI Credits in section 11.

- Positive Balances of CoC Material must expire at the end of the subsequent Material Accounting Period, if not drawn down during that time.
- The Material Accounting System must document the draw down and/or expiry of a Positive Balance that is carried over.

Getting started

Businesses should review the relevant IT and data management systems they already have in place to measure, track and reconcile material in their custody and see how these could be extended or adapted to serve as their Material Accounting System for the CoC Standard.

Effective training of employees about internal systems and controls to support conformance with the CoC Standard will be important, particularly where there are significant adaptations of existing systems.

It should be noted that for smaller businesses, internal control systems do not need to involve expensive or sophisticated systems. Smaller businesses using simple systems (e.g. an Excel spreadsheet) can readily conform to the CoC Standard. Nevertheless, systems that make extensive use of manual data entry are much more prone to error. They should be minimised or used only as part of a transition, where they are inefficient or not in proportion to the scale of the business.

Review:

- The CoC Standard uses a Mass Balance System, where Output Quantity must not exceed Input Quantity on a percentage basis.
- Material Accounting Systems must record and be able to reconcile the inputs and outputs of CoC Material over time.
- The Output Quantity of CoC Material must be designated as '100%' CoC Material, such that the CoC Material is allocated to an appropriate portion of production, not spread across all of it.
- Most businesses should already have the basic requirements for material accounting in place, but they may need some adjustments to meet the CoC Standard.

9. Issuing CoC Documents

The Mass Balance System is supported by accurate CoC information accompanying shipments of CoC Material. In the CoC Standard, the set of required CoC information is referred to as CoC Documents (a template is in Appendix 1 of the CoC Standard). Entities often integrate CoC information into their usual shipment processes, such as sales invoices or shipping documentation. Additional data and information may also be included in CoC Documents at the business' discretion, but must be accurate and verifiable.

Applicability

Criteria 9.1-9.6 are applicable to all Entities that ship CoC Material to another Entity.

Supply chain activity	Applicability of CoC Standard Criteria					
	9.1	9.2	9.3	9.4	9.5	9.6
Bauxite Mining						
Alumina Refining						
Aluminium Smelting						
Aluminium Re-melting/Refining						
Casthouses						
Post-Casthouse						

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

As physical aluminium is shipped from one Entity to another, a mechanism is needed to initiate or continue a Chain of Custody. A CoC Document is used to record relevant information about a shipment of CoC Material and the sequence of custody as it is transferred along the supply chain, to thus create the Chain of Custody.

The information contained in CoC Documents must be supported by the Entity's Material Accounting Systems in section 8 of the CoC Standard. Under the Mass Balance System, a calculated percentage of output over a given Material Accounting Period can be designated as 'CoC Material'. The relevant information about this CoC Material needs to be passed on to the next customer in the value chain.

Businesses may also wish to pass on additional data and/or information that is relevant to their customers. The CoC Standard categorises these into two types: Sustainability Data and Supplementary Information.

CoC Documents are aimed at business-to-business transfers of CoC Material, including to and from Outsourcing Contractors. They cannot be used for Market Credits (see section 11). For more general marketing and communication, including to consumers, see section 12 of the Standard.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

9.1	The Entity shall ensure that a CoC Document accompanies each shipment or transfer of CoC Material dispatched to other CoC Certified Entities or Outsourcing Contractors.

Points to consider:

- Where a Chain of Custody is to be maintained between different businesses, a CoC Document needs to be issued. This can be a stand-alone document (a template is contained in Appendix 1 of the CoC Standard), or alternatively the required information can be integrated into the Entity's normal invoice or shipping documentation.
- Ideally the CoC Document should physically accompany each shipment or transfer of CoC Material.
- Where this is not possible, the CoC Document must be supplied separately (eg by email or secure website download) and relevant information to enable the receiving Entity to link the CoC Document with the relevant CoC Material will need to be included in the CoC Document.
    - For example, the CoC Document could note specific reference numbers attached to the shipment itself or contained in accompanying shipping documentation.
- If an Entity is just interested in sourcing CoC Material but does not intend to pass on any claims to subsequent entities, then a CoC Document is not required to be issued as there is no further trail of CoC Material beyond them.
- A CoC Document is optional for an internal transfer within an Entity, providing the relevant Facilities are within the same CoC Certification Scope.
    - Depending on the nature of the Entity's internal systems, issuing a CoC Document for internal transfers may help to support the requirements for proper record-keeping and accounting, or it may be redundant.
- Where an Outsourcing Contractor ships CoC Material onwards to another customer, the Entity will need to ensure that the required procedures for CoC Documents are clearly understood and followed by the Outsourcing Contractor.
    - As the Outsourcing Contractor is within the Entity's CoC Certification Scope, the Entity is responsible for their conformance.

9.2	The Entity shall ensure that CoC Documents include at least the following information: a. Date of issue of the CoC Document. b. Reference number for the CoC Document, which is linked to the Entity's Material Accounting System for verification purposes. c. The identity, address and CoC Certification number of the Entity issuing the CoC Document. d. The identity and address of the customer receiving the CoC Material, and if it is another CoC Certified Entity, their CoC Certification number. e. The responsible employee of the Entity who can verify information in the CoC Document. f. A statement confirming that "The information provided in the CoC Document is in conformance with the ASI CoC Standard." g. Type of CoC Material in the shipment. h. Mass of CoC Material in the shipment. i. Mass of total Material in the shipment.

Points to consider:

- Criteria 9.2 identifies the information required in all CoC Documents – whether they are stand-alone or integrated into other documentation.

- An Entity may use its own format rather than the template in Appendix 1 of the CoC Standard, providing it includes all of the required elements. An example of a completed template is below.
- The Entity's Material Accounting System needs to record an internal reference number for all CoC Documents issued (9.2b). This is for traceability purposes.
    - There may be a range of already existing reference numbers that can be used, and an Entity should decide which works best for them. For example, production tracking numbers, order numbers, or sales document/invoice numbers could be relevant. The key is to choose a reference that can help to control and account for volumes to ensure that you are not claiming more CoC Material than you are entitled to.
- Where different forms of CoC Material are being shipped in the same shipment (e.g. different types of Casthouse Products), the various forms should be noted. This will enable the receiver to check the shipment against the CoC Document/s.
- Where products are made from multiple materials, the mass of aluminium (9.2h and 9.2i) will be a subset of the total mass of the shipment. Consider including information in your material accounting system on the mass of aluminium per kg/tonne for standard products to help automate the calculation for individual shipments, based on the total mass of the shipment/product x number of items. The mass of CoC Material is then determined by what you want to allocate to different shipments/customers, out of your balance in your Material Accounting System.
- A responsible employee for the Entity needs to be nominated. They have the responsibility to oversee the issue of CoC Documents, and to be the point of contact for requests for verification.
    - Some Entities may wish to include additional authorisation information in CoC Documents, eg a signature or e-signature, however this is not compulsory.
- Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/

9.3	**Where the Entity is engaged in one or more of the following activities, it may also include the applicable Sustainability Data in the CoC Document for that CoC Material:** **a. Entities engaged in Aluminium Smelting, and/or Aluminium Re-Melting/Refining, and/or operating a Casthouse: the average intensity of GHG emissions (scope 1 and scope 2) in tonnes CO_2 –eq per metric tonne ASI Aluminium, from the production of ASI Aluminium, which includes emissions from the Casthouse, produced in the Material Accounting Period.** **b. Post-Casthouse Entities: where available, the average intensity of GHG emissions (scope 1 and 2) in tonnes CO_2 –eq per metric tonne ASI Aluminium, based on the information provided in 9.3a in received CoC Document/s.** **c. Post-Casthouse Entities: ASI Certification status for the ASI Performance Standard for the Entity and/or Facility issuing the CoC Document.**

Points to consider:

