



ResponsibleSteel International Standard

Version 2.0

14 September 2022

About this document

This document is the ResponsibleSteel International Standard version 2.0, effective from 14 September 2022. The version 1.0 was drafted in accordance with the ResponsibleSteel Standard Development Procedure from February 2017 through to October 2019, approved by a ballot of the ResponsibleSteel membership and formally ratified by the ResponsibleSteel Board of Directors in November 2019. The version 1.1 was published in June 2021 with updates after the first audits of the Standard.

Version 2.0 has been updated from version 1.1 to incorporate additional requirements on responsible sourcing and GHG emissions. Additional requirements on responsible sourcing and GHG emissions are now incorporated in Principle 3 and Principle 10, respectively. The Glossary is also updated to reflect the additional terminologies to facilitate the understanding of the additional requirements. More information can be found below:

For further information about the standard development procedure, its timeline and decision-making process, please refer to the ResponsibleSteel website at www.responsiblesteel.org/standard-development/.

Please visit <https://www.responsiblesteel.org/certification/> for information on the audit and certification process.

Version history

No.	Date	Description
Version 1.0	5 November 2019	First published version of the ratified ResponsibleSteel Standard
Version 1.1	23 June 2021	<p>Included urgent revisions to 8.4.5 and 8.5.1.</p> <p>Added interpretations to 4.9.1. / 4.9.3. and 9.1.</p> <p>Added guidance to 1.1 / 1.2 / 7.3 / 8.4.2. and 9.1.2.</p> <p>Corrected typographical errors found in version 1.0.</p> <p>Changed some terms to reflect further development of the ResponsibleSteel programme:</p> <ul style="list-style-type: none">• Renamed auditing bodies to certification bodies• Renamed Review Panel to Assurance Panel• Noted that additional responsible sourcing and GHG requirements will be finalised in 2021. <p>Version 1.1 is for immediate use and supersedes version 1.0.</p> <p>Kindly notes the numbering in this paragraph refers to numbering of Standard version 1.1.</p>
Version 2.0	14 September 2022	<p>Included additional requirements on responsible sourcing (New Principle 3) and GHG emissions (renumbered Principle 10).</p> <p>Renumbered Principles in Version 2.0 (see Introduction Section).</p>

Disclaimer

The official language of this Standard is English. The definitive version is held on the ResponsibleSteel website <https://www.responsiblesteel.org/standard>. Any discrepancy between copies, versions or translations shall be resolved by reference to the definitive English version.

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Background on ResponsibleSteel

Steel is the world's largest materials industry. Steel is essential to almost every aspect of modern life, but it also brings unique sustainability challenges. Discussions on addressing these challenges led to the formal establishment of ResponsibleSteel in 2016.

ResponsibleSteel is an international, non-profit multi-stakeholder membership organisation. Businesses from every part of the steel supply chain, civil society groups, associations, and other organisations with an interest in a sustainable steel industry from anywhere in the world are welcome to join.

ResponsibleSteel's vision is that steel's contribution to a sustainable society is maximised. Its mission is to enhance the responsible sourcing, production, use and recycling of steel by:

- Providing a multi-stakeholder forum to build trust and achieve consensus;
- Developing standards, certification and related tools;
- Driving positive change through the recognition and use of responsible steel.

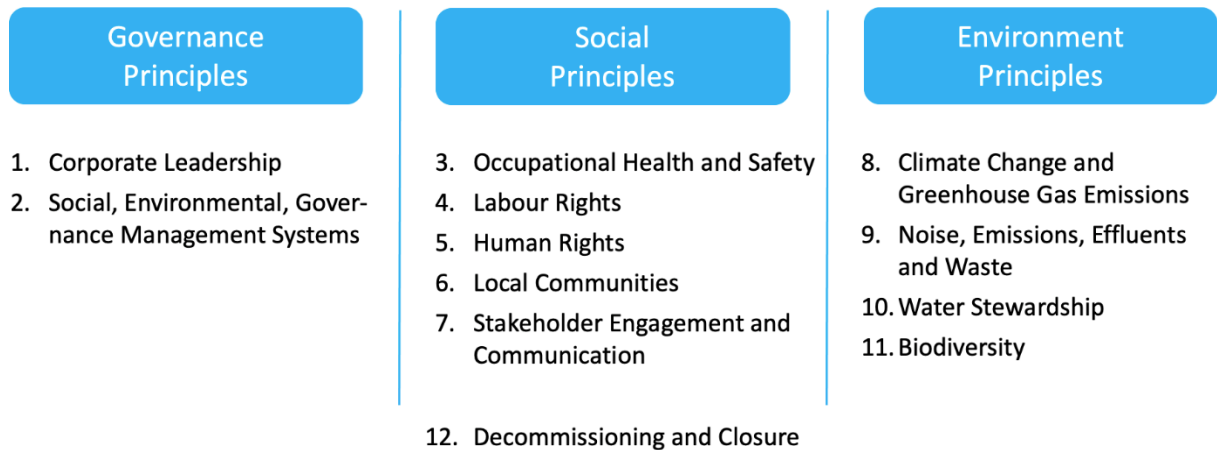
The ResponsibleSteel Standard is designed to support the responsible sourcing and production of steel, as a tool for the achievement of ResponsibleSteel's vision.

For further information, please see <https://www.responsiblesteel.org/>.

Overview of the ResponsibleSteel Standard

1. The Standard

In November 2019, [version 1.0 of the ResponsibleSteel Standard](#) was approved and ratified by our membership and Board. The Standard is structured on 12 Principles with 370 associated requirements. Sites that are certified against the Standard are able to claim that their site is operated in a responsible manner and can promote themselves using the ResponsibleSteel 'Certified Site' logo. The 12 Principles for 'Certified Site' are shown on the following figure:



In June 2021, ResponsibleSteel members voted on some amendments to version 1.0 relating to Principle 8, resulting in the adoption of version 1.1.

The first version of the ResponsibleSteel Standard includes some requirements for the sourcing of input materials (then referred to as raw materials) under Criteria 1.1 and 2.2. The input materials requirements ask for a high-level commitment to responsible sourcing and for evidence that this commitment is being implemented. However, the requirements do not provide incentives for steel companies and their suppliers to work towards high levels of ESG performance in their supply chains.

The Standard also specifies requirements under Principle 8 in relation to greenhouse gas (GHG) emissions. Principle 8 requires company- as well as site-level strategies, plans and targets to be in place for the reduction of GHG emissions, aligned with the goals of The Paris Agreement¹. It also requires that steel companies and sites report on their GHG emissions performance. However, it does not set performance thresholds for the current level of GHG emissions from the site or require disclosure of the GHG emissions associated with steel products produced at the site.

The ResponsibleSteel membership and Board agreed in 2019 that additional requirements in relation to these two critical issues - the responsible sourcing of input materials and performance thresholds for GHG emissions - would need to be met in order for sites to market their steel as ResponsibleSteel certified steel – referred to as 'Certified Steel'.

¹ [Paris Agreement](#) to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104

The process for developing these additional requirements started in 2020 with preliminary proposals being presented to the membership and Board for review and comment. Fully developed sets of draft proposals were published for a formal 60-day public stakeholder consultation in August and September 2020. All comments were reviewed by the ResponsibleSteel Secretariat and revised draft proposals were published for a second 60-day public stakeholder consultation in April 2021.

Between June and December 2021, the ResponsibleSteel Secretariat reviewed the comments received from the second public stakeholder consultation, and engaged in detailed discussions with ResponsibleSteel members and stakeholders to develop the draft proposals further. Consultations continued through to 30 March 2022, and draft 2.2 of the requirements were circulated to the ResponsibleSteel membership for review and comment from 1st April through to 27th May 2022. This version 3.0 incorporates proposed changes in response to that feedback and is now approved by a ballot of the ResponsibleSteel membership and formally ratified by the ResponsibleSteel Board of Directors in August 2022.

These additional requirements for ‘Certified Steel’ are now combined with the [ResponsibleSteel Standard Version 1.1](#), which is re-issued as the ResponsibleSteel Standard version 2.0. The new requirements for GHG emissions are added to the current Principle 8 and renumbered in this Standard version 2.0 as Principle 10. The new requirements for the responsible sourcing of input materials are incorporated as a new Principle 3. In consequence, the current Principles 3 to 12 will be renumbered 4 to 13, as shown below:

Governance Principles	Social Principles	Environment Principles
<ol style="list-style-type: none"> 1. Corporate Leadership 2. Social, Environmental, Governance Management Systems 3. NEW: Responsible Sourcing 4. Decommissioning and Closure 	<ol style="list-style-type: none"> 5. Occupational Health and Safety 6. Labour Rights 7. Human Rights 8. Local Communities 9. Stakeholder Engagement and Communication 	<ol style="list-style-type: none"> 10. Climate Change and Greenhouse Gas Emissions 11. Noise, Emissions, Effluents and Waste 12. Water Stewardship 13. Biodiversity

* Note that the Decommissioning and Closure Principle has been assigned to the Governance pillar of the ResponsibleSteel Standard and is now Principle 4 instead of 12.

Terms and key concepts for which additional definitions have been provided here will be incorporated into the existing [Glossary](#), which can be found on the ResponsibleSteel website. Its use is mandatory and ensures consistent understanding and interpretation of key terms and concepts.

The ResponsibleSteel Standard Version 2.0 will be the basis for both ‘Certified Site’ and ‘Certified Steel’ certification. For ‘Certified Site’, the existing 12 Principles must be met. For ‘Certified Steel’, the additional requirements specified in the new Principle 3 (Responsible Sourcing of Input Materials), together with the additional requirements specified in the

renumbered Principle 10 (Climate Change and GHG Emissions), will have to be met in addition.

ResponsibleSteel is including a 12-month ‘test phase’ for certain areas of the new requirements where testing seems important to ensure that the requirements are fit for purpose. The areas that will be covered by the 12-month test phase are marked accordingly in this document. If the test phase shows that changes are necessary, additional stakeholder consultation on those requirements will be conducted. Where these changes are deemed significant, they will be subject to membership voting. ‘Certified Steel’ certificates will still be issued during the test phase and will be valid for three years. If significant changes are made to the requirements following the test phase, sites that have already been certified will be granted a transition period to meet any revised requirements. The existing ResponsibleSteel Standard is scheduled for a formal review in 2023. The new requirements for responsible sourcing and GHG will be reviewed at the same time to align future review cycles.

The proposed requirements specify four performance levels – referred to as ‘level 1’, ‘level 2’, ‘level 3’ and ‘level 4’, for both GHG emissions performance, and for progress on the responsible sourcing of input materials. These performance levels are designed to allow downstream users and specifiers to distinguish between products depending on the GHG emissions intensity of the crude steel from which they are produced and depending on the ESG performance of suppliers to steel companies. Level 1 is the ‘entry’ level, Level 4 the hardest to obtain.

Next steps

Now that the requirement for ‘Certified Steel’ have been approved, ResponsibleSteel will focus on developing the requirements to include downstream supply chains in the ResponsibleSteel certification programme through the development of a ‘downstream chain of custody’ standard, together with the requirements for claims that may be made in relation to ResponsibleSteel ‘Certified Steel’ and ‘Certified Sites’.

Steel sites that achieve ‘Certified Steel’ certification are required to follow ResponsibleSteel guidance regarding claims, logos and labels. This guidance on claims, logos and labels is under development and will be subject to consultation with ResponsibleSteel members. Until this time, no claims regarding ResponsibleSteel ‘Certified Steel’ may be made.

The objective of the ResponsibleSteel Standard is to support the responsible sourcing and production of steel, as a tool for the achievement of ResponsibleSteel’s vision: to maximise steel’s contribution to a sustainable society.

In order to achieve this objective, the ResponsibleSteel Standard aims to:

- a. Define the fundamental elements that characterise the responsible sourcing and production of steel, to the satisfaction of downstream customers, users and civil society supporters;
- b. Define levels of performance in the implementation of these fundamental elements that:
 - Encourage the broad participation of steelmakers in both developed and developing countries in the ResponsibleSteel programme;
 - Merit the recognition and endorsement of the programme’s civil society supporters;

- Maximise steel's contribution to a sustainable society through the responsible sourcing of its raw materials and management of the impacts of its production.

The full terms of reference for development of the Standard are shown in Annex 1.

2. The Principles

The ResponsibleSteel Standard consists of thirteen Principles for the responsible sourcing and production of steel:

Principle 1. Corporate Leadership

ResponsibleSteel certified sites are led responsibly.

Principle 2. Social, Environmental and Governance Management Systems

ResponsibleSteel certified sites have an effective management system in place to achieve the social, environmental and governance objectives to which they are committed.

Principle 3. Responsible Sourcing

ResponsibleSteel certified sites increasingly source input materials from suppliers that are working to improve their environmental, social and governance (ESG) performance and address ESG risks.

Principle 4. Decommissioning and Closure

ResponsibleSteel certified sites minimise the adverse social, economic and environmental impacts of full or partial site decommissioning and closure.

Principle 5. Occupational Health and Safety

ResponsibleSteel certified sites protect the health and safety of workers.

Principle 6. Labour Rights

ResponsibleSteel certified sites respect the rights of workers and support worker well-being.

Principle 7. Human Rights

ResponsibleSteel certified sites respect human rights wherever they operate, irrespective of their size or structure.

Principle 8. Stakeholder Engagement and Communication

ResponsibleSteel certified sites engage effectively with stakeholders, report openly on issues of importance to stakeholders, and remediate adverse impacts they have caused or contributed to.

Principle 9. Local Communities

ResponsibleSteel certified sites respect the rights and interests of local communities, avoid and minimise adverse impact and support community well-being.

Principle 10. Climate Change and Greenhouse Gas Emissions

The corporate owners of ResponsibleSteel certified sites are committed to the global goals of the Paris Agreement, and both certified sites and their corporate owners are taking the actions needed to demonstrate this commitment.

Principle 11. Noise, Emissions, Effluents and Waste

ResponsibleSteel certified sites prevent and reduce emissions and effluents that have adverse effects on communities or the environment, manage waste according to the waste management hierarchy and take account of the full life cycle impacts of waste management options.

Principle 12. Water Stewardship

ResponsibleSteel certified sites demonstrate good water stewardship.

Principle 13. Biodiversity

ResponsibleSteel certified sites protect and conserve biodiversity.

3. Scope of application

This ResponsibleSteel Standard applies to operational steel sites and to related sites that process raw materials for steelmaking, or that produce steel products². It does not apply to service providers, mine sites, or to sites producing final products³ made with steel components.

'Site' refers to the physical site under management or control. A single site may consist of multiple processing facilities and related plants for the integrated production of steel, including, for example coke ovens, sinter or pellet plants, furnaces, rolling mills and coating facilities, or may consist of freestanding facilities for the production of specific raw materials for steelmaking such as coke or pig iron, or a free-standing rolling mill. In all cases, the specific scope and boundaries for auditing will be defined at the time of applying for certification, and the Requirements of the Standard will be applicable to all the facilities within the site. Additional detail on the scope of application is provided in the ResponsibleSteel Assurance Manual.

This version of the Standard does not specify Requirements applicable to transportation of the site's raw materials, or to the transportation of its products.

Some of the Standard's Requirements specify actions or reporting that are implemented by the site's corporate owners. A site's commitment to achieve ResponsibleSteel certification also has implications for its suppliers of raw material, through procurement, and for some service providers, for example in relation to recruitment and employment agencies (under

² Steel product: Product produced from steel and shipped out from steelworks. Examples: Hot rolled steel, pickled hot rolled steel, cold rolled steel, finished cold rolled steel, electrogalvanized steel, hot-dip galvanized steel, tin-free steel, tinplated steel, organic coated steel, section, plate, rebar, engineering steel, wire rod, seamless pipe, UO pipe, welded pipe (Adopted from ISO20915:2018(en) Life cycle inventory calculation methodology for steel products).

³ Final product: Product that requires no additional transformation prior to its use. Examples: Automobiles, building structures, building envelopes, packaging (Adopted from ISO 20915:2018(en) Life cycle inventory calculation methodology for steel products).