- In addition to information about the respective parties and the CoC Material, an important feature of the ASI CoC Standard is its ability to provide relevant sustainability data, where available. The ASI CoC Standard focuses on GHG intensity and Post-Casthouse Certifications in its first iteration.
- Where an Entity engaged in Aluminium Smelting, and/or Aluminium Re-Melting/Refining, and/or operates a Casthouse, issues a CoC Document then it could include the data for 9.3(a). In most circumstances it will be the Entity's Casthouse (usually in the same CoC Certification Scope) which issues a CoC Document for ASI Aluminium.
    - For Aluminium Smelting, the methodology to be used to calculate GHG intensity is the Guidance and calculation tools developed by the International Aluminium Institute (IAI) and the GHG Protocol: http://www.ghgprotocol.org/calculation-tools/aluminum
        - The Entity must use the IAI methodology, or a methodology consistent with IAI, ensuring that any material differences to the IAI methodology are explained. The use

of an alternative, but consistent, methodology is to allow the input of better quality data as set out in some regulatory contexts.
        - The IAI methodologies for determining CO2 and PFC emissions from an aluminium smelter are calculations based on process parameters. There are methods for directly measuring GHG emissions of an aluminium smelter, but there is limited use of these to date.
        - For consistency across Entities, emissions related to anode production, electricity production, smelting (electrolysis), and casting must all be included in the calculation, irrespective of whether they are direct or indirect sources. In other words, emissions related to anode production and casting must be included in the calculation even if they fall under the definition of Scope 3 emissions.
        - *[Note: IAI are currently developing further guidance on data and calculations for Scope 2 emissions, which will be referenced once available].*
    - If there are multiple Aluminium Smelting and/or Aluminium Re-melting/Refining facilities within the one Certification Scope, then averaging of GHG intensity across these facilities would be required to align with the use of a mass balance model across the multiple facilities. Where averaging is used:
        - The average must be based on total combined quantity of GHG emissions and total combined production from these facilities, not just the ASI Aluminium component.
        - The CoC Document information must note that the figure is an average that has been calculated: for example, in Figure 17 below, it would say "5.7 (average across 2 smelters)".
    - For Aluminium Re-melting/Refining, the data would relate to their own processes only. It does not relate to GHG data from the previous production of the scrap material that they process.
- Where a Post-Casthouse Entity can pass on GHG info received about ASI Aluminium to the next entity in the supply chain, then it could include that data under 9.3(b). Note that care must be taken when dealing with multiple sources of ASI Aluminium with varying GHG intensity – averages cannot be simply averaged.
    - The GHG intensity of a mix of ASI Aluminium from multiple sources (e.g. a mix of Liquid Metal and Cold Metal, or a mix of ASI Aluminium from different suppliers) shall be calculated as the average value in proportion to each input quantity included in the mix. This average intensity must be calculated by dividing the total quantity of GHG emissions from each source by the total quantity of aluminium in the mix.
    - For the first Material Accounting Period, where GHG emissions of ASI Aluminium inputs may vary over time, consider how reliable the data will be over the whole period. It may be that this information could be provided in future as lag data, using an overall figure calculated for the previous Material Accounting Period.
- Post Casthouse Entities should also include either a link to their ASI Certification Information for the Performance Standard (where already certified), or the date of their applicable deadline for this certification. The latter is either within 2 years of joining ASI, or of the ASI Certification program being launched, whichever is later.

9.4	If the CoC Document includes Supplementary Information about the Entity or CoC Material, the Entity shall ensure that the Supplementary Information can be supported by objective evidence.

Points to consider:

- Supplementary Information can be included in a CoC Document at the Entity's discretion. Generally such information would be relevant to ASI Standards.

- All Supplementary information needs to be supported by objective evidence that is communicated in the CoC Document and/or retained by the Entity and made available to an ASI Accredited Auditor when requested.
- Examples of Supplementary Information include:
    - Where the CoC Document does not physically accompany the shipment (for example in 6.1(c)), the Supplementary Information could be shipping identification or Casthouse marks and/or reference numbers so that the receiving Entity can connect the CoC Document with the relevant CoC Material when received.
    - Any additional certifications or accreditations (beyond ASI Certification) to a recognised national or international standard and applying to the CoC Material or Entity. The applicable standard should be identified and the Entity will need to record objective evidence of such conformance, e.g. the applicable certification documentation. For example, ISO certifications or similar could be relevant to some customers.
    - Additional claims about origin, source or practices in the supply chain. Note such claims will be audited by ASI Accredited Auditors so must be truthful and supported by clear and unambiguous objective evidence. Examples could include country of origin of CoC Material, approaches to material stewardship of aluminium, use of carbon offsets etc.
    - Any other relevant information to the recipient of the CoC Document, for example website links to the Entity's responsible sourcing policy, contact information for the Entity's complaint mechanism where this not made available via a website (criteria 7.3), publicly available reports (e.g. sustainability reports), or general information about the business.
- Misleading or deceptive claims pose a significant risk to company reputation and may raise legal compliance issues under laws that prohibit false and deceptive advertising or reporting. Any issues with Supplementary Information identified by third parties should be brought to the attention of ASI. See the ASI Claims Guide for general principles on claims.

9.5	The Entity shall have systems in place to enable it to respond to reasonable requests for verification of information in CoC Documents issued by the Entity.

Points to consider:

- The responsible employee identified in the CoC Document will often be the first point of contact for an inquiry.
- Consider preparing a procedure in advance for how requests for verification of CoC Documents will be handled.
- Note that the Entity may need to supply a copy of a CoC Document, or verify information that it contains, particularly where it has not physically accompanied a shipment.
- Where a customer seeks additional copies of CoC Documents because of poor internal record keeping, this may indicate a problem with their systems. Where such requests become unreasonable, the Entity is not obliged to respond in each case. These types of situations should be brought to the attention of ASI.

9.6	If an error is discovered after CoC Material has been shipped, the Entity and the receiving party shall document the error and the agreed steps taken to correct it, and implement actions to avoid a recurrence.

Points to consider:

- Occasionally an error may be discovered by the Entity or by the receiving party after CoC Material has been shipped.
- Any errors found by the supplier should be promptly reported to the receiving business and remedied by both parties agreeing to the steps taken to correct it.

- Options include:
    - A return of the shipment and voiding of the CoC Document.
    - Retaining the shipment and voiding the CoC Document.
    - A voiding of the initial document and replacement by a corrected CoC Document.
- A complete set of records covering any errors and the agreed correction must be maintained by both parties for future audit purposes.

The cause of the error should be investigated and appropriate corrective actions identified and implemented. These should aim to address the root cause of the error/s in order to prevent future recurrences. Implementation of these corrective actions should also be reviewed for effectiveness.
Below are some examples of the required and optional information in a CoC Document.

ASI CoC Document *The information provided in this CoC Document is in conformance with the ASI CoC Standard.*			
Date of issue:	11 July 2016	**Reference number:**	58403890
Issuing Entity		**Receiving Customer**	
Name of company:	Acme Alumina	Name of company:	The 1886 Smelting Company
Address:	1000 Element Rd, Peel, WA, Australia	Address:	2 Hall-Heroult Avenue, Crystal Falls, Quebec, Canada
ASI CoC Certification number:	C00015	ASI CoC Certification number *(if applicable)*:	C00037
Responsible person:	Jan Rogers, VP Sales	Responsible person:	Pierre Thiebault, Receiving Department
CoC Material – Type *(check which applies)*			
	ASI Bauxite		
X	ASI Alumina		
	ASI Liquid Metal		
	ASI Cold Metal		
	ASI Aluminium		
CoC Material			
Form of Material	Weight of CoC Material in shipment:	Weight of total shipment:	Unit of measurement
Alumina	100,000	200,000	Tonnes
Sustainability Data (optional)			
Casthouse – average GHG intensity for ASI Aluminium *(tonnes CO_2 –eq per tonne Al)*			
Post-Casthouse – average GHG intensity for ASI Aluminium *(tonnes CO_2 –eq per tonne Al)*			
Post-Casthouse – ASI Certification status *(for ASI Performance Standard)*			
Supplementary information (optional)			
Acme Alumina has achieved ISO14001 certification. Our responsible sourcing policy is available at: www.acmealumina.com/responsiblesourcing			