Principles 6 (Labour Rights) and 5 (Occupational Health and Safety), and energy and water suppliers (under Principles 10 (Climate Change and Greenhouse Gas Emissions) and 12 (Water Stewardship)).

Overarching policies, procedures, codes of conduct, etc. may be set at the corporate owner or 'group' level, rather than separately by the individual sites seeking certification. In such cases, auditors will evaluate whether the policy, procedure, code of conduct, etc. is accessible, known, understood and effectively implemented at the site level. Sites must be able to demonstrate to their auditors that this is the case, but are not required to develop their own policies, etc. at the site level. Where data is collected or records are kept at the corporate owner or 'group' level, the site must be able to provide the auditors with access to those data or records.

In principle, all Requirements of the Standard apply to all sites. In some cases though, specific Requirements, Criteria or an entire Principle might not be relevant at a particular site. This might apply, for example, in the case of Principle 4 if no site decommissioning or closure has been announced. Criterion 2.1 specifies that sites must review all ResponsibleSteel Requirements to identify those that they do not consider to be relevant, and to explain the basis for their determination. The justifications will be reviewed by the site's auditors and will be included in the final audit report summary submitted to ResponsibleSteel. If a Requirement has been wrongly excluded, a certificate will not be issued.

4. Test Phase

The ResponsibleSteel additional requirements on GHG emissions will go through a 12-month test phase. The test phase applies to elements of 10.4.5, 10.4.7 and Annex 2 to the Additional Requirements on GHG emissions; 3.2, 3.4, 3.7 and Annex 1 to the additional requirements on responsible sourcing – these are highlighted in this document.

During this period, the ResponsibleSteel Secretariat will be open to engaging with members to learn from early implementation experiences of those elements and use inputs from the test phase to revise and improve these requirements. Different mechanisms are in place to support this process:

- Members can always provide feedback to the Secretariat [this form](#), [this template](#), or through emails and calls through various channels (see here). The feedback will be reviewed on an ongoing basis to make sure the requirements are fit for purpose and the intent of the requirements is clear.
- The Secretariat will use this feedback to provide clarifications and interpretations on a regular basis to support the implementation of the additional requirements.
- Where there is a strong case that substantial changes are urgently required, an urgent revision process can be activated, following our Standard Development Procedure.

When a certified site has successfully been audited against the additional requirements, it will earn 'certified steel' certification. A site that is not yet a certified site can choose to be audited against the existing requirements (Standard version 1.1) and the additional requirements at the same time to earn 'certified steel' certification.

5. Certification

Each of the thirteen ResponsibleSteel Principles is the basis for a number of Criteria and underlying Requirements. Conformity with the ResponsibleSteel Standard is audited at the level of the Requirements specified for each Criterion. For a site to achieve and maintain certification there must be no major non-conformities with any Requirement. Minor non-conformities do not preclude certification but must be corrected.

The resources on ResponsibleSteel [website](#) provide guidance on the Standard's Requirements to site managers, auditors and other stakeholders. They help to correctly interpret the intent of the Requirements and contain expectations related to conformity and the demonstration of conformity. These resources clarify where a site must follow the guidance if it is to achieve conformity with a specified Requirement. They also include examples of good practice so that sites that follow the provided guidance can be confident that they are implementing the Standard correctly. These resources are working documents and will be added to as experience with auditing against the Standard builds up over time.

Audits are carried out by independent third-party certification bodies approved by ResponsibleSteel and contracted by the site applying for certification. Certification bodies submit a formal audit report to ResponsibleSteel. An independent Assurance Panel, appointed by ResponsibleSteel, reviews the audit report and certification recommendation before certification decision-making can be initiated by the certification body and a certificate can be issued where applicable.

The ResponsibleSteel Standard sets a benchmark for the responsible sourcing and production of steel that has been agreed through a perennial multi-stakeholder process involving business and civil society. While the ResponsibleSteel Standard adopts elements from other relevant standards, guidelines and conventions, it goes beyond them where stakeholders agreed that this was necessary to drive good practice within the steel sector globally. At the same time, the ResponsibleSteel Standard is not as detailed as some of the single-issue standards, guidelines and conventions that it draws from as it covers thirteen Principles and is tailored to the steel sector.

Where sites are certified as conforming with other standards (for example ISO 9001, 14001 or 45001) whose requirements overlap with the Requirements of the ResponsibleSteel Standard, auditors may use the findings from these other audits to support their assessment of conformity with the relevant ResponsibleSteel Requirement, as described in the ResponsibleSteel Assurance Manual.

The ResponsibleSteel Standard is an international standard. The Requirements specified in the Standard go beyond minimum legal requirements in many countries. Conformity with the Standard is voluntary, and is intended to identify and reward steelmakers' contributions to a sustainable society. The ResponsibleSteel Standard does not take priority over a site's legal obligations. If there is a direct conflict between ResponsibleSteel Requirements and a site's legal obligations, the legal obligations must prevail, although this may preclude a site from achieving certification.

Further details of the ResponsibleSteel assurance system and procedures are specified in the ResponsibleSteel Assurance Manual.

6. Review and Revision

The ResponsibleSteel Standard Development Procedures includes sections covering:

- Concerns and Complaints
- Comments after Approval
- Urgent Revisions
- Administrative and Non-Substantive Changes
- Clarifications and Interpretations
- Regular Review and Revision

The procedures specify that the Standard must be considered for revision within a maximum of five years from the date of approval. This first version of the Standard will be reviewed and is expected to be revised within three years.

Please note that we aim to start the Standard Revision Process in January 2023. This process will take into account all comments received in the Issues Log after the standard is adopted and involve the full consultation process outlined in Section 3 of our Standard Development Procedure. In this process, we may have different technical working groups to focus on specific topics.

For further details, please see the ResponsibleSteel Standard Development Procedures at

<https://www.responsiblesteel.org/resources/>.



ResponsibleSteel Standard

Version 2.0

Principles, Criteria and Requirements

Principle 1. Corporate Leadership

Objective:

ResponsibleSteel certified sites are led responsibly.

Background:

Customers, investors, employees and other stakeholders increasingly expect companies to demonstrate that they are responsible corporate citizens, avoiding undesired impacts on societies and the environment in their areas of influence. ResponsibleSteel's first Principle lays the foundation for responsible business conduct. It focusses on the need for clear, consistent corporate leadership: the corporate values, policies and commitments that are made at the highest level of an organisation, that define the organisation's culture, and that then drive the adoption of responsible practices throughout the organisation's management and operations. Compliance with applicable laws and regulations and combatting corruption are further elements building that foundation and are covered in the Corporate Leadership Principle. The Standard then requires that these commitments and foundational elements are anchored with the board and senior management of the site wishing to become certified.

Criterion 1.1: Corporate Values and Commitments

The site's corporate owners have defined and documented the values and policies for responsible business conduct to which they are committed.

1.1.1. The site's corporate owners have defined and documented the values, policies and commitments that they require sites under their control to implement, including at least the following:

- a) A commitment to support the achievement of the ResponsibleSteel Vision and Mission (2018);
- b) A code of ethical conduct or similar instrument;
- c) A commitment to comply with all applicable laws, regulations and formal agreements in the countries in which they operate;
- d) An anti-corruption policy that:
 - Addresses the management of conflicts of interest and political and charitable contributions;
 - Prohibits extortion, embezzlement, bribery, facilitation payments and money laundering;
 - Grants protection to employees from demotion, penalty or other adverse consequences for refusing to participate in corruption, even if such refusal may result in the site losing business.
- e) A responsible sourcing policy that includes a commitment to source raw materials from suppliers whose policies

and practices support the implementation of the ResponsibleSteel Principles and Criteria as applicable to the sourcing of raw materials.

1.1.2. The values, policies and commitments to which the corporate owners are committed to are effectively communicated to the site's workers, and are readily accessible to the public.

Guidance:

Note that underlined terms are explained in the Glossary, which is included in the Implementation Instructions, and that these explanations are normative.

Overarching policies, procedures, codes of conduct, etc. may be set at the corporate owner or 'group' level, rather than separately by the individual sites seeking certification. In such cases, auditors will evaluate whether the policy, procedure, code of conduct, etc. is accessible, known, understood and effectively implemented at the site level. Sites must be able to demonstrate to their auditors that this is the case, but are not required to develop their own policies at the site level.

A Policy is a "Formal statement of intentions and direction of an organisation as formally expressed by its top management. A policy may be an integrated policy or consist of various stand-alone policies." (see the ResponsibleSteel Glossary on <https://www.responsiblesteel.org/certification/certification-resources/>). Alternatively, a policy statement may be part of another formally approved document, such as a code of conduct or internal standard, if that formally approved document meets the ResponsibleSteel requirements.

Publication of commitments in a company's annual report or in a 'corporate social responsibility' report would be evidence of implementation of 1.1.1.

The ETI (Ethical Trading Initiative) Base Code, ISO 26000 - Social responsibility, or the Caux Moral Capitalism Principles are examples of frameworks that might help sites define or review their code of conduct.

ISO 20400: (2017) Sustainable procurement – Guidance might help with the implementation of sustainable procurement practices.

Criterion 1.2: Leadership and Accountability

Responsibility for ensuring that the values, policies and commitments defined by the corporate owner are implemented at site level is assigned to the site's directors and senior management.

1.2.1. Responsibility for oversight of the implementation of the values, policies and commitments defined by the corporate owner has been assigned to individual members of the site's board of directors or an equivalent oversight body.

1.2.2. Responsibility for implementing the values, policies and commitments defined by the corporate owner has been assigned to specific members of senior management.

1.2.3. There is an effective process in place to monitor how well the values, policies and commitments defined by the corporate owner are implemented in practice. Where gaps become evident between the values, policies and commitments and actual business practice and behaviour, the site identifies the root causes and defines and implements actions to address those causes.

1.2.4. Effective procedures are in place for the site's senior management to report to the site's board of directors or equivalent oversight body on a regular basis on the implementation of the company's values, policies and commitments.

1.2.5. There is evidence that the members of the site's board of directors or equivalent oversight body exercise effective oversight of the implementation of the values, policies and commitments defined by the corporate owner.

Guidance:

Note that **members of senior management** that are responsible for implementing the values, policies and commitments might be based at the corporate owner or at other parts of the company, they do not have to be based at the site seeking certification.

Linking senior management compensation to effective implementation of the values, policies and commitments is one way of strengthening accountability and considered good practice.

Board of directors or an equivalent oversight body: Where senior management is the site's highest level of authority, the reporting and oversight requirements of 1.2 are satisfied at senior management level.

Principle 2. Social, Environmental and Governance Management Systems

Objective:

ResponsibleSteel certified sites have an effective management system in place to achieve the social, environmental and governance objectives to which they are committed.

Background:

An effective management system identifies a site's management objectives, ensures that there are policies and procedures in place to achieve those objectives, and requires that performance is measured and monitored over time. Most well-managed steel sites already implement formal management systems covering key social, environmental and governance objectives, based on recognised international standards. The ResponsibleSteel Standard specifies the existence of such systems as a Requirement and also demands that sites ensure that their management systems cover all the applicable Requirements of the ResponsibleSteel Standard. The management system of a site may be an integrated management system or consist of various stand-alone management systems.

The ResponsibleSteel Standard aims to avoid repeating the details of internationally recognised management system standards, but includes some Requirements to verify their effectiveness, for example in relation to worker training.

Criterion 2.1: Management System

The site is operated in accordance with a documented management system that incorporates all applicable social, environmental and governance Requirements of the ResponsibleSteel Standard.

2.1.1. The site has reviewed the ResponsibleSteel Standard to determine whether any of its Requirements are not applicable to the site seeking certification. There is a record of any Requirements that are deemed not to be applicable, and of the basis for such determination.

2.1.2. The site has a documented and effective management system or systems in place that:

- a) Identify the site's main social, environmental and governance risks and adverse impacts and includes management provisions to prevent and mitigate these impacts;
- b) Include provisions to monitor and achieve compliance with all applicable Requirements of the ResponsibleSteel Standard;
- c) Incorporate key performance indicators for the site's main social, environmental and governance risk and impact areas.

2.1.3. The site's system for the management of environmental aspects is certified by a competent third party as

complying with the requirements of ISO 14001: Environmental management systems – Requirements with guidance for use.

Guidance:

Requirements not applicable to the site seeking certification do not have to be considered further. This might apply, for example, in the case of Principle 4 if no site decommissioning or closure has been announced. The basis for the site's determination that certain Requirements are not applicable to its site will be reviewed and verified by the auditors during the assessment of the site against the ResponsibleSteel Standard.

The **site's management systems** may be integrated to form a single overarching management system or may consist of various stand-alone management systems. Examples for recognised international management system standards that the site may use to manage its social and governance aspects and risks include ISO 9001, ISO 37001, ISO 45001 (replacing OHSAS 18001), ISO 50001, and SA8000.

Sites must take account of the concerns of stakeholders when identifying social, environmental and governance risks and impacts, and in defining prevention and mitigation measures.

Management system provisions: Note that these provisions do not necessarily have to be developed specifically for the purpose of compliance with the ResponsibleSteel Standard. Existing systems, processes and other relevant certifications may contribute to achieving ResponsibleSteel compliance.

Examples of key performance indicators for social, environmental and governance risk and impact areas are:

- Risk of corruption: Number of employees with anti-corruption training
- Risk of community grievances due to air emissions: Number and outcomes of community meetings, progress against air emissions reduction plan.

Since each site is different from other sites regarding its risks and impacts, the key performance indicators should be tailored to the respective site.

Criterion 2.2: Responsible Sourcing

There are effective procedures in place to ensure that the responsible sourcing commitments of the site's corporate owner are implemented for the site's own procurement.

2.2.1. There are effective procedures in place to implement the corporate owner's policy commitment to responsible sourcing (see Requirement 1.1.1.e) at the site. Procedures include at least the following elements:

- a) The corporate owner's commitment to responsible sourcing is communicated to the site's tier 1 suppliers of key raw materials;
- b) There are documented procurement specifications that implement the corporate owner's commitment to

responsible sourcing as applicable to the site;

- c) Tier 1 suppliers of key raw materials to the site are required to document their own responsible sourcing commitments (if any) and to make these available to the personnel responsible for the site's procurement.

2.2.2. The site has access to a listing of its tier 1 suppliers and to copies of their commitments to responsible conduct or responsible sourcing. If the supplier does not have such a commitment this is recorded.

2.2.3. Key performance indicators for the personnel responsible for the site's procurement of raw materials have been specified and are aligned with the corporate owner's commitment to responsible sourcing.

Guidance:

The Requirements recognise that the responsible sourcing policy and procedures may be implemented at corporate or group level or by another department that may operate from an off-site location. The fundamental Requirement is that the procedures must apply to the site's procurement, must be effective, and can be audited as such.

The **site's corporate sourcing policy** must, as a minimum, cover the sourcing of the key raw materials listed in Annex 2 where these materials are used by the site. The site's corporate sourcing policy may apply beyond the tier 1 suppliers of key raw materials. Where this is the case, the site's procedures should reflect this.

Where tier 1 suppliers do not have their own policy on responsible conduct or responsible sourcing, this would be recorded. This would not of itself be a non-compliance for the site. However, the absence of a responsible sourcing policy by a tier 1 supplier does not support the implementation of the corporate commitment required under 1.1.1.e, so the auditor would expect to see action being taken over time to discontinue sourcing from such suppliers.

Note that **additional Requirements in relation to the site's responsible sourcing** are developed by ResponsibleSteel, in consultation with its members and other stakeholders, and will be finalised in 2020. These additional requirements are incorporated into Principle 3 of the Standard version 2.0. Achieving these additional Requirements will allow sites to make stronger claims about their performance and, in particular, about the steel produced at the site. ResponsibleSteel anticipates that downstream customers, civil society, financial institutions and other stakeholders will increasingly demand that steel companies achieve this higher level of performance.

Criterion 2.3: Legal compliance and signatory obligations

The site has effective procedures in place to ensure that it complies with applicable law and operates in consistence with formal agreements it is committed to meet.

2.3.1. The site implements documented procedures for:

- a) Identifying and understanding its legal obligations and, where applicable, its obligations as a signatory to formal agreements;
- b) Integrating legal and signatory obligations into the site's processes and activities;
- c) Monitoring site compliance with legal and signatory obligations;
- d) Monitoring legal developments and identifying evolving areas of legal risk.

2.3.2. The site carries out regular legal compliance evaluations. In case of potentially non-complying situations, the site identifies the root causes and defines and implements actions to bring them into compliance.

2.3.3. The site maintains records to demonstrate regulatory compliance and consistence with agreements it has committed to meet.

Guidance:

Legal obligations include:

- Legislation, regulations and legally required codes or standards;
- Permits, licences and other forms of authorisation;
- Local government legislation;
- Decisions, directions, rulings or interpretations issued by relevant courts and tribunals.

Implementation instruction: Failure to adequately address the cause(s) of identified legal non-compliances would be considered a non-compliance with the ResponsibleSteel Standard, and continued failure, evidenced by repeating or long-standing non-compliance with legal obligations would ultimately result in the withdrawal of the certificate.

Criterion 2.4: Anti-Corruption and Transparency

The site has effective procedures in place to combat corruption.

2.4.1. The site:

- a) Has identified and listed those parts of its operations and activities that pose high risks of participation in corruption;
- b) Has documented procedures to implement and monitor the application of its anti-corruption policy (see Requirement 1.1.1.d), including specific procedures that are applicable to the operations and activities that have been identified as high risk;
- c) Investigates incidences of corruption and suspected corruption and imposes sanctions on employees and contractors for corruption and attempted corruption.

2.4.2. The site implements processes to verify the legitimacy of cash transactions, and limits cash transactions to a maximum of US\$10,000 (or the approximate equivalent in local currency) or lower where required by law.

2.4.3. As part of its anti-corruption procedures, the site sets criteria and approval processes for the offer and acceptance of third-party financial and in-kind gifts, including hospitality and entertainment, and keeps records of given and accepted gifts that require approval.

2.4.4. In countries with a high corruption risk and in cases of public controversy the effectiveness of the site's anti-corruption procedures is reviewed by an independent and competent party. Root causes of corruption incidents are identified and actions to avoid recurrence are defined and implemented.

2.4.5. The site reports to the public the names of political parties, politicians, public officers and other politically exposed persons (PEP) that have received financial or in-kind contributions directly or indirectly from the site, and the total monetary value they have received.

2.4.6. The site regularly reports to the public the names of business associations, charities and think tanks that have received financial or in-kind contributions directly or indirectly from the site, citing the total monetary value they have received.

Guidance:

In-kind gifts: These should include major charitable donations, sponsorships, community payments, and significant hospitality expenses offered in commercial circumstances.

High corruption risk: A country with a score below 50 on the most recent Transparency International Corruption Perceptions Index is considered to have a high corruption risk.

Indirect contributions: For example, contributions made by a trade association that the site is a member of.

Sites may find ISO 37001 – Anti-bribery management systems useful for this Criterion.

Total monetary value received: It is acceptable to report the total amount received within reasonable ranges, e.g. USD 1,000 to 10,000; USD 10,000 to 100,000; etc.

Criterion 2.5: Competence and awareness

Workers are competent and aware of their roles and responsibilities as specified within the site's management systems.

2.5.1. The site has determined the competencies necessary for workers to implement their roles and responsibilities as specified in its management system. Where a role is designated in the management system, competency Requirements have been established for that role and there is an ongoing education and training programme in place to ensure competency.

2.5.2. The site reviews the education, experience, received training and performance of workers regularly to identify competence gaps.

2.5.3. Where gaps are identified, the site takes actions with workers to acquire and maintain the necessary competence.

2.5.4. The site retains documented information as evidence of worker competence.

2.5.5. The site has effective processes in place to ensure that workers are aware of their roles and responsibilities and are competent in their implementation.

Guidance:

Actions to acquire and maintain the necessary competence: These can include, for example, provision of training, mentoring of workers, re-assignment of workers, hiring or contracting of competent persons. The actions must enable workers to understand and implement their roles and responsibilities as defined in the site's management system, which will include the following specific elements as referenced in this Standard:

- Responsible sourcing policy and its requirements and procedures for implementation;
- Code of conduct and expected behaviour related to the code (see 1.1.1.b);
- Legal obligations and obligations resulting from social and environmental agreements that the site is a signatory to;
- Policies and procedures related to anti-corruption, forced, compulsory and child labour, diversity, anti-discrimination and disciplinary practices;
- OH&S-related procedures and the hazards and risks of workers' specific roles, how to identify hazards and risks, and how to perform work safely, focusing on prevention and proactive controls;
- Processes to engage stakeholders and culturally appropriate ways of interacting with stakeholders such as

indigenous peoples and women;

- The concept of free, prior and informed consent (FPIC) and related processes;
- Security arrangements and procedures;
- Policies and procedures related to freedom of association and right to collective bargaining;
- Strategies, plans and procedures in relation to the corporate owner's and the site's GHG-related commitments;
- Procedures for preventing and reducing noise and vibration and emissions to air, for preventing, detecting and mitigating spills and leakage, for managing waste and production residues;
- Procedures related to the site's water stewardship plan and to the management of biodiversity;
- Awareness and understanding of human rights and related procedures.

Principle 3. Responsible Sourcing of Input Materials

Objective:

ResponsibleSteel certified sites increasingly source input materials from suppliers that are working to improve their environmental, social and governance (ESG) performance and address ESG risks.

Background:

Stakeholders, customers and society at large expect companies to understand what is going on in their supply chains and to help manage supplier ESG issues. This expectation reaches beyond the direct suppliers of companies and encompasses all stages of the supply chain. Our vision is that steel companies eventually source all input materials, services and goods from responsible direct and indirect suppliers. However, we recognise the challenges of multi-tier and multi-material supplier networks where a buyer's influence diminishes the more distant suppliers are in the value chain. Since this vision of responsible sourcing will take time to implement, ResponsibleSteel has defined 4 levels that are associated with increasing ESG performance expectations.

The levels are intended to:

- Assist in reducing the complexity of responsible sourcing by defining discrete steps to achieve
- Provide a clear roadmap for the responsible sourcing journey for steel companies and their suppliers
- Help drive momentum for the creation of responsible supply chains
- Enable downstream customers and other stakeholders to specify which level of ESG performance they expect from steel companies and their suppliers.

The steel sector relies heavily on extracted minerals, on scrap and – in some cases – on wood for the production, processing and finishing of steel products. Mining, forestry and related processing activities can be important contributors to a country's economy and to regional development. However, they can also be associated with complex environmental and social impacts. Rather than developing our own standards for the responsible conduct of these activities, we [recognise programmes](#) that credibly define and promote what responsible mining, forestry and processing look like and integrate them into our own requirements. Agricultural residues and waste materials such as plastics are used to a small extent in the steel sector as a replacement for coal-based input materials and steel sites are expected to manage ESG risks associated with suppliers of these input materials. Annex 3 lists all input materials that are covered and not covered by the responsible sourcing requirements and those that are excluded, which currently are energy crops and wood from forests (as opposed to wood from plantations).

While there are a number of programmes for responsible mining, forestry and related processing that our Standard can build on, there are no comparable programmes for the collection and processing of scrap at the time of publishing these requirements. Being a recycled material, scrap supports sustainable production. However, scrap supply chains are significantly diversified, with many more players of different sizes and levels of formalisation and maturity than other supply chains. For these reasons, this document contains a separate set of requirements for scrap.

The structure of each set of Criteria is similar and can be summarised under the following 5 headings:

- Commit to responsible sourcing and incorporate it in key functions and processes (Criteria 3.1 and 3.6)
- Know your upstream supply chains (Criteria 3.2 and 3.7)
- Understand supplier ESG performance and promote improvement (Criteria 3.3 and 3.8)
- Strengthen and account for responsible sourcing (Criteria 3.4 and 3.9)
- Report publicly on responsible sourcing (Criteria 3.5 and 3.10)

The Criteria apply to the respective input materials where they are highlighted in blue in the following table.

Input material	Criterion									
	3.1	3.2 Levels	3.3	3.4 Levels	3.5	3.6	3.7 Levels	3.8	3.9 Levels	3.10
Iron										
Coal										
Other input materials										
Wood from plantations										
Agricultural residues										
Waste materials										
Scrap										

Criterion 3.1 requires steel companies to commit to increasingly source input materials from suppliers that operate in a responsible manner. They are also expected to anchor their responsible sourcing commitment in key functions and processes to aid its implementation.

Under Criterion 3.2, steel companies are asked to know their direct and indirect supply chain links to an increasing extent, as defined in the different levels of the Criterion. Steel is made using a variety of input materials that might be raw or processed, that pass through different suppliers and are mixed and melted at various stages of production and processing. Only when these complex supply networks are understood, can steel companies start to understand supplier ESG performance and support improvements where needed.

Criterion 3.3 requires that the ESG performance of suppliers is reviewed and assessed and that recognised ESG standards are promoted to supply chains. A strategy to support good ESG practices in supply chains must be in place and progress on strategy implementation must be monitored.

Criterion 3.4 describes a progression in sourcing from suppliers that are committed to a recognised input material programme and can offer independent proof of how they perform on ESG issues. We rely on recognised input material programmes to deliver such proof. To achieve ResponsibleSteel’s mission, supplier ESG performance has to increase over time.

Under Criterion 3.4, we have also defined Chain of Custody requirements to monitor and record input material quantities as they move through supply chains. An intact Chain of Custody provides reassurance that input materials are indeed from responsible suppliers and is therefore an important credibility mechanism. However, the Chain of Custody model we describe,

called mass balance, does not ask for the ability to trace input material back to the sites of origin as it allows blending and mixing of material throughout the chain. Requiring a proven, unbroken Chain of Custody from level 2 rather than level 1 will allow steel companies to build market demand and work with their suppliers on establishing a Chain of Custody.

Finally, under Criterion 3.5, steel companies are requested to publicly report key information and developments in relation to responsible sourcing. Providing transparency on what has been achieved and where progress is yet to be made is important for creating trust in the work that is being done to source input materials responsibly.

The requirements of Criteria 3.1 to 3.5 have to be met to achieve 'Certified Steel' certification, in addition to the requirements for GHG emissions intensity. Where levels are provided, at least level 1 has to be met for both responsible sourcing and GHG.

The different levels in Criteria 3.2 and 3.4 are intended as follows:

- Level 1 requires steel companies to have good visibility of their supply chain links and to understand if their suppliers are committed to one of the recognised programmes. The aim of level 1 is to generate market demand to support the creation of responsible supply chains. Level 1 must be met at a minimum to be awarded 'Certified Steel' status
- Levels 2 to 4 build on Level 1 and steel companies can choose to work towards these higher levels. In line with our Theory of Change, expectations from downstream customers, investors, regulators, civil society and other stakeholders will provide incentives to do so. Levels 2 to 4 cannot currently be made mandatory since participation by suppliers in recognised input material programmes is too low to achieve them. This emphasises the importance of level 1 for building market demand
- To meet Level 2, steel companies have to have high visibility of their supply chains links and must source large shares of their input materials from direct (tier 1) and indirect (tier 2, 3, etc.) suppliers that have achieved a pre-determined minimum ESG performance under an input material programme that is recognised by ResponsibleSteel (see the [ResponsibleSteel website](#) for more information)
- Levels 3 and 4 can only be achieved where steel companies have even higher visibility of upstream supply chain links and where direct and indirect suppliers participate in input material programmes that are considered to be 'best-in-class' in their sector in the views of stakeholders and have demonstrated high levels of ESG performance as described in Criterion 3.4.

It should be noted that we require 90% FSC (Forest Stewardship Council) forest management and chain of custody certification for wood from plantations at Level 1, and 100% from Level 2. FSC is a well-established and recognised certification programme that has seen strong take-up over the last 30 years. The situation is therefore different than it is for mined and quarried input material, where only a small number of companies is currently signed up to recognised programmes.

The aim of our sourcing requirements is two-fold: Recognise well-performing suppliers and help improve ESG performance across supply chains. For Level 1, we have deliberately defined requirements that get the steel sector and suppliers started on the responsible sourcing journey. Level 2 should be understood as a stepping stone to responsibility. Levels 3 and 4 require ESG performance that can currently be considered aspirational in the mining sector. These higher levels recognise steel companies and suppliers that commit to and implement input material programmes that are considered to be 'best-in-class' in their sector in the views of stakeholders. Through these levels we intend to incentivise a race to the top when it comes to sourcing. We expect that there will be a 5th level in the future and that Level 1 will be phased out to help us all, over time, to

achieve fully responsible supply chains. The achieved 'Certified Steel' level will be communicated through the ResponsibleSteel website together with key information to be transparent on the status of responsible sourcing at specific steel sites.

The requirements do not currently consider the ESG impacts of transportation, although CO2 emissions from transport are part of a steel company's Scope 3 emissions and therefore covered by the GHG requirements. When the responsible sourcing requirements come up for revision, we expect to include transportation and hope to build on recognised ESG programmes for the transport sector, just like we do for mined and quarried material and wood from plantations. The requirements cover all the input materials that are listed in Annex 3. These are thought to account for 80 to 90% of the input materials used in iron and steel production, processing and finishing. Additional input materials, consumables and services may be added when the requirements are revised in five years' time.

In terms of the practical implementation of the sourcing requirements, the following should be noted: The sourcing of input materials for steel production, processing and finishing is often done at the corporate level and for groups of sites rather than at individual steel sites. Due to this, engagement of the corporate owner of a steel site in ResponsibleSteel audits is expected and necessary to demonstrate that the sourcing requirements are achieved. For ease of reading, the responsible sourcing requirements have been written to address steel sites, but it is understood that the corporate owners of the sites will be heavily involved in meeting the requirements.

We have provided guidance on underlined terms and concepts, some of which is mandatory. It is therefore important to read the guidance to understand the full extent of what is expected for 'Certified Steel' and to understand the context of our requirements.

Criterion 3.1: Commit to responsible sourcing and incorporate it in key functions and processes

There is a public commitment to increasingly source input materials from suppliers that operate responsibly and the commitment is incorporated in key purchasing functions and processes.

- 3.1.1. The responsible sourcing policy is readily accessible to the public and contains commitments to:
- a) Strive to achieve full visibility of input material supply chains over time;
 - b) Promote recognised input material programmes to direct and indirect input material suppliers;
 - c) Establish a Chain of Custody in upstream supply chains for input materials that are from responsible sources;
 - d) Report publicly and regularly on efforts undertaken to source input materials responsibly.
- 3.1.2. At least one specified member of senior management has been assigned accountability to implement the responsible sourcing policy for the site.
- 3.1.3. An effective training programme on responsible sourcing, Chain of Custody and company-specific procedures to implement the responsible sourcing policy is delivered for relevant personnel.
- 3.1.4. Direct suppliers of input materials are required to implement a code of conduct or similar instrument that covers at least the following issues:
- a) Compliance with applicable laws and regulations;

- b) Prevention of corruption, bribery, extortion and money laundering;
- c) Adherence to human rights and labour rights;
- d) Protection of worker and local community health and safety;
- e) Environmental stewardship;
- f) Responsible sourcing;
- g) Transparency on ESG-related issues;
- h) Collaboration of supplier and customer to improve ESG performance;
- i) Monitoring of supplier adherence to the code of conduct;
- j) Expectation that suppliers demand similar ESG practices from their own suppliers.

3.1.5. New direct suppliers of input materials are assessed for their adherence to the code of conduct in line with a documented approval procedure.

3.1.6. Adherence of existing direct suppliers of input materials to the code of conduct is regularly assessed. Where gaps become apparent, measures are taken to ensure the supplier acts in line with the code of conduct.

Guidance:

Promote recognised input material programmes: Ways to promote recognised programmes to supply chain partners are, for example, letters to suppliers, the inclusion of a commitment to a recognised programme in a supplier code of conduct or in terms and conditions, or offering rewards to suppliers that participate in a recognised programme.