Figure 16 – Example of a CoC Document for a fictional alumina refiner

ASI CoC Document *The information provided in this CoC Document is in conformance with the ASI CoC Standard.*			
Date of issue:	29 July 2016	**Reference number:**	98904280
Issuing Entity		**Receiving Customer**	
Name of company:	The 1886 Smelting Company	Name of company:	Rollers United
Address:	2 Hall-Heroult Avenue, Crystal Falls, QC, Canada	Address:	Lot 1100, Metals Park, Dearborn, MI, USA
ASI CoC Certification number:	C00037	ASI CoC Certification number *(if applicable)*:	C00059
Responsible person:	Anne-Laure Martin	Responsible person:	Matthew Johnson
CoC Material – Type *(check which applies)*			
	ASI Bauxite		
	ASI Alumina		
	ASI Liquid Metal		
	ASI Cold Metal		
X	ASI Aluminium		
CoC Material			
Form of Material	Weight or item count of CoC Material in shipment:	Weight or item count of total shipment:	Unit of measurement
Rolling slab	2000	2000	Tonnes
Sustainability Data (optional)			
Casthouse – average GHG intensity for ASI Aluminium *(tonnes CO_2 –eq per tonne Al)*		5.7	
Post-Casthouse – average GHG intensity for ASI Aluminium *(tonnes CO_2 –eq per tonne Al)*			
Post-Casthouse – ASI Certification status *(for ASI Performance Standard)*			
Supplementary information (optional)			
Our responsible sourcing policy is available at www.1886smelting.com/responsiblesourcing			

Figure 17 – example of a CoC Document for a fictional Casthouse associated with a smelter

Getting Started

To prepare to issue CoC Transfer Documents, businesses should:

- Review existing internal systems and see if they can be adapted to integrate or streamline the generation of CoC Documents.
- Nominate the responsible person who will oversee and authorise CoC Documents.

Review:

- CoC Material transferred to another business must be accompanied by a CoC Document for the Material, in order to retain its CoC status.
- The CoC Document provides critical information to the recipient, who will rely on it when making their own CoC representation to subsequent Entities in the supply chain.
- A CoC Document template is available for easy use as a standalone document, or alternatively Entities can integrate the required information and processes into their own internal systems.
- CoC Documents can be issued for internal transfers *within* different parts of an Entity's business, if this is useful for material accounting systems, but is optional.

10. Receiving CoC Documents

Entities that receive CoC Material will also receive the accompanying CoC Document (section 9) issued by their suppliers. Checking and recording this information supports the accuracy and reliability of the Mass Balance System.

Applicability

Criteria 10.1-10.4 are applicable to Entities that receive CoC Material.

Supply chain activity	Applicability of CoC Standard Criteria			
	10.1	10.2	10.3	10.4
Bauxite Mining				
Alumina Refining				
Aluminium Smelting				
Aluminium Re-melting/Refining				
Casthouses				
Post-Casthouse				

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

CoC Documents issued by CoC Certified Entities (section 9) are then received by customers with the shipped CoC Material.

In order to continue a Chain of Custody for that material, the receiving Entity needs to check and record relevant information in the CoC Documents. Checking and recording relevant information supports the accuracy and reliability of the Entity's material accounting for CoC Material. The following types of checks need to be carried out when receiving CoC Documents:

- Completeness
- Consistency
- Verification

It is important to keep records of all received CoC Documents. Missing documents could be retrieved from the Entity that issued the document, but that Entity would have to be satisfied with the reasons why a copy was needed and would not be obligated to provide a copy in all situations. During an audit, evidence of missing documentation for CoC Material, or persistent losses and requests for copies of previously issued documents, could provide evidence of a major non-conformance and loss of certification.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

10.1	The Entity shall verify that all required information in received CoC Documents, as set out in criteria 9.2 and 9.3, has been included.

Points to consider:

- Criteria 10.1 is a completeness check: is all the required information in criteria 9.2 and 9.3 contained in the CoC Document?
- Knowing the type of supplier will help you assess if required information in 9.3 is included. If you are unsure, you can ask the supplier.

10.2	The Entity shall verify the consistency of received CoC Documents with the accompanying CoC Material or Eligible Scrap before recording information in their Material Accounting System.

Points to consider:

- Criteria 10.2 is a consistency check: is the information in the CoC Document consistent with the supplied material or products e.g. type of material, mass?
- Once the consistency and completeness checks are complete, then the Entity should record this information in their own Material Accounting System as an input of CoC Material.
- In the case of a physical swap during transit of CoC Material where the delivery is not consistent with the order, then 10.4 applies.

10.3	The Entity shall check the ASI website on a regular basis to verify the validity and scope of the supplier's ASI CoC Certification for any changes that might affect the status of the supplied CoC Material or Eligible Scrap.

Points to consider:

- Criteria 10.3 is a verification check to ensure that the supplier's ASI CoC Certification status is valid.
- Verify that the supplier's ASI Certification is up to date and that the scope covers the type of material and/or supplying facility.
- Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
- The Entity's internal procedures could specify a mandatory check for the first shipment, and then periodically (for example, every nth shipment, or quarterly), as well as around the time of the expected renewal of the certification.
- In some situations, a supplier's Certification (Performance Standard and/or CoC) may be suspended or discontinued. The date of effect for this change of Certification status is the date of suspension, or end of the relevant Certification Period (whichever is applicable). The impact of this on the ability of the Entity to supply CoC Material will be communicated on the ASI website.
    - CoC Materials supplied **prior** to the date of effect are not affected by this change in the Entity's Certification status, as the Certification was still valid at the time in which that CoC Material was supplied. Subsequent entities in the supply chain are not expected to retrospectively 'deduct' this prior CoC Material from their material accounting systems.
    - However material supplied by the Entity from that date onwards is not supported by ASI Certification until such time as the relevant Certification/s are renewed.

10.4	If an error is discovered after CoC Material or Eligible Scrap has been received, the Entity and the supplying party shall document the error and the agreed steps taken to correct it, and implement actions to avoid a recurrence.

Points to consider:

- Criteria 10.4 for receiving parties mirrors criteria 9.6 for issuing parties.

- Here it addresses situations where checks by the receiving party identify errors. This may include inconsistent information, omission of information, changes to the supplier's Certification, or physical swaps in transit, that affects the status of supplied CoC Material.
- Any errors found by the receiver should be promptly reported to the supplying business and remedied by both parties agreeing to the steps taken to correct it. The potential for Double Counting of CoC Material must be avoided (this particularly applies to physical swaps).
- Options include:
    - A return of the shipment and voiding of the CoC Document.
    - Retaining the shipment and voiding the CoC Document.
    - A voiding of the initial document and replacement by a corrected CoC Document.
- A complete set of records covering any errors and the agreed correction must be maintained by both parties for future audit purposes.
- The cause of the error should be investigated and appropriate corrective actions identified and implemented. These should aim to address the root cause of the error/s in order to prevent future recurrences. Implementation of these corrective actions should also be reviewed for effectiveness.
- If potentially fraudulent behaviour is identified, this must be reported immediately to ASI.

Getting Started

To prepare to receive CoC Documents, businesses should:

- Review existing internal systems and where possible integrate the receiving and recording of CoC Document information.
- Identify the responsible person/s who will oversee incoming CoC Documents and carry out the necessary checks.
- Consider developing an internal procedure for how any identified errors would be addressed, so that this can be readily implemented if the situation arises.

Review:

- CoC Material received from another business must be accompanied by a CoC Document for the Material, in order to retain its CoC status.
- Procedures should be in place for the verification and recording of all required information when receiving and accepting shipments of CoC Material.
- The ASI website will maintain up to date information on the Certification status of all Entities. The status of those supplying CoC Material should be regularly reviewed.
- Changes in Certification status will not be retrospectively applied.
- Report fraudulent behaviour to ASI immediately.

11. Market Credits System: ASI Credits

Some types of Post-Casthouse businesses may find it challenging, at least initially, to build an unbroken chain of CoC Certified Entities up to and including their direct suppliers, thus limiting their access to the Mass Balance System. The Market Credits System allows ASI Aluminium from a CoC Certified Casthouse, which is not directly transferred to another CoC Certified Entity or Facility as CoC Material, to be allocated to a CoC Certified Post-Casthouse Entity as 'ASI Credits'. ASI Credits are decoupled from the physical material and thus cannot be allocated back to products or otherwise claimed as 'ASI Aluminium'. Appendix 2 of the CoC Standard contains a template for ASI Credit Certificates.

Applicability

Criteria 11.1-11.3 are applicable to Casthouses and Post-Casthouse Entities using the Market Credits System.

Supply chain activity	Applicability of CoC Standard Criteria		
	11.1	11.2	11.3
Bauxite Mining			
Alumina Refining			
Aluminium Smelting			
Aluminium Re-melting/Refining			
Casthouses			
Post-Casthouse			

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

The Market Credits System recognises that some types of Post-Casthouse businesses may find it challenging, at least initially, to build an unbroken chain of CoC Certified Entities up to and including their direct suppliers. However they may nevertheless have a desire to support the efforts of upstream companies towards ASI Certification and signal their commitment to responsible sourcing of aluminium. This is to be encouraged as part of a progressive approach.

The Market Credits System is thus included in the ASI CoC Standard as an alternative option to the Mass Balance System for these circumstances. It builds on the Mass Balance System which is the only approach that is applicable for Primary and Recycled Aluminium up to and including the Casthouse. Both systems are administrative chain of custody systems which do not require physical segregation of material flows. The Market Credits System is designed as a transition pathway into future application of the Mass Balance model as the maturity of implementation develops.

Many certification schemes offer multiple approaches to chain of custody.[15] They do so recognising, like ASI, that efforts to mainstream responsible sourcing in complex supply chains takes time. There often needs to be a

[15] For example, Roundtable for Sustainable Biomaterials (RSB) offer four CoC models: 'Identity Preserved', 'Product Segregation', 'Mass Balance' and 'Book and Claim'; Forest Stewardship Council (FSC) has three approaches to making FSC claims on outputs: 'Transfer System',

range of approaches to building demand for certification through supply chains, so that it is both accessible and effective in creating change and long-term impact.

Essentially, ASI's Market Credits System provides an ability for ASI Aluminium from a Casthouse, which is not directly transferred to another CoC Certified Entity or Facility, to be sold to a Post-Casthouse Entity as 'ASI Credits'. As ASI Credits are not connected to physical acquisition of the corresponding material, they cannot be claimed or sold by the receiving Entity as 'ASI Aluminium'. In other words, ASI Credits cannot be associated with specific products or used as a form of input to the Mass Balance System in section 8.

ASI's Market Credits System can thus provide value in two ways:

- To provide a market for Casthouses to convert excess production of ASI Aluminium into ASI Credits, where it has not been purchased or transferred directly to another CoC Certified Entity.
- To provide a market for Post-Casthouse Entities to buy ASI Credits, where they cannot physically buy ASI Aluminium directly from another CoC Certified Entity in the form they need for their own processes.

Both of the above can serve to stimulate supply of, and demand for, ASI Aluminium, thereby incentivising implementation of the ASI Performance Standard both for Primary Aluminium and Recycled Aluminium, and among Post-Casthouse Entities. Credit systems such as these are credibly used in a range of markets, including certification schemes for agricultural products such as biomaterials, palm oil and sugar, where they have driven industry investment in responsible practices and help support participation of smaller businesses who may not have direct lines of supply to producers.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

11.1	An Entity engaged in producing Casthouse Products can allocate excess ASI Aluminium to ASI Credits, where they have systems in place to ensure that: a. The amount of ASI Aluminium allocated to ASI Credits is accounted for in the Entity's Material Accounting System. b. The Entity's Material Accounting System can link unique identification numbers for the Casthouse Products from which ASI Aluminium has been allocated to ASI Credits. c. ASI Credits allocated from ASI Aluminium are not Double Counted. d. ASI Credits are allocated and issued within a Material Accounting Period. A Positive Balance of ASI Credits shall not be carried over to a subsequent Material Accounting Period.

Points to consider:

- ASI Credits can be issued under the Market Credits System. This is done by a Casthouse allocating an amount of physical ASI Aluminium to non-physical ASI Credits.
- ASI Credits are decoupled from the flow of physical material. They are transferred via an ASI Credits Certificate and are not considered to be CoC Material.
- Only Casthouse Products can be converted to ASI Credits. Building on the requirement of criteria 5.2, ASI Credits are allocated from these types of products which have unique batch or reference numbers.

'Percentage System', and 'Credit System'. Bonsucro, Fairtrade, Fairmined, Marine Stewardship Council (MSC), Roundtable for Responsible Soy (RTRS), Roundtable for Sustainable Palm Oil (RSPO), and Sustainable Agriculture Network (SAN) also all offer multiple CoC approaches.

- This means that ASI Aluminium allocated to ASI Credits is identifiable by virtue of the product identification numbers.
- It also provides control over the allocation process for traceability purposes at the Entity level and also for oversight of the ASI CoC System as a whole and over time.

- Note that an integrated Entity with Casthouse operations integrated with other Post-Casthouse facilities (such as rolling mills or extrusion plants) can sell ASI Credited as the Casthouse is eligible as per this criterion. An example of this is illustrated in Figure 18 below, which shows a Semi-Fabricator with Remelting/Refining processes that refines both CoC Material and non-CoC Material, a Casthouse that produces block ingot that is then rolled into can stock and aluminium foil for sale. As indicated in Figure 18, all facilities are within the same Certification Scope and the inputs and outputs of CoC Material and Non-CoC Material is reconciled in the Entity's Material Accounting System. The example shows that based on the sourced input materials, the Entity is able to sell up to 50 tonnes of its products (can stock and foil) as eligible CoC Material. However, as indicated in the figure, the Entity has allocated and sold 20 tonnes of it Casthouse output as ASI Credits which means only 30 tonnes of final product (can stock and foil) is available for sale as CoC Material.

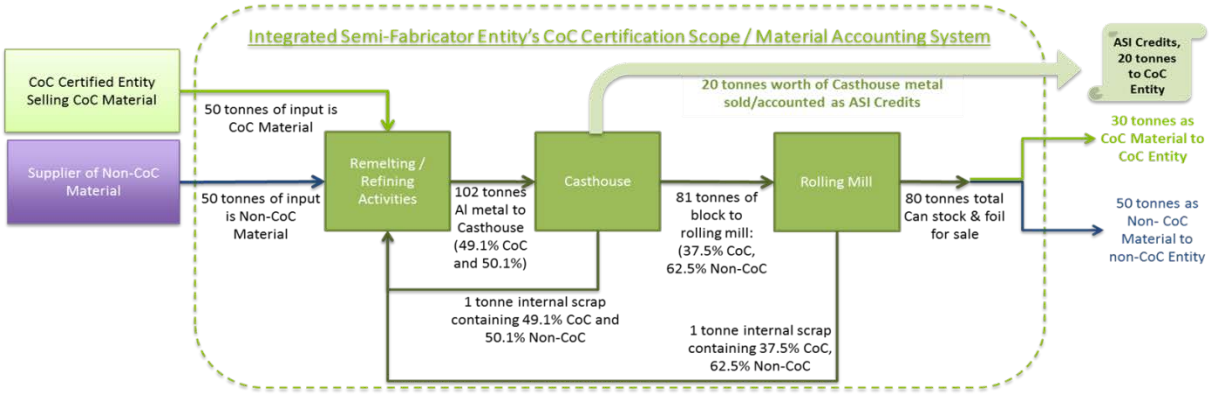


Figure 18 – Example of how an integrated Semi-Fabricator with a Casthouse issues ASI Credits for Criterion 11.1

- The conversion of ASI Aluminium to ASI Credits needs to be recorded in the Entity's Material Accounting System. This would include recording the relevant product reference numbers.
- Double counting of ASI Aluminium and ASI Credits is not allowed.
  - Double Counted is a situation, inclusive of double selling, double issuance, and double claiming, where ASI Aluminium is sold or transferred as both physical ASI Aluminium and as ASI Credits, resulting in the underlying CoC Material being counted, recorded, or claimed more than once.
- ASI Credits need to be allocated and issued within a Material Accounting Period.
  - Note that 8.11 on Positive Balances allows for CoC Material to be carried over to the subsequent Material Accounting Period, for later allocation to ASI Credits.