Chain of Custody (CoC): A process by which inputs and outputs and associated information are transferred, monitored and controlled as they move through each step in the supply chain (adopted from ISO 22095:2020(E) Chain of custody - General terminology and models). See Criterion 3.4 for more detail.

Report publicly: See Criterion 3.5 to understand what kind of sourcing-related information is expected to be published through the ResponsibleSteel website.

Human and labour rights: Internationally recognised human and labour rights are laid out in the Universal Declaration of Human Rights and in the [ILO Declaration on Fundamental Principles and Rights at Work](#). The core labour standards covered by the Declaration are laid out in eight conventions (see below).

Environmental stewardship: Refers to the efficient use of energy, water and other resources, the prevention of GHG emissions, air, water and land pollution, the application of the mitigation hierarchy to biodiversity and waste, the minimisation of toxic materials, and increased recycling.

Codes of conduct should, at a minimum, reference the following internally recognised conventions:

- [Basel Convention](#) on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- ILO C029 and C105: The elimination of all forms of forced and compulsory labour
- ILO C087 and C098: Freedom of association and the effective recognition of the right to collective bargaining
- ILO C100 and C111: The elimination of discrimination in respect of employment and occupation
- ILO C138 and C182: The effective abolition of child labour

- International Bill of Human Rights (which consists of the [Universal Declaration of Human Rights](#), the [International Covenant on Economic, Social and Cultural Rights](#), and the [International Covenant on Civil and Political Rights](#) and its two Optional Protocols)
- [Minamata Convention](#) on Mercury
- [Stockholm Convention](#) on Persistent Organic Pollutants

Relevant personnel: Includes personnel working in procurement, strategy, sustainability and other departments and teams with links to input material sourcing.

Suppliers are required to implement a code of conduct or similar instrument:

This can either be a code of conduct, or similar instrument, that suppliers have developed and that applies to all individuals working for the supplier, or it can be a supplier code of conduct of the steel company. A code of conduct can be made mandatory by linking it to supply contracts, terms and conditions, or similar. In either case, the code of conduct must cover all the issues listed in 3.1.4. Note the definition of ‘worker’ in the [mandatory ResponsibleSteel Glossary](#).

Supplier adherence to the code of conduct is regularly assessed: Such assessments may take the form of supplier questionnaires with documentary evidence, site visits to suppliers, audits of suppliers, etc. Note also the definition of ‘regular’ above.

Measures taken to ensure the supplier acts in line with the code of conduct: These may range from soft measures such as communication of expectations, training and capacity building to surveying key performance indicators and formal warnings to hard measures such as contractual penalties. Positive incentives, such as longer-term contracts, increases in contract volumes or in paid prices, that are granted when the supplier can demonstrate conformance with the code of conduct are also possible measures.

Generally, the Responsible Jewellery Council’s [‘Due Diligence Member Toolkit’ \(2020\)](#) and [ISO 20400:2017 Sustainable procurement – Guidance](#) are useful, hands-on resources that might help companies implement the responsible sourcing requirements. The [Partnership for Sustainable Textiles](#) has also developed helpful resources that guide companies on ESG issues in relation to supply chains. The resources have been developed specifically for the textiles sector, but most of the advice and good practice is relevant for steel supply chains too.

Criterion 3.2: Know your upstream supply chains

The upstream supply chain links for the input materials used at the site are increasingly known and key information on direct and indirect suppliers is recorded.

- 3.2.1. A documented procedure for collecting information on direct and indirect input material suppliers and for maintaining records to verify the extent to which supply chain links are known is being implemented for the site. Records are maintained for at least 5 years or for the legally required time, whichever is greater.
- 3.2.2. The following detail on the site’s direct and indirect suppliers is internally recorded for each input material on an annual basis:
 - a) Operating names and addresses (or geo locations in latitude/longitude) of sites of origin and upstream processing and of other types of suppliers. Where direct or indirect suppliers oppose to disclose this information to the site, it may be shared by suppliers with the ResponsibleSteel auditors for the purpose of verification via an auditable mechanism (test phase);
 - b) For direct and indirect suppliers that are not known and are not shared via an auditable mechanism, the site describes what it has done to try and determine their identity and why it has been unable to do so;

c) For each direct supplier of input materials: Types, forms and tonnes of provided input materials, and how much of the respective input material the provided quantities account for.

3.2.3. Of the total tonnes received by the site in the last calendar or financial year, at least the following percentage is from upstream input material supply chains where all sites of origin and processing are known. There is evidence to verify the achieved percentage:

	Level 1	Level 2	Level 3	Level 4
a) Iron	≥ 80%	≥ 90%	≥ 95%	≥ 98%
b) Coal	≥ 80%	≥ 90%	≥ 95%	≥ 98%
c) Other input materials (overall) (test phase)	≥ 60%	≥ 70%	≥ 80%	≥ 90%
d) Plantation wood (test phase) with <u>FSC forest management and chain of custody certification</u> , or equivalent	≥ 90%	100%		
e) Agricultural residues	60%	70%	80%	90%
f) Waste materials	60%	70%	80%	90%

Mandatory Guidance:

The table in Criterion 3.2 and in 3.4 should be understood as follows:

- A site is awarded ‘Certified Steel Level 1’ status for responsible sourcing if it meets all the percentages shown in the ‘Level 1’ column. It is awarded level 2 status if all the percentages of the Level 2 column are met, and so on;
- If iron, coal or any other input material covered by the responsible sourcing requirements is used in processed form at the site that applies for ‘Certified Steel’, the respective requirement applies to the main input materials used by the supplier of the processed material. See Annex 3 for examples of ‘processed form’ and examples of the main input materials used in processing;
- For the line ‘other input materials (overall)’: This means that the received tonnes of ‘other input materials’ (see Annex 3) are summed up. Of the total, 60% have to be known up to the sites of origin to achieve Level 1 under Criterion 3.2.
- A steel site is awarded ‘Certified Steel’ certification to the lowest of its achieved levels. To give an example: If the site achieves Level 2 for some requirements and Level 1 for others, it will be certified to Level 1.

See the mandatory Annex 3 for a list of input materials that are covered and not covered by the responsible sourcing requirements, or that are excluded for ‘Certified Steel’ certification.

3.1.1. Test phase: ResponsibleSteel intends to include a 12-month ‘test phase’ for certain areas of the new requirements where testing seems important to ensure that the requirements are fit for purpose. If the test phase shows that changes are necessary, additional stakeholder consultation on those requirements will be conducted. Where these changes are deemed significant, they will be subject to membership voting. ‘Certified Steel’ certificates will still be issued during the test phase and will be valid for three years, which is the default duration of ResponsibleSteel certificates. If significant changes are made to the requirements following the test phase, sites that have already been certified will be

granted a transition period to meet any revised requirements. The existing ResponsibleSteel Standard is scheduled for a formal review in 2023. The new requirements for responsible sourcing and GHG will be reviewed at the same time to align future review cycles. The areas that will be covered by the 12-month test phase are marked 'test phase' in this document.

3.2.1. FSC forest management and chain of custody certification, or equivalent (test phase): This means wood and wood-based products from plantations that are covered by valid FSC forest management certificates and FSC chain of custody certificates. 'Controlled Wood', meaning wood and wood-based products labelled as 'FSC MIX' are excluded and cannot be used by steel sites seeking 'Certified Steel' certification. 'Or equivalent' means that ResponsibleSteel is open to assessing whether there are other responsible forestry programmes in some regions that can be recognised.

3.3.1. Note that plantations on areas that have been converted from natural forests after 1994 are not eligible for FSC certification. However, FSC is running a [public consultation](#) until 14 October 2022 that aims to address the question if and how deforestation that took place between 1994 and 2020 could be remedied and how converted areas might become eligible for FSC certification. See also [here](#). ResponsibleSteel will accept whichever decision FSC takes on this.

3.4.1. For further information on permissible biomass-based input materials, see the mandatory Annex 3.

Guidance:

Evidence to verify: For example, an internal database with details on suppliers, also identifying knowledge gaps and reasons for those gaps. Reports on supply chain research, supplier declarations, Chain of Custody certificates from other programmes (such as ASI for bauxite-derived materials, FSC for material from certified plantations or IRMA for all kinds of minerals originating from mines that participate in the IRMA programme), also invoices, shipping bills, bills of lading, certificates of origin, or customs clearances, contracts, purchase orders. There might be other types of records that fulfil the same purpose, i.e. that provide confidence that supply chain links are indeed known to the required extent.

Note that Criteria 3.3 and 3.4 also require supplier-related procedures. These procedures do not have to be stand-alone procedures but may be part of an integrated procedure to collect and record information on suppliers. There is a logical link between the information that has to be collected on input material suppliers under Criteria 3.2, 3.3 and 3.4, and we recommend connecting the various supplier data points internally to keep administrative burden as low as possible.

It should also be noted that we are looking for site-level information on suppliers, not company-level. However, we realise that some types of suppliers, such as traders and brokers, might not have sites where physical input material is stored and managed. In such cases, company-level information is appropriate.

The following special cases should also be noted:

Transportation is currently out of scope of our sourcing requirements (but is covered by the GHG requirements). This means that if a trader or broker or other supplier uses a transportation company to deliver the input material to the steel site, the transportation company would be considered a service provider, not a supplier. The responsible sourcing requirements would there not be applicable to the transportation company

If a mine site that is a supplier to the steel site purchases ore from other mine sites (including artisanal and small-scale sites), the mine site would be expected to provide information on the mine sites it sources from to the steel site.

Auditable mechanism (test phase): In case input material suppliers are not willing to share the identity of their own suppliers with the steel site, they may be willing to cooperate through an 'auditable mechanism'. The mechanism would work as follows and will be subject to a 12-month test phase. Note that ResponsibleSteel will develop separate guidance on how the auditable mechanism should be implemented by steel companies and auditors:

- The suppliers let the steel site know for how many tonnes of the total tonnes of provided input material they know all sites of origin and upstream processing. This information allows the steel site to understand whether the percentages required by the table in 3.2.3 above are reached;

- However, for the steel site and ResponsibleSteel stakeholders to be confident that input material suppliers do indeed know what they say they know, this information is verified by the ResponsibleSteel auditors of the steel site. Initially, there might be a relatively large number of suppliers that does not agree to share supplier identities with the steel site. To keep the effort for identity verification reasonable, a sample of suppliers would be interviewed;
- Prior to the ResponsibleSteel audit, the steel site provides the ResponsibleSteel auditors with a list of input material suppliers that do not want to disclose information about their own suppliers to the steel site, together with the tonnes procured from each supplier in the most recent calendar or financial year;
- The ResponsibleSteel auditors select a sample of input material suppliers in advance of the audit and ask them to provide evidence directly to the auditors on their sources under a Non-Disclosure Agreement (NDA). The NDA serves to reassure suppliers that the provenance and other commercially sensitive information is treated confidentially;
- The auditors arrange focused interviews with the selected suppliers to review evidence related to their supply chain links, such as an internal database, customs declarations, certificates of origin, shipping logs, bills of lading, vessel packing lists, purchase orders, contracts or other equivalent documentation and records. The interviews can take place remotely, meaning off-site using an internet-based communication tool that allows screen-sharing. A site visit is not needed;
- The auditors use this information to verify the supply chain links and percentages required in the table above, without sharing the information with the steel company.

It should be noted that the costs for these remote interviews have to be borne by the site that seeks 'Certified Steel' certification, so there is a clear incentive to encourage input material suppliers to share the identities of their own suppliers with the steel site rather than draw on the 'auditable mechanism'. See below for guidance on how to encourage suppliers to share information.

In the case that the ResponsibleSteel auditors come across any inconsistencies in the input material suppliers' information, they will inform the steel site of the nature of the inconsistencies so the site can act on this, while adhering to the clauses of the NDA.

There are also specialised service providers that can help identify supply chain links.

Direct supplier: Also referred to as tier 1 supplier. Might be a processor or a miner, or a trader or a broker. In the case of a steel processing site seeking 'Certified Steel' certification, the direct supplier might be a steel making site. In the case of a steel making site it might be an iron making site.

What it has done to try and determine the supplier identity: Activities to determine the identity of direct and indirect input material suppliers may include the following:

- Entering into dialogue with suppliers to explain what the information is for. E.g. written correspondence, direct engagement (meetings, etc.) to discuss the data enquiry and how the supplier may accommodate it
- Where there is resistance, identify what barriers may be preventing the sharing of relevant information and explore what opportunities may be available to address or remove these barriers
- Enter into agreements to assure input material suppliers that the provided information will not be disclosed to other parties
- As a last resort, point out sanction mechanisms (e. g. reduced orders)
- Desktop analyses of publicly available information may also increase supply chain visibility
- There are also specialised service providers that can help identify supply chain links.

The way that steel sites communicate with suppliers is crucial for being successful in the collection of data. The following advice might help ensure appropriate communication:

- Clearly and openly communicate the reasons for collecting information on direct and indirect input material suppliers
- Highlight the importance of supply chain visibility and the fact that regulators and stakeholders increasingly expect companies to understand supply chain links beyond direct suppliers
- Highlight potential benefits of supply chain transparency for the supplier (e. g. risk identification, improved quality and product management, competitive advantage through transparency)

Be prepared for and ready to answer supplier questions on (financial) support for collecting data and on potential consequences of not sharing information.

Criterion 3.3: Understand supplier ESG performance and promote improvement

The ESG performance of direct and indirect input material suppliers is understood and an effective strategy to help improve performance is being implemented.

- 3.3.1. There is a documented procedure to collect information on the ESG performance of direct and indirect input material suppliers and to analyse and classify that information:
- a) The procedure establishes the following information hierarchy: Site-level information is given preference, meaning information on those sites of direct and indirect suppliers that are engaged in the respective input material supply chain. Where site-level information is not available, information is collected on the corporate owner of the sites. Where this is not available, information on the respective input material and on the countries of origin and upstream processing is collected;
 - b) The procedure lists the sources that are used to understand and assess the ESG performance of direct and indirect suppliers and, where these are not known, of the countries of origin and upstream processing;
 - c) The procedure defines how to determine whether the ESG performance of direct and indirect suppliers poses high, medium or low risk to people and nature based on the likelihood and severity of negative impact as a result of supplier performance;
 - d) The procedure specifies that input materials or relevant shares thereof are classified as high risk if neither the sites of suppliers, nor their corporate owners, nor the countries of origin and upstream processing are known;
 - e) The procedure defines regular frequencies for updating risk classifications and describes unforeseen events that trigger unscheduled updates.
- 3.3.2. In line with the procedure, the ESG performance of all direct and indirect input material suppliers, up to the origin of the concerned material, has been analysed and classified, and, where these are not known, for all countries of origin and upstream processing. The results have been documented and are updated as required by the procedure.
- 3.3.3. An analysis of the business practices of the site's corporate owner has been carried out to understand how they might evolve to enable good ESG performance of input material suppliers. The results of the analysis have been documented.
- 3.3.4. There is a documented strategy to help strengthen ESG performance in upstream input material supply chains. The strategy:

- a) Specifies how the business practices of the site's corporate owner are evolving to enable good ESG performance of suppliers, reflecting the results of the conducted analysis;
- b) Outlines how unknown supply chain links might be turned into known ones over time;
- c) Describes how information gaps on the ESG performance of direct and indirect suppliers are addressed;
- d) Describes which direct and indirect suppliers and ESG risks and impacts are given priority to help avoid or reduce negative impact on people and nature;
- e) Defines measures that are taken to help avoid or reduce negative impact of direct and indirect suppliers on people and nature;
- f) Describes how recognised input material programmes are promoted to direct and indirect suppliers;
- g) Contains time-bound targets and objectives to increase the quantity of input material coming from sites of origin and upstream processing that participate in a recognised input material programme.

3.3.5. Implementation of the strategy to strengthen ESG performance in upstream input material supply chains is regularly reviewed. The results of the review and progress against the targets and objectives are documented, and the strategy is updated to reflect the review's findings.

Guidance:

Sources to understand input material supplier ESG performance: There are a number of tools that can help steel companies understand supplier ESG performance. Some are publicly available and for free, others are liable to fees. More information is provided in Annex 4.

When analysing ESG risks at input material suppliers, the conventions listed in the guidance to Criterion 3.1 should be taken into account at a minimum.

Regular: See the definition in the [mandatory ResponsibleSteel Glossary](#). Note that the recently passed German 'Law on Corporate Due Diligence in Supply Chains' requires that risk assessments are carried out annually.

Unforeseen events: For example, a major incident with fatalities at an input material supplier, incidents of child, forced or compulsory labour, failures leading to grave environmental damage or damage to cultural heritage.

Enable good ESG performance of suppliers: Obstacles and challenges for suppliers can arise from a number of aspects, for example: The steel company's procurement strategy, forecasting and planning, price calculations and price negotiations, terms of payment, terms of termination of business relations, changes to orders, lead times. The following functions should be analysed at a minimum: Strategy-setting, sourcing, product development, compliance.

ESG risks that are given priority: Companies should follow the [United Nations Guiding Principles on Business and Human Rights](#). They state that where prioritisation of risks is necessary because there are too many risks to address them all at once, companies should first seek to avoid and reduce those risks that may be the most severe from the perspective of affected stakeholders. This means that risks that are low-likelihood and high-severity have to be prioritised, just like risks that are high-likelihood and low-severity. The severity of the (likely) impact should drive the company's approach to risk management. This is reflected in the risk matrix in Annex 4. In looking at risk, companies should also focus on the (likely) impact on the affected stakeholders rather than on the (likely) impact on business. This is distinct from traditional business risk prioritisation.

In some cases, it will be clear whether or not a risk is severe. In other cases, it will be important to engage with potentially affected stakeholders to gain an understanding of the likely severity.

Some examples of circumstances that should always be prioritised: Where risk of child, forced or compulsory labour is identified, they should be immediately addressed, but in doing so the well-being of the child or the person affected by forced or compulsory labour must be ensured. Where mine sites or harvesting sites threaten World Heritage sites and

other types of protected areas and the values for which the sites were granted protection, this should also be considered a high risk that should be addressed immediately. Likewise, the contamination of rivers, streams or lakes, destruction of natural forests, mine sites with high risk tailings dams, or where suppliers are party to legal or tribunal disputes regarding land tenure.

Measures to help reduce negative impacts: For example:

- Building and exerting influence over those suppliers that can most effectively avoid or reduce negative impact from supply chains;
- Continuing sourcing while working with suppliers to avoid or reduce ESG impacts, but making clear to suppliers that sourcing will be suspended in case there are no improvements after a set time period. Alternatively, suspending sourcing while working with suppliers to avoid or reduce ESG impacts, for example through:
 - Capacity building and training on ESG issues, joint ESG projects;
 - Financial or technical resources to address ESG issues;
 - Better contractual terms linked to improved ESG practices.
- Disengagement from suppliers should be the last resort and should only take place if the supplier is unwilling to address identified issues. For example, if the supplier is unwilling to address child or forced labour. Companies should support suppliers that are willing to improve the situation and their practices but that face genuine difficulties in doing so. Disengagement can have negative implications for the people who work for the supplier and for local communities, so disengagement should always be done responsibly.

It is advisable to develop measures in consultation with suppliers and affected stakeholders to make sure the measures are relevant and appropriate for addressing specific ESG issues.

Note that grievance mechanisms are considered to be important tools for identifying ESG risks and impacts. Steel sites are required to have a grievance mechanism that is open to all stakeholders and to any kind of concern to achieve ‘Certified Site’ status under the ResponsibleSteel programme. This grievance mechanism is sufficient for responsible sourcing purposes as ‘Certified Site’ is a prerequisite for ‘Certified Steel’.

Promoted to direct and indirect suppliers: See the guidance to Criterion 3.1 for more information.

Time-bound targets and objectives: See Criterion 3.4 to understand the minimum targets and objectives that should be set.

Criterion 3.4: Strengthen and account for responsible sourcing

Input materials come from suppliers that participate in recognised programmes to strengthen their ESG performance and there is an accounting system to support an upstream Chain of Custody.

3.4.1. In the last calendar or financial year, suppliers accounting for the below percentages of input material compared to the total tonnes of the respective input material met the following:

	Level 1	Level 2	Level 3	Level 4
	Suppliers are committed to a	<u>Minimum ESG performance</u> achieved under a	IRMA 50, or equivalent	IRMA 75, or equivalent

	<u>recognised programme</u>	recognised programme		
a) Iron	≥ 60%	≥ 80%	≥ 80%	≥ 80%
b) Coal	≥ 60%	≥ 80%	≥ 80%	≥ 80%
c) Other input materials (overall) (test phase)	≥ 40%	≥ 60%	≥ 60%	≥ 60%
d) Plantation wood (test phase) with FSC forest management and chain of custody certification, or equivalent	≥ 90%	100%		

For levels 2 to 4, which constitute 'CoC Input Material':

- 3.4.2. There is at least one specified member of staff that is responsible for the site's implementation of Chain of Custody requirements, as defined below.
- 3.4.3. Direct suppliers of input materials are required to contribute to an unbroken upstream Chain of Custody as follows:
- a) Direct suppliers record shipments they receive, or specified shares thereof, as 'CoC Input Material' where documentation provided by their own suppliers confirms that the input material comes from a supply chain with an unbroken Chain of Custody;
 - b) The following information is recorded by direct suppliers for any shipment of 'CoC Input Material' they receive:
 - Supplier that delivered the input material;
 - Date shipment was received;
 - Types, forms and tonnes of received 'CoC Input Material';
 - ESG performance levels achieved by the sites of origin and upstream processing and the names of the recognised programmes they participate in.
 - c) Direct suppliers retain documentation they receive from their own suppliers confirming the status and tonnes of received 'CoC Input Material' for at least 5 years;
 - d) Direct suppliers ensure that they only sell as many tonnes of 'CoC Input Material' as they have received from their own suppliers;
 - e) Direct suppliers provide documentation to the site that identifies shipments, or relevant shares thereof, as 'CoC Input Material' as follows:
 - Date shipment was dispatched;
 - Types, forms and tonnes of shipped 'CoC Input Material';
 - ESG performance levels achieved by the sites of origin and upstream processing and the names of the recognised programmes they participate in.

- f) Direct suppliers require from their own suppliers that they contribute to an intact Chain of Custody as outlined in a) to e) above.

3.4.4. The site records received shipments of 'CoC Input Material', or relevant shares thereof, as follows:

- a) Date shipment was received;
- b) Types, forms and tonnes of received 'CoC Input Material';
- c) ESG performance levels achieved by the sites of origin and upstream processing and the names of the recognised programmes they participate in.

3.4.5. Documentation provided by direct suppliers on 'CoC Input Material' and on the received tonnes thereof is retained for at least 5 years by the site.

3.4.6. Where input materials are purchased for a portfolio of sites:

- a) The portfolio of sites is clearly defined, including names and locations of the individual sites;
- b) The received tonnes of 'CoC Input Material' and the total tonnes of received input materials have been calculated for the portfolio of sites for the last calendar or financial year;
- c) The received tonnes of 'CoC Input Material' and the total tonnes of received input materials have been calculated for the site seeking 'Certified Steel' certification based on its share of the total tonnes of input materials received by the portfolio of sites;
- d) The share of 'CoC Input Material' calculated for the site seeking 'Certified Steel' certification meets at least the percentages provided in 3.4.1;
- e) Evidence to verify that the percentages provided in 3.4.1. have been met and how the calculations have been done are kept for at least 5 years.

3.4.7. Once certified and if the site sells any of its steel as 'Certified Steel', a documented procedure is being implemented to capture how much of the produced or processed steel was sold as certified (in tonnes), to which customers and in which forms in the last calendar or financial year.

3.4.8. Where steel products are imported to the site from other steel sites, a documented procedure is implemented to ensure that:

- a) The imported steel products are sold as 'Certified Steel' only if they are from sites that have themselves achieved 'Certified Steel' status; or
- b) The imported steel products are kept physically separate from the site's own steel products and, after processing or finishing, are not sold as 'Certified Steel' if they are imported from sites that have not themselves achieved 'Certified Steel' status.

Mandatory Guidance:

Share of 'CoC Input Material': This is calculated using the following simple formula. The result is expressed in percent:

Total tonnes of 'CoC Input Material' x 100

Total tonnes of input material

Accounts for at least: The table in 3.4.1. has to be read as follows:

- To achieve 'Certified Steel Level 1' status, the respective steel site has to meet all the percentages shown in the 'Level 1' column. To achieve Level 2, all the percentages of the Level 2 column have to be met, and so on;

- If iron, coal or any other input material covered by the responsible sourcing requirements is used in processed form at the site that applies for 'Certified Steel', the respective requirement applies to the main input materials used by the supplier of the processed material. See Annex 3 for examples of 'processed form' and examples of the main input materials used in processing;
- For the line 'other input materials (overall)': The received tonnes of 'other input materials' (see Annex 3) are summed up. The sum of the 'other input materials' used at the site provides the basis for meeting the percentages of the respective levels. To give an example: For Level 1, the suppliers of 40% of the 'other input materials' used at the site must be committed to a recognised input material programme. To achieve Level 2 to 4, 60% of the 'other input materials' used at the site must come from suppliers that have achieved the required ESG performance under a recognised programme;
- A steel site is awarded 'Certified Steel' certification to the lowest of its achieved Levels. To give an example: If the site achieves Level 2 for some requirements and Level 1 for others, it will be certified to Level 1.

Level 2: The required ESG performance level is different for each recognised input material programme because they all use different scales of performance and because they are not equivalent.

Levels 3 and 4: These levels serve to reward steel companies and suppliers that commit to and are implementing recognised input material programmes that are considered to be 'best-in-class' in their sector in the views of stakeholders. They are frontrunners in terms of the depth and breadth of their standard, the quality of their assurance and oversight mechanisms, the inclusivity of their governance structure, and the transparency about their processes, operations and participants. See the ResponsibleSteel website for more [information on recognised programmes](#) for more information on recognised programmes.

FSC forest management and chain of custody certification, or equivalent (test phase): See the mandatory guidance to Criterion 3.2.

Input materials purchased for a portfolio of sites: Only those sites in the portfolio that achieve 'Certified Steel' certification can sell steel as certified and make claims in that regard.

Sells any of its steel as 'Certified Steel': Sites that have achieved 'Certified Steel' certification can label all their outgoing steel products as certified. However, to provide transparency on the extent that input material comes from responsible suppliers, key information has to be published on the ResponsibleSteel website. See Criterion 3.5 for more information. In addition, recording how much steel was sold as certified will enable a downstream Chain of Custody to be established between steel sites and sites of end users such as car makers or construction companies. Downstream Chain of Custody requirements will be developed in 2022/2023.

Steel products imported to the site: If imported steel products are re-melted as part of a steel making process, they are treated as any other input material and the requirements of Criteria 3.1 to 3.5 apply.

Guidance:

Require direct suppliers to contribute to an unbroken upstream Chain of Custody: For example, clauses in supplier contracts or in terms and conditions, or other mechanisms that direct suppliers are required to adhere to. The mechanism must cover points a) to f) to meet the full requirement.

Forms of input material: For example, ingots, pellets, sinter, slabs.

Evidence to verify: For example, delivery notes, invoices, shipping bills, bills of lading, certificates of origin, customs clearances or other documentation confirming that the shipment or specified parts thereof contains 'CoC Input Material' and showing the shipped tonnes of 'CoC Input Material'. Also, audit reports or other publications from one of the recognised input material programmes (which may be available from the programme's website) confirming the audit results of the suppliers, or Chain of Custody certificates from other programmes such as ASI, FSC or IRMA.

Criterion 3.5: Report publicly on responsible sourcing

Key information regarding responsible sourcing is regularly reported to ResponsibleSteel for publication on its website.

- 3.5.1. The following information is regularly reported for publication on the ResponsibleSteel website:
- The site's responsible sourcing policy;
 - Description of how the responsible sourcing policy is incorporated in key purchasing functions and processes;
 - A summary of the site's strategy to help strengthen ESG performance in upstream input material supply chains, including any time-bound targets;
 - A summary of the progress made in implementing the strategy and reaching defined targets;
 - The criteria used to prioritise ESG risks found at suppliers;
 - A description of the site's grievance mechanism (as required by 6.2.1 for 'Certified Site' in the existing Standard and now became 8.2.1 in this document);
- 3.5.2. The following site-specific information is regularly reported for publication on the ResponsibleSteel website. The information is reported separately for input materials based on iron, coal, plantation wood and waste materials (other than scrap), and collectively for other input materials. Where sourcing is done for a portfolio of sites, the information is reported for the same portfolio that has been specified in 3.4.6.:
- Percentage of input material sourced for the site:
 - that is from supply chains where the sites of origin and upstream processing are known;
 - that originates from high, medium and low risk sites of origin;
 - that is from high, medium and low risk upstream processing sites;
 - Description of the high and medium ESG risks that have been identified at sites of origin and upstream processing;
 - Description of key measures taken to promote good ESG practices in upstream supply chains and to help reduce ESG risks, and the outcomes of those measures;
 - For level 1: Percentage of input material sourced for the site that is from supply chains where the sites of origin and upstream processing are committed to a recognised input material programme;
 - For levels 2, 3 and 4: Percentage of input material sourced for the site that is from supply chains where the sites of origin and upstream processing have achieved the required ESG performance.

Guidance:

Grievance mechanism: As required by 6.2.1. in the existing ResponsibleSteel Standard (now became 8.2.1 in this document), the grievance mechanism must be effective. The UN Guiding Principles on Business and Human Rights provide eight [effectiveness criteria for grievance mechanisms](#) that steel companies should meet:

1. Legitimate
2. Accessible
3. Predictable
4. Equitable
5. Transparent
6. Rights-compatible

7. A source of continuous learning
8. Based on engagement and dialogue

High, medium, low risks: See the guidance to Criterion 3.3 for a definition of high, medium and low risk and also the information provided in Annex 4.

Key measures taken: See the guidance to 3.3.4.e) on what these key measures might be.

Background on scrap

Scrap is an important input material for the steel sector. In primary steel production, 10 to 25% of material input is scrap. It is used in Basic Oxygen Furnaces to help control temperatures when pig iron is refined into steel and, in some cases, scrap is used in Blast Furnaces to add iron units. In secondary steel production, scrap steel can be up to 100% of material inputs in Electric Arc Furnaces. According to [worldsteel data](#), around 650 million tonnes of scrap are consumed each year for steel production, compared with a total crude steel production volume of 1,869 million tonnes per year.

Over time, steel scrap stocks are expected to grow as societies develop. On average, developed countries have 8 to 12 tonnes stock per person and less developed countries between 1 and 2 tonnes. Dependent on its strength, durability and intended use, the life-cycle of steel varies before it becomes scrap. From a few months for a food can, to fifteen to twenty years for motor vehicles, up to a hundred years or more for constructional steels used in buildings and infrastructure. As steel is typically magnetic and can be recycled indefinitely without losing its properties, it can be more easily sorted than many other materials and is the most recycled material in the world. This supports societal moves towards circular economies. Only a small fraction of steel is lost when used in unrecoverable applications like deep pile foundations or seabed pipelines.

Scrap plays a key role in suppressing industry emissions and primary resource consumption. [Example data](#) from May 2021 suggests that every tonne of scrap used for steel production avoids the emission of 1.5 tonnes of CO₂ and the consumption of 1.4 tonnes of iron ore, 740 kilogrammes of coal and 120 kilogrammes of limestone. As the world transitions towards circular economies and lower greenhouse gas emission production routes, scrap-based secondary steel production is thought to increase.

Scrap supply chains are very diversified, with many players of different sizes, levels of formalisation and maturity. At the base of the scrap supply chain, when looking at post-consumer scrap globally, there are hundreds of thousands, if not millions, of scrap collectors. Scrap trade is also very dynamic, with daily changing market conditions and prices.