11.2	**Transactions of ASI Credits shall be recorded in ASI Credit Certificates shared electronically between the supplying and purchasing Entities. The Entity that issues ASI Credit Certificates shall include the following information:** **a. Date of issue of the ASI Credit Certificate.** **b. Reference number for the ASI Credit Certificate, which is linked to the Entity's Material Accounting System for verification purposes.** **c. The identity, address, contact email address and CoC Certification number of the Entity issuing the ASI Credit Certificate.**

d.	The identity, address, contact email address and CoC Certification number of the Entity receiving the ASI Credit Certificate.
e.	A statement confirming that "The information provided in the ASI Credits Certificate is in conformance with the ASI CoC Standard."
f.	A statement that "ASI Credits may not be re-traded. ASI Credits may not be allocated to physical products or otherwise claimed as ASI Aluminium."
g.	Quantity of ASI Credits.

Points to consider:

- ASI Credit Certificates are the means of transferring ASI Credits to another Entity (and a template is in Appendix 2 of the CoC Standard). Do not use CoC Documents.
- An Entity may use its own format rather than the template in Appendix 2 of the CoC Standard, providing it includes all of the required elements. An example of a completed template is below.
    - Some Entities may wish to include additional authorisation information in ASI Credit Certificates, eg a signature or e-signature, however this is not compulsory.
- The Entity's Material Accounting System needs to record an internal reference number for all ASI Credit Certificates issued.
- The receiving Entity must be CoC Certified, as they also have material accounting responsibilities.
- Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
- The Quantity of ASI Credits is the amount, in metric tonnes or similar, of ASI Aluminium that has been converted to ASI Credits in the Entity's Material Accounting System.
- Note that unlike for a CoC Document, Sustainability Data is not included with an ASI Credit Certificate because the credits have been decoupled from physical aluminium.

ASI Credits Certificate *The information provided in this Certificate is in conformance with the ASI CoC Standard.* *ASI Credits may not be re-traded. ASI Credits may not be allocated to physical products or otherwise claimed as ASI Aluminium.*			
Date of issue:	30 July 2016	Reference number:	38905840
Issuing Entity		Receiving Customer	
Name of company:	The 1886 Smelting Company	Name of company:	Earhart Aircraft
Address:	2 Hall-Heroult Avenue, Crystal Falls, QC, Canada	Address:	Lot 21, Amelia Rd, Jacksonville, FA, USA
ASI CoC Certification number:	C00037	ASI CoC Certification number:	C000107
Contact email:	asicredits@1186smelting.com	Contact email:	purchasing@earhart-aircraft.com
Quantity of ASI Credits			
2500 tonnes			

Figure 19 – example of an ASI Credits Certificate for a fictional Casthouse associated with a smelter

11.3	A Post-Casthouse Entity purchasing ASI Credits shall have systems in place to ensure that: a. ASI Credits are purchased by an Entity or Facility within the purchasing Entity's CoC Certification Scope. b. ASI Credits purchased by the Entity are accurately accounted for in the purchasing Entity's Material Accounting System and verifiable records kept of all ASI Credit Certificates. c. ASI Credits purchased within a Material Accounting Period expire at the end of that Period. A Positive Balance of purchased ASI Credits shall not be carried over to a subsequent Material Accounting Period. d. ASI Credits are not re-traded. e. ASI Credits are not allocated to physical products or otherwise claimed as ASI Aluminium. f. The validity and scope of the supplier's ASI CoC Certification is regularly verified on the ASI website for any changes that might affect its ability to issue ASI Credits. g. ASI Credits are purchased by an Entity for a maximum period of five years from their first purchase.

Points to consider:

- Only Post-Casthouse Entities are eligible to purchase ASI Credits. They need to be CoC Certified to do so, as there are applicable requirements for an appropriate Material Accounting System.
- The receiving Entity's Material Accounting System needs to keep records of all purchased ASI Credit Certificates and account for the associated ASI Credits in each Material Accounting Period.

- Purchased ASI Credits expire at the end of a Material Accounting Period, and cannot be carried over. The Positive Balance concept in criteria 8.11 does not apply to purchased ASI Credits.
    - Entities should thus consider how they set an appropriate Material Accounting Period for their business (the maximum is 12 months).
- ASI Credits only have one issuer and one purchaser, and are transferred in a single transaction.
    - ASI Credits cannot be re-traded by the purchaser.
    - They are not designed to become a tradeable instrument.
    - Their purpose is to support the responsible sourcing endeavours of Entities that cannot yet access the Mass Balance System under the CoC Standard.
- ASI Credits have been decoupled from physical aluminium. As a result, they cannot be allocated to physical products (for example, this would not be permitted: "Our 5000kg of ASI Credits has been used in our beverage cans for Shaky Creek Ale").
    - ASI Credits are only to be reported at the Entity level as an input, and not associated with an output of products or referred to as 'ASI Aluminium'.
    - Section 12 of the CoC Standard will apply to any public claims and representations about purchased ASI Credits.
- Verify that the supplier's ASI Certification is up to date and that the scope covers the supplying facility (i.e. a Casthouse). Current ASI Members and their certification status are listed on the ASI website in their membership class at: http://aluminium-stewardship.org/about-asi/current-members/
    - The Entity's internal procedures could specify a mandatory check initially, and then periodically (for example, every nth ASI Credits Certificate, or quarterly), as well as around the time of the expected renewal of the certification.
- ASI intends for Market Credits to be a transitional mechanism to support uptake of ASI standards. For this reason, use of the Market Credits model by a purchasing Entity is restricted to a five year period from the date of their first purchase of ASI Credits.
    - For example, if the first year of purchase of ASI Credits was 2018, then the Entity would be eligible to also purchase ASI Credits in 2019, 2020, 2021 and 2022 only.
    - The expectation is that during this period, the Entity should be working in parallel towards use of the Mass Balance model.

Getting Started

To issue or receive ASI Credits, Entities should:

- Make sure their Material Accounting Systems are designed to record and account for ASI Credits.
- Put in place controls for allocation and/or expiry of ASI Credits.
- For Entities that purchase ASI Credits, ensure that the ASI Claims Guide is reviewed before making any claims or representations.

Review:

- The Market Credits System is an alternative to the Mass Balance System where it is difficult for Post-Casthouse businesses to build an unbroken chain of custody for physical material.
- ASI Aluminium from a Casthouse can be allocated to ASI Credits. The original material must have product reference numbers to avoid it being double counted.
- ASI Credits are decoupled from the physical material and thus cannot be allocated back to products or otherwise claimed as 'ASI Aluminium' by the purchaser.
- ASI Credits are not designed as a tradeable instrument, and have only one issuer and one purchaser.

12. Claims and Communications

CoC Certified Entities are encouraged to communicate with their customers and consumers about their support for responsible supply chains. All marketing and communications claims or representations, beyond what is contained in CoC Documents or ASI Credits Certificates, are to be consistent with the assurance provided by the relevant ASI Standards and with the ASI Claims Guide.

Applicability

Criteria 12.1 is applicable to all Entities making claims or representations about CoC Material outside of CoC Documents and/or ASI Credits Certificates.