Like any other sector, the recycling industry has its own ESG challenges. Consultation with stakeholders and research commissioned by ResponsibleSteel and others, including the World Resources Forum, indicate that there can be hazardous working conditions, labour exploitation, pollution from the recovery of metals from tyres, cables and electronic equipment, and from mismanagement of fluids and wastes. Cash purchases can be widespread in parts of the scrap market and cases of money laundering and corruption have been documented.

There can also be significant barriers to transparency and to understanding potential ESG risk in global supply chains. Scrap is no exception, with the business models of some scrap companies, predominantly traders and agents, being built on having

exclusive knowledge of scrap provenance and mixing and blending of material adding additional challenges. But, where there is a break in the chain of provenance information and evidence, potential ESG risks cannot be assessed and ESG performance cannot be monitored at source or shared with customers. Although the full extent of good and poor practices in scrap supply chains and their impacts on people and nature are unclear due to the limited availability of well-founded research and data at sufficiently granular levels, the uncertainty has the potential to damage the reputation of companies in the scrap supply chain, of steel companies and steel end users. Pre-consumer scrap sourced from manufacturers using steel in their products, is often of higher quality and its manufacturing origin is easier to verify.

To date, scrap sourcing of steel companies usually and primarily focuses on availability, quality and price of scrap. In line with the ResponsibleSteel vision and mission, steel sites and their owners have a duty of care over their input materials, including scrap. ResponsibleSteel requires that steel companies broaden their horizon and start looking into ESG issues for scrap, just like they do for other input materials. Our requirements for scrap sourcing differ from that for other input materials. While there are a number of programmes in place and under development for third-party assurance of responsible mining and minerals processing that we can recognise and build on, there is nothing directly comparable for scrap. In the absence of comparable programmes, ResponsibleSteel must define alternative ways to provide confidence that scrap supply chains are managed responsibly.

Our approach to scrap acknowledges that scrap contributes to sustainable production since it is a recycled material, but also that scrap supply chains are more diversified, with many more players of different sizes, levels of formalisation and maturity than the supply chains for other materials. In developing the requirements for the sourcing of scrap, ResponsibleSteel took account of the complexity of the steel recycling sector and focused on breaking down barriers to understand and enable action in relation to ESG risks that are potentially associated with the sources of scrap.

Introduction to the scrap requirements

The objective of the scrap requirements is that steel companies start to understand ESG performance in scrap supply chains and assess progress in the responsible sourcing of scrap. The scrap requirements must be met by steel companies for any of their sites that seek 'Certified Steel' certification. They apply in addition to the requirements for 'Certified Site' and in addition to the responsible sourcing requirements laid out in Criteria 3.1 to 3.5. ResponsibleSteel-commissioned research, stakeholder input and other relevant guidance, such as BIR (Bureau of International Recycling) publications and ISO/IWA 19: 2017 'Guidance principles for the sustainable management of secondary metals' by the International Organization for Standardization informed the scrap requirements.

In analogy to Criteria 3.1 to 3.5, the scrap requirements introduce 4 levels. The levels and the relatively soft requirements reflect the structural characteristics of scrap supply chains that have been described above. The requirements are specified in 5 criteria that repeat the headings of the other responsible sourcing criteria and thus follow the same logic:

- Criterion 3.6. Commit to responsible sourcing and incorporate it in key functions and processes
- Criterion 3.7. Know your upstream supply chain
- Criterion 3.8. Understand supplier ESG performance and promote improvement

- Criterion 3.9. Strengthen and account for responsible sourcing
- Criterion 3.10. Report publicly on responsible sourcing

The level 1 requirements have been fully worked out. They provide a framework for steel companies, scrap suppliers and industry associations to work together to advance responsible sourcing and responsible management commitments and to increase the potential for positive impact on people and nature through scrap supply chains. Our intention is that the requirements for levels 2, 3 and 4 will be further developed and defined through collaboration with scrap suppliers, industry associations and other relevant stakeholders. Initial requirements and targets for levels 2, 3 and 4 are provided below to indicate the potential direction of travel for these additional levels.

The requirements recognise the range of visibility and influence steel companies have over their scrap sources. They may have better visibility to some sources (typically pre-consumer scrap) and poor visibility and little influence over others (typically towards the origin of post-consumer scrap). For these harder to reach and influence parts of the supply chain, the focus is on engagement and collaboration to identify and address areas with higher risks and more significant potential impacts.

We have defined a set of ‘Principles for the Responsible Management of Scrap’ (see Annex 5), which represent good practices to be communicated throughout the whole scrap value chain. The Principles can supplement and help inform existing guidance, codes of conduct, training, procurement due diligence and appraisals that are carried out with the scrap supply chain. They are intended to help steel companies send a consistent message of their expectations up the supply chain, raising awareness of ESG issues and recognising and supporting good practices.

‘Certified Steel’ requirements related to scrap

Criterion 3.6: Commit to responsible sourcing and incorporate it in key functions and processes

There is a public commitment to increasingly source input materials from suppliers that operate responsibly and the commitment is incorporated in key purchasing functions and processes.

Note that Criterion 3.6 is the same as Criterion 3.1 for ‘Certified Steel’, but no Chain of Custody commitment is required for scrap and 3.6.4.h is unique to scrap.

3.6.1. The responsible sourcing policy is readily accessible to the public and contains commitments to:

- Strive to achieve full visibility of input material supply chains over time;
- Promote recognised input material programmes to direct and indirect input material suppliers;
- Report publicly and regularly on efforts undertaken to source input materials responsibly.

3.6.2. At least one specified member of senior management has been assigned accountability to implement the responsible sourcing policy for the site.

3.6.3. A training programme on responsible sourcing and company-specific procedures to implement the responsible sourcing policy is delivered for relevant personnel.

3.6.4. Direct suppliers of input materials are required to implement a code of conduct or similar instrument that covers at least the following issues:

- a) Compliance with applicable laws and regulations;
- b) Adherence to human rights and labour rights;
- c) Protection of worker and local community health and safety;
- d) Environmental stewardship;
- e) Collaboration of supplier and customer to improve ESG performance;
- f) Monitoring of supplier adherence to the code of conduct;
- g) Expectation that suppliers demand similar ESG practices from their own suppliers;
- h) And specifically for scrap suppliers: Support implementation of the intent of the 'Principles for the Responsible Management of Scrap' up the full supply chain.

3.6.5. New direct suppliers of input materials are assessed for their adherence to the code of conduct in line with a documented approval procedure.

3.6.6. Adherence of existing direct suppliers of input materials to the code of conduct is regularly assessed. Where gaps become apparent, measures are taken to ensure the supplier acts in line with the code of conduct.

Guidance:

Report publicly: See Criterion 3.10 to understand what kind of sourcing-related information is expected to be published through the ResponsibleSteel website.

Regularly: The following extract of the definition of "regularly" is taken from the [mandatory ResponsibleSteel Glossary](#): Scheduled at planned, appropriate intervals. The determination of appropriate intervals depends on the matter at hand. The intervals must be frequent enough to detect change and must take account of risk. Annual might be a suitable frequency for some matters. Where changes can happen quickly or where risk is high, the intervals must be shorter.

When it comes to public reporting on responsible sourcing efforts, annual seems an appropriate frequency that is in line with other corporate reporting cycles and with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Suppliers are required to implement a code of conduct or similar instrument:

This can either be a code of conduct or similar that suppliers have developed and that applies to all individuals working for the supplier, or it can be a supplier code of conduct of the steel company. A code of conduct can be made mandatory by linking it to supply contracts, terms and conditions, or similar. In either case, the code of conduct must cover all the issues listed in 3.6.4. The issues have been identified through analysis of commonalities in codes of conduct of ResponsibleSteel steel company members. Note the definition of 'worker' in the [mandatory ResponsibleSteel Glossary](#)

Human and labour rights: Internationally recognised human and labour rights are laid out in the International Bill of Human Rights and in the ILO Declaration on Fundamental Principles and Rights at Work. The core labour standards covered by the Declaration are laid out in eight conventions (see below).

Environmental stewardship: Refers to the efficient use of energy, water and other resources, the prevention of GHG emissions, air, water and land pollution, the application of the mitigation hierarchy for biodiversity risks and impacts, the minimisation of waste and toxic materials, and increased recycling.

Codes of conduct should, at a minimum, reference the following internally recognised conventions:

- [Basel Convention](#) on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- ILO C029 and C105: The elimination of all forms of forced and compulsory labour
- ILO C087 and C098: Freedom of association and the effective recognition of the right to collective bargaining
- ILO C100 and C111: The elimination of discrimination in respect of employment and occupation
- ILO C138 and C182: The effective abolition of child labour
- International Bill of Human Rights (which consists of the [Universal Declaration of Human Rights](#), the [International Covenant on Economic, Social and Cultural Rights](#), and the [International Covenant on Civil and Political Rights](#) and its two Optional Protocols)
- [Minamata Convention](#) on Mercury
- [Stockholm Convention](#) on Persistent Organic Pollutants.

Relevant personnel: Includes personnel working in procurement, strategy, sustainability and other departments and teams with links to input material sourcing.

Supplier adherence to the code of conduct is regularly assessed: Such assessments may take the form of questionnaires substantiated by documentary evidence, site visits to suppliers, audits of suppliers, etc. Note also the definition of ‘regular’ above.

Measures taken to ensure the supplier acts in line with the code of conduct: These may range from soft measures such as communication of expectations, training and capacity building to surveying key performance indicators and formal warnings to hard measures such as contractual penalties. Positive incentives, such as longer-term contracts, increases in contract volumes or in paid prices, that are granted when the supplier can demonstrate conformance with the code of conduct are also possible measures.

Generally, the Responsible Jewellery Council’s [‘Due Diligence Member Toolkit’ \(2020\)](#) and [ISO 20400:2017 Sustainable procurement – Guidance](#) are useful, hands-on resources that might help companies implement the responsible sourcing requirements. The [Partnership for Sustainable Textiles](#) has also developed helpful resources that guide companies on ESG issues in relation to supply chains. The resources have been developed specifically for the textiles sector, but most of the advice and good practice is relevant for steel supply chains.

Criterion 3.7: Know your upstream scrap supply chain

The supply chains for scrap steel used at the site are increasingly known and key information on suppliers is recorded.

3.7.1. The following details on direct scrap suppliers to the site is internally recorded on an annual basis:

- a) Operating names and addresses of all sites of direct suppliers that provide scrap to the steel site;
- b) The quantity of scrap, in tonnes, that each direct supplier provided to the site;
- c) The percentage split between pre- and post-consumer scrap received by the site. Where accurate numbers are not available, the split is estimated.

- 3.7.2. Working with direct suppliers and other stages in the supply chain, the following information is requested and documented for the scrap supply chain of the site:
- a) Countries of origin for scrap supply to the site;
 - b) Where the country of origin is not attainable: The boundary of supply chain knowledge, gaps and reasons for being unable to identify source countries further up the chain;
 - c) Steps taken to seek additional country of origin information and plans to improve data over time;
 - d) Where suppliers are not sharing the countries of origin of their scrap: Whether they are willing or not willing to share this information with the ResponsibleSteel auditors for the purpose of verification via an 'auditable mechanism' (test phase).

3.7.3. Of the total tonnes of scrap received by the site in the last calendar or financial year, the countries of origin are known for at least the following percentage:

	Level 1	Level 2	Level 3	Level 4
Countries of scrap origin	40%	60%	70%	80%

Guidance:

Criterion 3.7 is not seeking to establish traceability of scrap used in steel making. Instead, steel sites are expected to increasingly know the countries of origin of scrap to inform ESG risk assessment using geography as a proxy indication of the likelihood of good supply chain management.

Some steel companies have completed extensive mapping of their supply chains and already know a high percentage of their scrap and other input material sources and each stage in the chain. ResponsibleSteel is not making the development of fully traceable input materials a requirement, but will support its development over time. It recognises there are currently barriers to this for the very distributed scrap supply chain.

Boundary of supply chain knowledge: Refers to the furthest step in the supply chain for which information can be obtained. Scrap trades and origins can be complex, with many sources, multiple consolidation points, scrap grading, shredding, processing, aggregation and mixing. As transport costs can be very significant for scrap, local and regional supplies are often preferred by steel companies. However, to secure sufficient supply and required quality, countries with significant scrap needs often import significant volumes, in particular from developed countries and regions such as the USA, EU and Japan. This can be through shortsea shipping routes, the train freight network and deep sea (longer, international) routes. Scrap shipments may change hands several times during transportation and may be consolidated, mixed and further processed in dockside facilities. Steel companies often employ scrap assessors to assess scrap quality in outbound and inbound ports. As the focus is on securing supply of the right quality at the right price, scrap origins and ESG management and performance information is not always linked to the available supply. The boundaries where scrap source information becomes unobtainable should be documented together with the reasons for being unable to identify further back up the chain to the original source countries.

Auditable mechanism (test phase): In case input material suppliers are not willing to share the identity of their own suppliers or source countries with the steel site, they may be willing to cooperate through an 'auditable mechanism'. For scrap, the mechanism will work as follows and will be subject to a 12-month test phase. Note that ResponsibleSteel will develop separate guidance on how the auditable mechanism should be implemented by steel companies and auditors:

- The suppliers let the steel site know for how many tonnes of the total tonnes of provided scrap they know the countries of origin. This information allows the steel site to understand whether the percentages required by the table in 3.7.3 above are reached;
- However, for the steel site and ResponsibleSteel stakeholders to be confident that suppliers do indeed know what they say they know, this information is verified by the ResponsibleSteel auditors of the steel site. Initially, there might be a relatively large number of suppliers that does not agree to share supplier identities or country of origin information with the steel site. To keep the effort for identity and origin verification reasonable, a sample of suppliers would be interviewed;
- Prior to the ResponsibleSteel audit, the steel site provides the ResponsibleSteel auditors with a list of its direct scrap suppliers and the tonnes of scrap procured from each supplier in the most recent calendar or financial year;
- The ResponsibleSteel auditors select a sample of scrap suppliers in advance of the audit and ask them to provide evidence directly to the auditors on their scrap sources under a Non-Disclosure Agreement (NDA). The NDA serves to reassure suppliers that the provenance and other commercially sensitive information is treated confidentially;
- The auditors arrange focused interviews with the selected suppliers to review evidence related to the countries of origin, such as customs declarations, certificates of origin, shipping logs, bills of lading, vessel packing lists, purchase orders, contracts or other equivalent documentation and records. The interviews can take place remotely, meaning off-site using an internet-based communication tool that allows screen-sharing. A site visit is not needed;
- The auditors use this information to verify the scrap country of origin, without sharing the information with the steel company.

It should be noted that the costs for these remote interviews have to be borne by the site that seeks 'Certified Steel' certification, so there is a clear incentive to encourage input material suppliers to share the identities of their own suppliers and country of origin information with the steel site rather than draw on the 'auditable mechanism'. See the guidance to 3.2 on how to encourage suppliers to share information.

In case the ResponsibleSteel auditors come across any inconsistencies in the suppliers' information, they will inform the steel site of the nature of the inconsistencies so the site can act on this, while adhering to the clauses of the NDA.

There are also specialised service providers that can help identify supply chain links.

- **Test phase:** ResponsibleSteel intends to include a 12-month 'test phase' for certain areas of the new requirements where testing seems important to ensure that the requirements are fit for purpose. If the test phase shows that changes are necessary, additional stakeholder consultation on those requirements will be conducted. Where these changes are deemed significant, they will be subject to membership voting. 'Certified Steel' certificates will still be issued during the test phase and will be valid for three years, which is the default duration of ResponsibleSteel certificates. If significant changes are made to the requirements following the test phase, sites that have already been certified will be granted a transition period to meet any revised requirements. The existing ResponsibleSteel Standard is scheduled for a formal review in 2023. The new requirements for responsible sourcing and GHG will be reviewed at the same time to align future review cycles. The areas that will be covered by the 12-month test phase are marked 'test phase' in this document.