Supply chain activity	Applicability of CoC Standard Criteria
	12.1
Bauxite Mining	
Alumina Refining	
Aluminium Smelting	
Aluminium Re-melting/Refining	
Casthouses	
Post-Casthouse	

Code:

Criteria shaded green are generally applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

Criteria shaded orange may be applicable to those supply chain activities, where in the CoC Certification Scope of the Entity.

For more information on defining your Entity's CoC Certification Scope, see the ASI Assurance Manual.

Background

CoC Certification supports claims to customers, consumers and stakeholders about the standards and assurance behind CoC Material and associated products. Beyond CoC Documents and ASI Credits Certificates, which are designed to be business to business (B2B) tools, CoC Certified Entities are encouraged to communicate more broadly about their efforts towards responsible supply chains. For some Entities, this may include claims or communications to consumers where this is relevant and appropriate to their business.

Claims and representations, whether public/consumer-facing or B2B, usually relate to one or more of:

- The intent or mission of the standards system
- Participation in a standards system
- Compliance with a standard
- The impacts of the system
- General marketing or promotional claims [16]

Logos are the most recognisable forms of sustainability claims. For the purposes of ASI, a 'claim or representation' is documented and consists of one or more of:

- Use of an ASI logo
- Use of an ASI Certification number
- A text claim relating to ASI, which may be inside and/or alongside the logo, or standalone
- Access to further information to support the claim, such as a website link

[16] ISEAL Alliance, *Sustainability Claims Good Practice Guide*, May 2015. Accessed: www.iseal.org/claims

As claims are frequently relied upon by business partners and ultimately consumers, it is essential that they not be inaccurate or misleading. In some jurisdictions, certain terms and concepts like 'sustainable' and 'recycled' have legal restrictions associated with them when used in marketing. Claims that appear absolute or imply performance levels beyond what is actually required or assured in a standard may be accused as 'greenwash'.

ASI has a clear responsibility to control all relevant ASI-related claims to ensure they are both credible and accurate. ASI requires that all communications and marketing claims are consistent with the assurance provided by the relevant ASI Standards and with the ASI Claims Guide.

Section 12 focuses on claims or representations made by the Entity about CoC Material outside of the pre-defined format and content requirements of CoC Documents and ASI Credits Certificates.

Implementation

The 'Implementation' section provides general guidance for implementing each of the criteria in the CoC Standard. The guidance is not normative and should be seen as a starting point for information and support where required.

12.1	Where the Entity makes claims and/or representations about CoC Material outside of CoC Documents, or about ASI Credits outside of ASI Credits Certificates, the Entity shall have systems in place to ensure that: a. These are made in a manner and form consistent with the ASI Claims Guide. b. There is verifiable evidence to support the claims and/or representations made. c. Appropriate training is provided for relevant employees to properly understand and communicate the claims and/or representations.

Points to consider:

- The first step is for Entities to confirm if and where they are making additional claims or representations about CoC Material (apart from issued CoC Documents) or about ASI Credits (apart from issued ASI Credits Certificates).
- Advertising, marketing and other sales-related documentation should be reviewed to determine this.
- Examples of relevant claims or representations could include:
    - Claims about products for sale making a link to ASI Certification e.g. through written reference, use of ASI logo/s
    - Claims about specific sources of products e.g. country of origin, mines of origin, recycled material
    - Claims about specific practices for products e.g. responsible sourcing, low carbon smelting, closed loop systems
- Examples of claims and representations that are not within scope for section 12 are:
    - CoC Documents (these are covered by section 9 of the CoC Standard)
    - ASI Credits Certificates (these are covered by section 11 of the CoC Standard)
    - Claims about the place of assembly or manufacture of a product e.g. 'component made in the USA'
    - Claims about technical specifications or quality e.g. alloy specifications, reliability
    - General corporation communications, marketing themes and imagery applied at the level of an Entity or Facility that do not specifically relate to, or are not documented in direct association with, products or materials offered for sale.

- In some cases, judgement may need to be applied to determine whether a claim or representation falls within the scope of section 12, such as through the use of suggestive imagery or written descriptions that are implied but not explicit.
    - This should be determined on the basis of whether the claim would reasonably be interpreted by the purchaser as applying to the physical products, their sources and/or practices.
    - In this case, section 12 would be applicable to such claims.
- Criteria 12.1(a) requires such claims to be made in a manner and form consistent with the ASI Claims Guide.
    - Conformance with this requirement will be checked in Surveillance and Re-Certification Audits, and non-conformances could result in loss of CoC Certification or other sanctions.
    - Make sure relevant staff have a copy of the ASI Claims Guide and follow its procedures.
    - Consider how to integrate this into internal management systems to ensure appropriate review and approval of new claims and representations about CoC Material.
- Criteria 12.1(b) requires that there is verifiable evidence to support the claims and/or representations made.
    - It is very important that the claim does not state or imply information about products, their sources and/or practices that cannot be verified through documented evidence maintained by the Entity.
    - Where relevant claims rely on specific information or assurance outside of ASI Certification requirements for the Performance Standard or CoC Standard, this must be made available to the Auditor for verification.
    - When considering potential claims, ensure that the verifiability of these claims over time and in changing circumstances is taken into account.
    - Make sure internal control systems involve appropriately knowledgeable people who can review draft claims against the supporting evidence to make sure they align.
- Criteria 12.1(c) requires that appropriate training is provided for relevant employees to properly understand and communicate the claims and/or representations.
    - Consider which employees have roles that may include making claims or representations about CoC Material or ASI Certification more generally.
    - Develop internal training so that these employees are aware of the requirements of the ASI Claims Guide and are kept updated on any internal changes to the Entity's Certification status (e.g. adding new Facilities to the Entity's Certification Scope, or suspensions).

Getting Started

Make sure that you have a copy of the ASI Claims Guide! Where the Entity makes claims or representations about CoC Material beyond CoC Documents, then start with the following:

- Review claims and/or representations about CoC Material to make sure they do (or will) conform to the ASI Claims Guide. Ensure these are backed up by documented and verifiable evidence.
- Consider how the requirements for section 12 can be integrated into existing internal systems for control of marketing and communications.
- Nominate a responsible person for the approval of written claims or representations about ASI Certification and CoC Material.
- Develop training for relevant employees, such as sales associates, communications staff etc.

Review:

- Entities that make claims or representations about CoC Material or ASI Credits (outside of CoC Documents and ASI Credits Certificates) need to make sure these comply with the ASI Claims Guide.

- Relevant claims and representations would include those about products, their sources and/or practices, which have an express or implied link with ASI Certification.

Appendix 1 – Example Policy for Responsible Sourcing of Aluminium / Due Diligence

The following can be modified or adapted to suit individual businesses.

[INSERT ENTITY NAME] is a [BRIEF DESCRIPTION OF THE COMPANY].

[ENTITY NAME] is a Member of the Aluminium Stewardship Initiative (ASI). ASI is a standards-setting and certification organisation that recognises and fosters the responsible production, sourcing and stewardship of aluminium.

As an ASI Certified Member/ASI Member seeking Certification, we commit to and have/are seeking independent third-party verification that we:

- Source aluminium responsibly
- Work against corruption in all its forms
- Respect human rights in line with the UN Guiding Principles on Business and Human Rights
- Not contribute to armed conflict or human rights abuses in conflict-affected or high risk areas
- Establish processes through which stakeholders can raise concerns about the aluminium supply chain

This policy articulates our commitment to due diligence towards our suppliers in the aluminium value chain, to use our influence to prevent abuses being committed by others. We will not deal with, and will discontinue engagement with, direct suppliers where we identify a reasonable risk that they are committing, are sourcing from, or are linked to any party committing:

- Human rights abuses, including torture, cruel, inhuman or degrading treatment; forced or compulsory labour; the worst forms of child labour; war crimes; violations of international humanitarian law, crimes against humanity or genocide
- Bribery or corruption, including offering, promising, giving or demanding bribes, particularly in relation to payments to politically exposed persons for the purposes of facilitating undue advantage for extracting, trade, transport and/or export of bauxite, alumina or aluminium
- Direct or indirect support to any non-state armed groups who illegally control mine sites or transportation routes, or illegally tax or extort money at extraction, transport, trading or export of bauxite, alumina or aluminium

[The Entity could include a description of how it will consider the risks of non-compliance by its suppliers with its supply chain policy, and how it could take action to prevent or mitigate the risks.

[Also include information about the Entity's complaints mechanism for interested parties to voice concerns about sourcing / supply chain.]

Glossary

Accreditation	Recognition of an Auditor's competence to carry out audits and evaluate conformance against an ASI Standard.
Aluminium	Aluminium is a chemical element with symbol Al and atomic number 13. It is a silvery-white, soft, nonmagnetic, ductile metal. Aluminium is the third most abundant element, and the most abundant metal in the Earth's crust. It can be pure or alloyed with other metals (Mg, Si, Mn, Cu, Zn, Fe, Cr and others). In ASI documents, the raw materials used to produce the metal (bauxite ore and alumina) as well as aluminium alloys may be referred to as Aluminium in its generic meaning. ASI covers metallic aluminium and not other forms of chemical compounds that may contain aluminium.
Alumina	Aluminium oxide, which is refined from bauxite ores as an input to aluminium smelting.
Alumina Refining	The process of extracting Alumina from bauxite ore, generally by the Bayer process.
Aluminium Re-melting/Refining	Processes for recycling aluminium process scrap and used aluminium products, which may include processes to improve the quality of secondary aluminium by removing unwanted elements or impurities. In this context, Aluminium refining includes recovery and refining of aluminium from Dross and Dross residues such as slag.
Aluminium Smelting	The process of extracting aluminium from its oxide, alumina, generally by the Hall-Héroult process.
Applicable Law	The relevant international and/or national and/or state and/or local laws of the country or countries in which the Member operates. This may include, but is not restricted to, acts, regulations and statutory policies. Where a conflict arises between Applicable Law and the requirements of an ASI Standard, Applicable Law has precedence.
ASI	Aluminium Stewardship Initiative Ltd
ASI Accredited Auditor	An independent third party person or organisation meeting ASI's objective selection criteria and accredited to carry out ASI Audits.
ASI Alumina	Alumina from a CoC Certified Entity that is produced and transferred in accordance with the ASI CoC Standard.
ASI Aluminium	Aluminium from a CoC Certified Entity that is produced and transferred in accordance with the ASI CoC Standard.
ASI Bauxite	Bauxite from a CoC Certified Entity that is produced and transferred in accordance with the ASI CoC Standard.
ASI Cold Metal	ASI Aluminium used as a Cold Metal input to a Casthouse.
ASI Complaints Mechanism	Aims to ensure the fair, timely and objective resolution of complaints relating to ASI's standards setting processes, certification program, auditor conduct and ASI policies and procedures. Available at: http://aluminium-stewardship.org/asi-complaints-mechanism/
ASI Credits	Can be produced under the Market Credits System, where an amount of physical ASI Aluminium in the form of Casthouse Products is allocated to ASI Credits which become decoupled from the flow of physical material.
ASI Credits Certificate	A document that represents a virtual allocation of physical ASI Aluminium to ASI Credits, from a CoC Certified Casthouse to another CoC Certified Entity. ASI Credits Certificates are not tradeable instruments and have only one issuer and one purchaser.

ASI Liquid Metal	Liquid Metal from a CoC Certified Entity that is produced and transferred in accordance with the ASI CoC Standard.
ASI Member	An entity or group of entities that is a current member of one of ASI's six membership classes: • Production and Transformation (eligible for ASI Certification) • Industrial Users (eligible for ASI Certification) • Civil Society • Downstream Supporters • Associations • General Supporters The use of Member in the CoC Standard means an ASI Member in the 'Production and Transformation' or 'Industrial Users' classes.
ASI Standards	Includes the ASI Performance Standard and the ASI Chain of Custody (CoC) Standard.
Audit	Assessment carried out by an independent third party ASI Accredited Auditor for the purposes of confirming conformance of an ASI Member with the ASI Standard/s. Audit types include Certification Audits, Surveillance Audits and Re-Certification Audits.
Auditor	An independent, third party person or organisation meeting the ASI's objective selection criteria and accredited to carry out ASI Audits.
Bauxite	Mined ore used to produce alumina and aluminium metal. It consists largely of hydrated alumina with variable proportions of iron oxides.
Bauxite Mining	Extraction of Bauxite from the earth for commercial purposes.
Casthouse	Where molten aluminium in furnaces, usually sourced as Liquid Metal, Cold Metal and/or other alloying metals, is cast into specific Casthouse Products to meet customer specifications or supplied to a customer as Liquid Metal.
Casthouse Products	Aluminium or its alloys in forms that include ingots, slabs, bars, billets, wire rod or other speciality products and which have a physical stamp or marking on or with the product that identifies the producing Casthouse and a unique identification number.
Certified	ASI Certification that is currently valid.
Certification	An attestation issued by ASI, based on the results of a Certification Audit by an ASI Accredited Auditor, that the required level of Conformance has been achieved against the applicable ASI Standard and for the documented Certification Scope.
Chain of Custody	The documented sequence of Custody that occurs when CoC Material is transferred from one Facility and/or Entity to another along the supply chain.
CoC	Chain of Custody
CoC Certification Scope	The CoC Certification Scope sets out what parts of the Entity's business and/or Facilities are covered by the Material Accounting System for the purposes of inputs and outputs of CoC Material, including any Outsourcing Contractors if applicable.
CoC Document	Document containing the required information in section 9 of the CoC Standard. Can be a stand-alone document (a template is in Appendix 1), or integrated into the Entity's normal sales invoices or delivery documentation.
CoC Material	A collective term for ASI Bauxite, ASI Alumina, ASI Liquid Metal, ASI Cold Metal and ASI Aluminium.
CoC Standard	ASI Chain of Custody Standard
CoC Certification	Certification against the ASI Chain of Custody Standard
CoC Certified Entity	An Entity that is Certified against the ASI Chain of Custody Standard

Cold Metal	Aluminium in a cast form that is remelted to reduce the heat of Liquid Metal and/or to meet alloying specifications in the casting process in a Casthouse. This includes re-melt ingots or scrap Casthouse Products (for example, off-specification production).
Collection	Collection of process scrap and/or used aluminium products for the purposes of recycling.
Control	Control by an Entity consists of: 1. Direct or indirect majority ownership, or Control (alone or pursuant to an agreement with other entities) of 50% of more of the voting rights (or equivalent) of the Controlled business or Facility; and/or 2. Direct or indirect (including pursuant to an agreement with other entities) power to remove, nominate or appoint at least half of the members of the Board of the directors or management (or equivalent of the Controlled business or Facility); and/or 3. Day-to-day executive management of the Controlled business or Facility such as by setting workplace standards and enforcing their application; or 4. Any legally recognised concept of 'Control' analogous to those described in (1) to (2) above in a relevant jurisdiction. 5. Although the above defines 'Control' in a corporate context, the same principles will apply by analogy to other organisational arrangements, including franchisees, licensees and Control by an individual or a family, where applicable.
Custody	The physical possession of CoC Material by an Entity or Outsourcing Contractor for the purposes of production, processing and/or trading.
Double Counted	A situation, inclusive of double selling, double issuance, and double claiming, where ASI Aluminium is sold or transferred as both physical ASI Aluminium and as ASI Credits, resulting in the underlying CoC Material being counted, recorded, or claimed more than once.
Dross	A layer of intimately mixed Aluminium, Aluminium oxides and gases on the surface of molten aluminium which is generated in furnaces for Aluminium Re-melting/Refining and Casthouses. Also known as skimmings, it must be removed from the surface before the metal is cast. It is also recovered from the bottom and walls of liquid metal containers, e.g. furnaces or transport ladles or transfer channels. (Adapted from Aluminium Recycling in Europe, European Aluminium)
Due Diligence	An ongoing, proactive and reactive process through which companies can identify and assess risks, and design and implement a strategy to respond to identified risks. For the ASI CoC Standard, the key risk areas are linked to the ASI Performance Standard through the following criteria: • Anti-Corruption • Responsible Sourcing • Human Rights Due Diligence • Conflict Affected and High Risk Areas
Eligible Scrap	Post-Consumer Scrap and/or Pre-Consumer Scrap that is designated as CoC Material supplied directly from a CoC Certified Entity. Eligible Scrap is a subset of all Recyclable Scrap Material.
Entity	A business or similar which is under the ownership or Control of an ASI Member. An Entity can constitute part or whole of an ASI Member. In relation to the application of the CoC Standard, the Entity seeks or holds CoC