Criterion 3.8: Understand supplier ESG performance and promote improvement

The ESG performance of direct scrap suppliers and the risks related to the countries of origin of the scrap are increasingly understood and an effective strategy to help improve performance is being implemented.

- 3.8.1. A documented procedure is implemented to collect information on the ESG risks associated with direct scrap suppliers and countries of scrap origin, and to analyse and classify that information:
- a) The procedure requests that direct suppliers inform the steel site whether they have any of the following:
 - Third-party certifications to relevant, recognised international management system standards;
 - Second-party assessments to relevant standards;
 - First-party assessments to relevant standards;
 - If so, the names of the applied standards, the validity date of each certification or assessment, which of the 'Principles for the Responsible Management of Scrap' each certification or assessment covers, and whether the supplier meets these Principles.
 - b) The procedure defines the method and sources used to determine whether the ESG performance of direct scrap suppliers and countries of origin pose low, medium or high risk to people and nature based on the likelihood and severity of negative impact as a result of that performance;
 - c) Where the countries of origin are not known, the procedure specifies that the respective share of received scrap is classified as high risk;
 - d) The procedure defines regular frequencies for updating risk classifications and describes unforeseen events that trigger unscheduled updates.
- 3.8.2. Direct scrap suppliers and all known countries of scrap origin have been analysed and classified in line with the procedure. Where high ESG risks have been identified, further investigation and assessment has been conducted to understand if there are negative impacts on people and nature and the extent thereof.
- 3.8.3. An analysis of the business practices of the site's corporate owner has been carried out to understand how they might evolve to enable good ESG performance of scrap suppliers. The results of the analysis have been documented.
- 3.8.4. There is a documented strategy to strengthen ESG performance in scrap supply chains. The strategy:
- a) Specifies how the business practices of the site's corporate owner are evolving to enable good ESG performance of scrap suppliers, reflecting the results of the conducted analysis;
 - b) Outlines how unknown scrap supply chain links might be turned into known ones over time;
 - c) Defines measures that are taken to help reduce high ESG risks and impacts of direct scrap suppliers;
 - d) Describes how the steel company or its site are involved in initiatives and recognised input material programmes seeking to advance ESG performance in scrap supply chains and how these initiatives and programmes are promoted to supply chain partners;
 - e) Includes objectives and time-bound targets to deliver the strategy.
- 3.8.5. Implementation of the strategy to strengthen ESG performance in scrap supply chains is regularly reviewed. The results of the review and progress against the targets and objectives are documented, and the strategy is updated to reflect the review's findings.

Mandatory Guidance:

Management system requirements should be appropriate to the size and resources of the supplier, i.e., expectations of micro and smaller enterprises should be less onerous, and some elements may be managed informally.

Where no certifications or assessments have been completed, the direct supplier should be deemed to be high risk. In the case of very small suppliers with an informal management system, steel companies should expect at least a self-

assessment against the 'Principles for the Responsible Management of Scrap' supported by some evidence to substantiate the suppliers' assessment. A small scrap supplier is one that produces less than 10,000 gross tonnes of ferrous scrap per month. This means 10,000 gross tonnes for the supplier as a whole, not for an individual site of the supplier.

Where there is a gap in the scope of the assessment in relation to the 'Principles for the Responsible Management of Scrap', this should be documented and the risk associated with the direct supplier should be classified accordingly.

Guidance:

Risk Assessment: An ongoing, proactive and reactive process through which steel company and site management assess their and their supply chains' management practices and performance in respect of human and worker rights, degradation of the environment, impact on corruption and conflict.

To enable a common risk assessment approach to be applied, ResponsibleSteel has drawn on research it commissioned and leans on internationally recognised risk indices. Guidance is provided in Annex 7.

The information gathered under Criteria 3.7 and 3.8 will help to better understand to what extent:

- Third-party certifications exist in the scrap industry as indications of robust ESG management;
- Second and first-party assessments exist in the scrap industry as tools for managing ESG issues;
- ESG risks and impacts for people and nature are prevalent in scrap supply chains.

Where a 'Principle for the Responsible Management of Scrap' is out of scope of a third-party certification, second or first-party assessment, other ways to check fulfilment should be explored. For example, legal compliance registers, the results of financial audits, regulated activities, internal audit reports, publications and media reports (online and print).

The gathered information will also enable the ResponsibleSteel community to raise awareness for ESG issues within the scrap sector. This, in turn, will support efforts to initiate and support a project to create a comprehensive ESG standard, framework or similar tailored to the scrap sector that ResponsibleSteel can recognise.

The information collected and analysed for Criteria 3.7 and 3.8 is also thought to inform the development of the definite targets and requirements for Levels 2, 3 and 4 in Criterion 3.9.

Initiatives and recognised input material programmes: Means initiatives focusing on advancing ESG performance in scrap supply chains. This includes, for example, working groups coordinated by recycling industry associations, multi-stakeholder initiatives, international standards development committees, government or NGO-led projects focused on specific regions or locations.

ResponsibleSteel is aware that, currently, there may not be any programmes that address the whole spectrum of ESG issues and anticipates that these will develop over time. Membership of ResponsibleSteel is a step towards this as it is working in support of multi-stakeholder initiatives that address ESG risks in the scrap supply chain on behalf of its members. However, membership of ResponsibleSteel alone is not sufficient evidence of involvement in relevant initiatives.

Further guidance on initiatives is contained in Annex 6

Criterion 3.9: Strengthen and account for responsible sourcing

Supplier performance is monitored and sourcing from suppliers who meet accepted ESG benchmarks increases over time.

Note: We anticipate that one or more comprehensive ESG standards or frameworks suitable for the scrap industry will become available soon. For example, there is an ISO process to develop a standard called [‘Secondary materials — Principles, sustainability and traceability requirements’](#) that ResponsibleSteel might recognise.

3.9. 1. In the last calendar or financial year, the share of scrap received from direct suppliers accounted for at least the below percentages compared to the total tonnes of scrap received from direct suppliers:

	Level 1	Level 2	Level 3	Level 4
Sites of direct scrap suppliers that have been subject to a third-party audit	-	30%	50%	60%
<u>Sites of small scrap suppliers</u> that have self-assessed against the ‘Principles for the Responsible Management of Scrap’	-	30%	50%	60%
Sites of direct scrap suppliers that have achieved at least the minimum ESG performance in a third-party audit under a recognised input material programme	-	-	30%	50%
Sites of <u>small scrap suppliers</u> that can demonstrate that they meet the ‘Principles for the Responsible Management of Scrap’	-	-	30%	50%

Guidance:

The aim of Criterion 3.9 is to specify requirements that will provide assurance to steel companies, downstream users of steel and stakeholders in general that scrap supply chains are managed responsibly. The targets provided in the table are preliminary. The definite targets and additional underlying requirements to establish and demonstrate an unbroken Chain of Custody are to be developed in a collaborative process with the recycling industry and are intended to be added to the responsible sourcing requirements during future revisions of the ResponsibleSteel Standard. Please see Criterion 3.4 to understand what the aim of a Chain of Custody is and what requirements this might entail.

The information collected and analysed under Criteria 3.7 and 3.8 are thought to inform the development of the definite targets and requirements for Criterion 3.9.

When a direct supplier is a trader or broker, then the suggested targets would relate to the first physical site before supply to the steel producer.

Minimum ESG performance achieved in third-party audit: This is to be defined in a collaborative process with the recycling industry.

Criterion 3.10: Report publicly on responsible sourcing

Key information and developments regarding the responsible sourcing of scrap are reported publicly and regularly for the site and also shared with ResponsibleSteel.

Note the public reporting requirements in 3.5. There is considerable overlap with 3.10 and steel companies are not expected to report identical information twice.

- 3.10.1. The following site-specific information is regularly reported for publication on the ResponsibleSteel website. Where sourcing is done for a portfolio of sites, the information is reported for the same portfolio that has been specified in 3.4.6.:
- a) The site's responsible sourcing policy;
 - b) Description of how the responsible sourcing policy is incorporated in key purchasing functions and processes;
 - c) A summary of the site's strategy to help strengthen ESG performance in upstream input material supply chains, including any time-bound targets;
 - d) A summary of the progress made in implementing the strategy and reaching defined targets;
 - e) The criteria used to prioritise ESG risks found at suppliers;
 - f) A description of the site's grievance mechanism (as required by 6.2.1 for 'Certified Site' in the existing Standard and now became 8.2.1 in this document);
- 3.10.2. The following site-specific information is regularly reported for publication on the ResponsibleSteel website. Where sourcing is done for a portfolio of sites, the information is reported for the same portfolio that has been specified in 3.4.6.:
- a) Percentage of scrap sourced from direct suppliers with a relevant third-party certification;
 - b) Percentage of scrap sourced from direct suppliers with a relevant second-party assessment;
 - c) Percentage of scrap sourced from high, medium and low risk countries of origin and changes since the last reporting period;
 - d) Description of the high and medium ESG risks that scrap suppliers are linked to;
 - e) Description of the high and medium ESG risks that the countries of scrap origin are linked to;
 - f) Description of the key measures taken to help reduce high and medium ESG risks in scrap supply chains and the outcomes of those measures;
 - g) Description of good practices found in the site's scrap supply chains;
 - h) Description of initiatives or recognised input material programmes that the site or its corporate owner engages in and what that engagement looks like;
 - i) For levels 2 to 4: Percentage of scrap sourced from direct suppliers that have been subject to a third-party audit and percentage of those direct suppliers that have achieved at least the minimum ESG performance in a third-party audit under a recognised input material programme;
 - j) For levels 2 to 4, small suppliers: Percentage of scrap sourced from small direct suppliers that have self-assessed against the 'Principles for the Responsible Management of Scrap' and percentage of those small direct suppliers that can demonstrate that they meet the 'Principles for the Responsible Management of Scrap'.

Guidance:

Grievance mechanism: As required by 6.2.1. in the existing ResponsibleSteel Standard (now became 8.2.1 in this document), the grievance mechanism must be effective. The UN Guiding Principles on Business and Human Rights provide eight effectiveness criteria for grievance mechanisms that steel companies should meet:

1. Legitimate

2. Accessible
3. Predictable
4. Equitable
5. Transparent
6. Rights-compatible
7. A source of continuous learning
8. Based on engagement and dialogue

High, medium, low risks: See the guidance to Criterion 3.3 and Annex 7 on high, medium and low risk.

Key measures taken: See the guidance to 3.3.4.e) on what these key measures might be.

Good practices: See Annex 5 and the Principles for the Responsible Management of Scrap, which describe good practices. The list is not exhaustive though.

Principle 4. Decommissioning and closure

Objective:

ResponsibleSteel certified sites minimise the adverse social, economic and environmental impacts of full or partial site decommissioning and closure.

Background:

The full or partial decommissioning and closure of an industrial site can span many years and have major adverse social and economic impacts on local communities. There are also environmental risks relating to structural wear and tear, fire or water damage where facilities and infrastructure are left idle, and water and soil contamination where they are dismantled. The ResponsibleSteel Standard requires that sites anticipate these impacts, engage with those mostly affected on mitigation measures, and put in place mechanisms to manage these impacts. Third-party reviews of the site's provisions for decommissioning, closure and post-closure are meant to ensure that certified sites leave a positive legacy, and transparency about decommissioning and closure plans helps workers and local communities cope with the effects of these events.

This Principle is only applicable to sites where full or partial decommissioning or closure is announced while a site is certified. Compliance would allow such a site to maintain certification while the site is still operational.

Criterion 4.1: Decommissioning and closure

The site takes provisions to minimise short and long-term social, economic and environmental implications of decommissioning and closure.

4.1.1. When the decommissioning or closure of a site or of parts of a site has been announced, the site consults with workers, affected communities and local authorities on decommissioning, closure and post-closure plans, as applicable.

4.1.2. The decommissioning or closure and post-closure plans are approved by the site's senior management and:

- a) Include implementation cost and timeline estimates;
- b) Include provisions to mitigate adverse social and economic impacts on workers and local communities affected by site decommissioning or closure;
- c) Ensures that ecosystems and habitats are not degraded due to decommissioning and closure;
- d) Contain mechanisms for contingency and response planning and implementation.

4.1.3. In the case of closure, the plans:

- a) Take account of community preferences;
- b) Describe the future use of facilities and infrastructure, where these are known;
- c) Include provisions for post-closure monitoring and maintenance of plan implementation.

4.1.4. In the case of decommissioning, the plan describes measures to maintain idle facilities and infrastructure and protect them from risk (see the guidance).

4.1.5. There are financial arrangements in place that:

- a) Cover the full cost of implementation of the decommissioning, closure and post-closure plans;
- b) Guarantee that the full cost will be covered irrespective of the site's finances at the time of decommissioning or closure;
- c) Are approved by the site's senior management and are reviewed by them to ensure their continued adequacy in case of major changes to operations.

4.1.6. A competent third party confirms that the site's decommissioning, closure, post-closure plans, financial assurance arrangements and any revisions thereof are adequate and feasible.

4.1.7. The site makes a summary of its decommissioning, closure and post-closure plans, financial assurance arrangements and any revisions thereof available to the public at no cost, and provides contact details for stakeholders to get more information.

Guidance:

Future-use-plans: Where local authorities determine how the land will be used, the future-use-plans might not be known to sites or they might not be able to influence them.

Facilities and infrastructure: This includes the facilities of the steelworks and, as applicable, roads, railways, dams, captive power plants or transmission lines, pipelines, utilities, warehouses, and logistics terminals.

Mitigation provisions: These may include access to education and training, early retirement possibilities for older workers, relocation and job search assistance.

Protect from risks: Risks include, for example, water damage, freezing, snow load, structure wear and tear, fire, flooding, intrusion.

Principle 5. Occupational Health and Safety

Objective:

ResponsibleSteel certified sites protect the health and safety of workers.

Background:

Industrial processes can be inherently hazardous, and when accidents or occupational illnesses occur they may have serious or fatal consequences. The top priority at any responsible industrial site is therefore health and safety. The ResponsibleSteel Standard requires that a site implements an occupational health and safety (OH&S) management system in line with a recognised standard to provide a framework for the identification of OH&S hazards and the management of OH&S risks and opportunities. However, ResponsibleSteel is not intending to duplicate existing management system standards. Instead, the Standard focuses on success factors that allow a site to achieve high levels of performance when it comes to health and safety: senior management leadership and accountability; engagement of workers and - where needed - of local communities and others; education and training; effective processes for identifying hazards and controlling risks; and performance evaluation and monitoring. Recognising that the elimination of accidents and illnesses is a continuous journey, the Standard also requires that sites care for and look after their workers.

The Occupational Health and Safety Principle fully aligns with the ILO Convention C155. It also links with other Principles of the ResponsibleSteel Standard, most notably Noise, Emissions, Effluents and Waste, since the health and safety of workers and local communities can be affected by the issues covered in those Principles. Criterion 5.7 applies to workers and local communities alike since both would be the main affected parties in case of an emergency.

Criterion 5.1: OH&S policy

The site has a OH&S policy that recognises the rights of workers and acknowledges the obligations of employers to protect the health and safety of workers.

5.1.1 The site has a public formal OH&S policy that:

- a) Provides a framework for the setting of objectives for OH&S;
- b) Is applicable to all workers;
- c) Has been formally endorsed by the site's senior management and workers are consulted when changes are made to the policy;
- d) Is communicated to workers using languages, methods and channels that are understood and are easily accessible to them.

5.1.2. The OH&S policy includes the following commitments:

- a) To aim for elimination of OH&S risks through the identification, elimination or control of hazards and for reduction of risks;
- b) To provide a healthy and safe working environment;

Guidance:

OH&S policy: At a minimum, the OH&S policy should reflect all the obligations at the level of the undertaking specified in ILO Convention 155.

Criterion 5.2: Health and Safety (OH&S) management system

The site establishes, implements, maintains and continually improves a OH&S management system.