	Certification and is responsible for implementation of the CoC Standard in the defined CoC Certification Scope.
Facility	A Facility is a site, premises or operation that is: ▪ Under the Control of a Member; ▪ For the purposes of ASI Certification, within the documented Certification Scope. In relation to the application of the CoC Standard, a Facility is a site, premises or operation with Custody of CoC Material.
GHG	Greenhouse Gas Gaseous compounds in the atmosphere that are capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which ultimately leads to global warming. Six GHG covered by the UNFCCC are: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6). (Adapted from UNFCCC)
Industrial Users membership class	Organisations that manufacture consumer or commercial goods containing aluminium in the: aerospace, automotive, construction, consumer durables, engineering, IT, and similar sectors; and organisations in the beverage, food, pharmaceutical and similar sectors that use aluminium in packaging for their products. Industrial Users are required to seek ASI Certification for at least one of their facilities or product lines.
Input Percentage	The percentage used to determine the Output Quantity of CoC Material, and calculated by dividing the input of CoC Material by the total of input of CoC plus Non-CoC Material; or in the case of Recyclable Scrap Material, by dividing the input of Eligible Scrap by the total input of Recyclable Scrap Material.
Input Quantity	The amount (in units of mass) of CoC Material, Non-CoC Material and/or Recyclable Scrap Material as an input to a CoC Certified Entity.
Internal Overdraw	Where the Entity's Material Accounting System allows the Output Quantity to temporarily exceed the Input Quantity in a Material Accounting Period due to a force majeure situation. The Internal Overdraw must be made up in the subsequent Material Accounting Period.
Liquid Metal	Aluminium in a molten form.
Management representative	A member of senior management personnel nominated by the company to ensure that the requirements of the standard are met. (Adapted from Social Accountability International, SA8000: 2008, pg 5)
Management System	Management processes and documentation that collectively prove a systematic framework for ensuring that tasks are performed correctly, consistently and effectively to achieve the desired outcomes, and to drive continual improvement in performance. For the CoC Standard, the Entity's Management System must include a Material Accounting System.
Market Credits System	Allows a CoC Certified Casthouse to allocate its excess ASI Aluminium (produced under the Mass Balance System) to ASI Credits, which can be transferred to a CoC Certified Post-Casthouse Entity further downstream via an ASI Credits Certificate. ASI Credits are not connected to physical acquisition of the corresponding material, so cannot be claimed or sold by the receiving Entity as ASI Aluminium.
Mass Balance System	Requires each successive Entity with Custody of CoC Material to be CoC Certified, and allows for CoC Materials in an Entity's custody to be mixed with

	Non-CoC Materials over a defined Material Accounting Period, at any stage in the aluminium supply chain. The Input Percentage of CoC Material is used to calculate the Output Quantity of CoC Material. Note that the CoC Standard stipulates that the output of CoC Material cannot be allocated as 'partially CoC' – so if 20% of output is 'CoC', that 20% is 100% CoC (and not all output is "20% CoC").
Material Accounting Period	A period of time, not longer than 12 months, during which CoC Material, Eligible Scrap and/or ASI Credits inputs and outputs are accounted for and reconciled.
Material Accounting System	Part of the Entity's Management System used for controlling and accounting for the inputs and outputs of CoC Material and ASI Credits. They may be stand-alone systems or integrated with purchasing, inventory, accounting, or other systems.
Non-CoC Material	Material in the form of Bauxite, Alumina, Liquid Metal, Cold Metal and/or Aluminium that is not produced and/or transferred in accordance with the CoC Standard.
Output Quantity	The amount (in units of mass) of CoC Material or Eligible Scrap as an output from a CoC Certified Entity.
Outsourcing Contractor	An individual, company or other business that takes Custody of CoC Material from an Entity for the purpose of processing, treatment, or manufacturing the CoC Material for that Entity. Outsourcing Contractors that are not themselves CoC Certified must be included in the Entity's CoC Certification Scope.
Performance Standard	ASI's standard that defines environmental, social and governance principles and criteria, with the aim to address sustainability issues relevant to the production and material stewardship of aluminium, from the extraction of bauxite to the production of commercial and consumer goods, and the recycling of pre- and post-consumer aluminium scrap.
Positive Balance	The net difference where an Entity's Material Accounting System records that an Entity's total CoC Material and/or Eligible Scrap inputs are higher than the Entity's total CoC Material and/or ASI Credits outputs transferred to another Entity at the end of a Material Accounting Period.
Post-Casthouse Entity	An Entity that carries out further processing, treatment or manufacturing of Aluminium subsequent to the production of Casthouse Products. This includes Entities engaged in semi-fabrication, material conversion, manufacturing, further production, assembly, fabrication and/or construction.
Post-Consumer Scrap	Material containing Aluminium that is reclaimed from a consumer or commercial product that has been used for its intended purpose by individuals, households or commercial, industrial and institutional facilities as end-users of the product which can no longer be used for its intended purpose (Adapted from ISO 14021:2016).
Pre-Consumer Scrap	Material containing Aluminium that is diverted from the waste stream from a manufacturing process or similar, in which the material has not been intentionally produced, is unfit for end use and not capable of being reclaimed within the same process that generated it. (Adapted from ISO14021:2016)
Primary Aluminium	Aluminium produced from bauxite ore, through refining to produce alumina, then smelting to produce aluminium.
Production and Transformation membership class	Organisations with activities in one or more of: bauxite mining, alumina refining, aluminium smelting, aluminium re-melting/refining, semi-fabrication and/or material conversion. Production and Transformation members are

	required to seek ASI Certification for at least one of their facilities or product lines.
Recyclable Scrap Material	Pre-Consumer Scrap and Post-Consumer Scrap in any form.
Recycled Aluminium	Aluminium produced from processes such as re-melting (to produce Liquid Metal) and aluminium refining (which removes unwanted elements or impurities for aluminium). Recycled Aluminium is also known as secondary aluminium.
Responsible Mining Standard	A third party standard for responsible mining practices deemed by ASI, through a process of formal review and opportunity for stakeholder comment, to be comparable to the ASI Performance Standard. Information will be maintained at www.aluminium-stewardship.org
Semi-Fabrication	Rolling or extrusion of Casthouse Products, as an intermediate processing stage for subsequent Material Conversion and/or further downstream processing and manufacturing of finished products. Examples of semi-fabricated products include sheet, foil, and can stock; extruded rod, bar, shapes, pipe and tube; and other mill products such as drawing stock, wire, powder and paste.
Supplementary Information	Additional information that can be included in CoC Documents, such as: identify CoC Material shipped via third parties; to provide reference to additional certifications or accreditations beyond ASI Certification applying to the CoC Material or supplying Entity; additional claims about origin, source or practices in the supply chain; or other general information via website links.
Sustainability Data	Data that can be included in CoC Documents that supports the social, environmental and/or economic benefits of ASI Aluminium. Version 1 of the CoC Standard focuses on GHG emissions and Certification status of Post-Casthouse Entities.

Aluminium Stewardship Initiative

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