5.2.1. The site implements a documented OH&S management system that:

- a) Assigns accountability for OH&S to senior management and documents OH&S responsibilities;
- b) Covers the full scope of the site's processes, activities, products and services;
- c) Shows that the site has taken account of the needs and expectations of workers, local communities and other parties that are affected by its activities;
- d) Aligns with a recognised national or international OH&S management system standard or recognised guidelines.

5.2.2. The OH&S management system includes effective documented procedures to:

- a) Identify all applicable OH&S laws and regulations in relation to OH&S and ensure that relevant requirements are effectively implemented;
- b) Identify and assess potential hazards and associated OH&S risks, including health and wellbeing risks, using competent persons and considering emerging and critical OH&S risks;
- c) Determine and implement preventive and protective control measures aimed at eliminating hazards and reducing risks to levels that are as low as reasonably practicable, giving due consideration to industry best practice in determining and implementing control measures.
- d) Consult with workers to ensure they have information on and comprehensive participation in OH&S matters and decisions that affect them;
- e) Determine and implement education and training programmes for workers on OH&S matters;
- f) Report incidents including near-misses and occurrences of occupational diseases on an ongoing basis,

undertake investigations, including reviewing absent or failed control measures, and implement effective actions to prevent similar incidents re-occurring in the future.

Guidance:

Examples of recognised national or international OH&S management system standards or guidelines:

- ISO 45001:2018 Occupational health and safety management systems - Requirements with guidance for use;
- BS OHSAS 18001 (Occupational Health and Safety Assessment Series) until replaced by ISO 45001;
- Guidelines on occupational safety and health management systems ILO-OSH 2001;
- Any other national equivalent until replaced by ISO45001:2018 (e.g. AS/NZS 4801 in Australia & New Zealand).

Matters and decisions that affect workers: For example:

- Identification and assessment of hazards and risks;
- Design of education and training programmes;
- Reporting of incidents, occurrences of occupational diseases and their investigation

Health and Wellbeing Risks include all occupational health-related diseases, such as organic and systemic diseases, musculoskeletal diseases, mental health risks, burn out and all other work-related adverse health impacts. Note that these may be classified as:

- Acute (show their impact shortly after exposure to a hazard, such as exposure to carbon monoxide);
- Cumulative (show symptoms after a longer period of lower-level or repeated exposure, such as hearing loss, pneumoconiosis, or repetitive strain injuries);
- Latent (having a period of delay between first exposure and emergence of symptoms, such as most cancers);
- Or may evolve into a chronic condition (symptoms are long-term or permanent, such as asthma, emphysema).

The International Labour Organization (ILO) estimates that 2.78 million workers die from occupational accidents and work-related diseases each year. Over 80% of these deaths are disease-related.

Effectiveness: An ongoing examination of leading indicators can give an idea of the effectiveness of OH&S policies, programmes and procedures.

Critical OH&S Risks: Sites are advised to pay specific attention to adverse health and safety risks, including but not limited to, risks associated with health and wellbeing (see definition above), process safety, electrical safety, working at

heights, product handling, storage & transportation and the operation of equipment and any other risks sites may deem critical.

Preventive and protective control measures: These include modification, substitution and elimination of processes, conditions or substances that pose a hazard or health risk, as well as engineering and administrative controls (which can include documented OH&S standards) and personal protective equipment. In choosing where best to control a hazard, the principles of control in industrial or occupational hygiene dictate that the hierarchy should be applied:

1. At the source;
2. Along the exposure path;
3. At the worker only if (1) or (2) are not reasonable or possible.
 - At the source: A strategy of eliminating the hazard completely, for example by engineering it out of existence, or substituting a less hazardous chemical. Complete isolation of the hazard that prevents any and all possible exposure can also be described as control at the source. This is the best possible control strategy because no further monitoring, maintenance, control programme, or training is required - the hazard is simply gone.
 - Along the exposure path: A strategy of controlling a hazard somewhere between its origin and the point of interaction with a worker. Examples would be machine guards and barriers, noise absorbing machine enclosures, local and area ventilation.
 - At the worker: A strategy of controlling a hazard at the worker. Examples would include work procedures, personal protective equipment (PPE) and administrative controls such as job rotation. This is the least effective point at which to control a hazard because it requires the development of a control programme and constant monitoring for compliance, PPE suitability, PPE fit, PPE maintenance, PPE availability, training, enforcement, etc.

Workers have a right to refuse to perform unsafe or unhealthy work. Sites should consider providing a procedure for handling such refusals, ensuring that no negative consequences arise for a worker exercising this right, so long as it is done in good faith.

Criterion 5.3: Leadership and worker engagement on OH&S

The site demonstrates leadership and commitment with respect to OH&S, trains and educates workers on OH&S-related matters on an ongoing basis and has an effective mechanism for worker engagement and participation in key OH&S decisions.

5.3.1. The site's senior management has processes in place to demonstrate personal leadership and commitment with respect to OH&S, including:

- a) Setting of OH&S objectives and targets;
- b) Engaging workers in key OH&S-related decisions;
- c) Regular and effective management review of OH&S risks, opportunities and performance (see Criterion 3.6 below).

5.3.2. The site has an effective mechanism that brings together site management and workers to discuss OH&S-related issues and to engage workers in decisions on key OH&S matters:

- a) The purpose, structure, scope and formal rules of procedure of the mechanism, as well as the roles and responsibilities of those participating in the mechanism are documented;
- b) Individual workers participating in the mechanism have been freely chosen by workers;
- c) The mechanism has a balanced composition where neither site management nor worker interests dominate;
- d) There are processes to build and ensure the competence of individuals participating in the mechanism;
- e) There are processes to ensure the timely provision of comprehensive and accurate information to enable effective discussion and decision-making by participants.

5.3.3. Beyond the worker-management mechanism, the site implements processes to encourage worker participation to improve OH&S outcomes and provides a mechanism for workers to raise, discuss and participate in the resolution of OH&S concerns with senior management.

Guidance:

Effective mechanism that brings together site management and workers: This may be a Joint Health and Safety Committee or another mechanism for the structured engagement of workers in OH&S matters and decisions. Where worker representatives exist, they may be part of the mechanism.

Note that voicing worker concerns in relation to OH&S issues is covered under Principle 6.

Formal rules of procedure: These include, for example, mutually agreed-upon rules on attendance, quorum and under which circumstances voting may be appropriately used as an alternative to consensus decision-making.

Criterion 5.4: Support and compensation for work-related injuries or illness

The site provides workers with support and compensation for work-related injuries or illness and cares for their dependents in case of work-related death.

5.4.1. The site has processes in place to provide care and support to injured or ill workers and support rehabilitation, including health and wellbeing.

5.4.2. In countries in which compensation for work-related injury, illness or death is not provided through a government scheme, collective bargaining agreement or mandatory benefits by law, the site has a commitment to cover the costs and losses associated with work-related injury, illness or death.

5.4.3. To implement 5.4.2., the site has documented procedures for:

- a) Determining and providing compensation to workers for work-related injury or illness, considering medical expenses, wages during the recovery and rehabilitation period, suitable duties during recovery and rehabilitation and, where recovery is not possible, lost future earnings;
- b) Determining and providing compensation to workers if an occupational illness connected to the worker's duties manifests after a worker has retired;
- c) Determining and providing compensation to worker's dependents in the event of work-related death.

5.4.4. The site keeps records on:

- a) Incidents of work-related injury, illness or death;
- b) Received claims to compensate for work-related injury, illness or death and how they have been dealt with;
- c) Paid compensation and how the compensation amount was determined.

Guidance:

Compensation: Compensation for injured or diseased workers should be provided on a “no-fault” basis, that is, eligibility for and amounts of compensation are not to be adjusted based on apportioned “blame”.

Commitment to cover the costs and losses: It is good practice to fully insure these commitments outside the books of the company.

Criterion 5.5: Safe and healthy workplaces

The site's facilities, plants, infrastructure, workplaces, equipment and tools are safe and maintained in good order.

5.5.1. The site provides facilities, plants, infrastructure, equipment, materials and tools that do not pose risk to health and risk of incidents and ensures they are maintained in safe working order.

5.5.2. The site ensures that workers are provided with a safe and healthy working environment, which includes but is not limited to:

- a) Clean and hygienic workplaces, including factory, offices, sanitation areas, food storage and meals break areas with seating;
- b) Safe and accessible drinking water, free of charge;
- c) Sanitation facilities commensurate with the number of workers and adequate for the gender of workers.

5.5.3. If workers are provided with on-site housing, the site ensures that such housing is maintained to a reasonable standard of safety, security, repair and hygiene, and is provided with sufficient and proper sanitation facilities, drinking water, and access to an adequate power supply.

Guidance:

Plants, equipment and tools: This covers all forms of mobile plants, fixed plants and powered and non-powered tools in use at the site's facilities. For example, forklifts, cranes, trucks, hand tools and personal protective equipment (PPE).

Facilities and infrastructure: This includes the facilities of the site and, as applicable, roads, railways, dams, captive power plants or transmission lines, pipelines, utilities, warehouses, and logistics terminals.

Criterion 5.6: OH&S performance

The site monitors and discloses key aspects of its OH&S performance and works to improve it over time.

5.6.1. The site monitors OH&S performance through a combination of leading and lagging indicators and keeps performance records. Performance is reviewed by senior management and by the worker-management mechanism on a regular basis and necessary actions are taken to improve OH&S outcomes.

5.6.2. The site has a process to verify its performance data and regularly discloses key aspects of its OH&S performance to the public.

Guidance:

Leading Indicators: These are indicators of an effective OH&S management system to proactively predict performance.

The six main categories of leading indicators are those that provide qualitative or quantitative information on the existence or functioning of the following:

1. Effective worker-management mechanism;
2. Visibly committed management;
3. Human resources system: ensuring that the right people are assigned to the right jobs, including training and motivation;
4. Engineering, job design and work rules and procedures system: ensuring that jobs and tasks are properly designed and that procedures exist for doing them safely;
5. Purchasing and maintenance system: ensuring that materials, tools and equipment are as safe as possible;
6. Safety and occupational hygiene system: ensuring, on an ongoing basis, the safest and healthiest working environment possible.

Examples for leading indicators include:

- Near-misses;
- Potential serious incident frequency rates;
- Risk assessments;
- Health assessments;
- Progress on objectives;
- Participation rates on OH&S initiatives;
- Conduct of audits and inspections;
- Results of effectiveness of controls monitoring;
- Execution and effectiveness of preventative maintenance programmes;
- Conduct and effectiveness of OH&S training and meetings;
- Level of commitment of all OH&S systems, particularly the worker-management mechanism.

Some of this information can only be obtained by asking, either directly or via surveys of workers, for example.

Lagging Indicators: These can only be measured after some unwanted outcome. Examples include:

- Fatalities;
- Lost time injuries;
- Medical treatment cases;
- Instances of occupational disease;
- Other incidents and injuries;
- Compensation payments.

Sites should determine which leading and lagging indicators best suit their operations.

Fatality: Accidental death at workplace or arising out of work, including deaths due to occupational diseases.

Lost time injury: An injury that prevents a person from returning to his or her next scheduled shift or work period (including fatalities).

Medical treatment case: A workplace injury requiring treatment by a medical professional.

Near-miss incident: An incident where no injury and ill health occurs but has the potential to do so. May also be referred to as a “near-hit” or “close call”.

Health and safety incidents: Near-miss incidents as well as incidents resulting in any injury of ill health

Criterion 5.7: Emergency preparedness and response

The site has identified and assessed emergency situations and has tested emergency preparedness and response processes in place to avoid and minimise impact of accidental and emergency situations.

5.7.1. The site has processes in place to identify and assess emergency situations on a regular basis.

5.7.2. The site has documented emergency preparedness and response procedures in place to avoid and minimise loss of life, injuries and damage to property, health and social well-being of its workers, local communities and the environment in the event of accidental and emergency situations.

5.7.3. The documented emergency preparedness and response procedures are developed and regularly tested with workers. Where potential emergency situations might affect local communities or neighbouring organisations, local authorities and emergency responders are engaged in the development and testing of the processes.

5.7.4. The emergency preparedness and response procedures are included in worker and emergency responder training programmes and communication plans. Where relevant, the emergency preparedness and response processes are communicated to local authorities, local communities and neighbouring organisations.

5.7.5. The site tests the effectiveness of its emergency preparedness and response procedures. Where necessary, the site defines and implements actions to ensure the processes are effective.

5.7.6. The site anticipates and insures against the cost of reparation for accidents and emergency situations to ensure that funds are available for implementing effective emergency response, pay compensation for damages, injury or loss of life, and for the site to fund recovery and reconstruction in a timely and efficient manner.

Guidance:

Emergency preparedness and response processes should:

- Be specific to the different kinds of accidents and emergencies that may occur;
- Specify training requirements, roles and responsibilities, provision of equipment and resources, and communication plans with potentially impacted workers, communities and individuals.

Emergency Communication Plans should:

- Be developed in consultation with potentially affected stakeholders such as workers, local communities and authorities;
- Identify all affected stakeholders that will be informed of emergencies;
- Confirm that communication on emergencies will be issued to affected stakeholders immediately after the incident has been detected;
- Specify that the communication will contain the type and potential impact of the emergency, what the site will do to minimise impact, what affected stakeholders can do to minimise impact, and who to contact for any emergency-related inquiries;
- Prescribe that the site will issue regular updates on impacts and remediation action to affected stakeholders;
- Outline how to coordinate with emergency services;
- Describe how the site will respond to inquiries in a timely manner.

Principle 6. Labour Rights

Objective:

ResponsibleSteel certified sites respect the rights of workers and support worker well-being.

Background:

The 'Declaration on Fundamental Principles and Rights at Work' was adopted by the International Labour Organization (ILO) in 1998. In the Declaration, ILO member states agreed that they should all respect, promote, and realise core labour standards. These core labour standards are laid out in eight conventions (see below) and require freedom to join a union, bargain collectively and take action, abolition of labour by children before the end of compulsory school, abolition of forced labour and no discrimination at work. While it is the member states that ratify ILO conventions, the provisions of the Declaration apply directly to sites in these member states.

The ResponsibleSteel Standard aligns with the core labour standards defined by the ILO. It applies a risk-based approach to child and forced labour, meaning it asks sites to analyse whether they face any risk in relation to child and forced labour and, where this is the case, to take action to address these. This approach acknowledges that child and forced labour still exist in many places around the world, even in places where one might not expect them to occur. The Standard further requires that workers, including contracted workers, are treated with respect and dignity, are paid fairly and in a timely manner, and requires sites to make efforts to reconcile work and private life, support the health of workers and advance their qualifications.

The Labour Rights Principle has strong links with the Human Rights and the Health and Safety Principles.

The ILO core labour standards are laid out in eight Conventions:

- Freedom of association and the effective recognition of the right to collective bargaining (C087 and C098)
- The elimination of all forms of forced and compulsory labour (C029 and C105)
- The effective abolition of child labour (C138 and C182)
- The elimination of discrimination in respect of employment and occupation (C100 and C111)

Criterion 6.1: Child and juvenile labour

The site does not use or tolerate child labour, effectively addresses any detected incidents of child labour, and cares for juvenile workers.

6.1.1. The site has a public policy declaring that it does not use or tolerate child labour.

6.1.2. The site has effective procedures in place to:

- a) Assess the risk of it engaging or tolerating the use of child labour;
- b) Analyse if there are children working at its site. The results of these analyses are documented.

6.1.3. Where there is a risk of child labour being engaged or tolerated at the site, there are effective procedures in place to:

- a) Address these risks;
- b) Record, investigate and address any identified concerns related to child labour;
- c) Take action to remove child labour where it is detected, with provisions to ensure the continued welfare of the child and, where the child is a primary provider, its family.

6.1.4. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly prohibit the use of child labour.

6.1.5. In relation to juveniles, the site has an effective procedure in place to:

- a) Identify and document the types of work that juveniles should not perform, such as work that requires significant experience or specialist training, to ensure they are not exposed to activities that might be hazardous or harmful to their health or safety;
- b) Ensure that juveniles do not perform the work outlined in 6.1.5.a.

Guidance:

Child labour: The site shall only employ or accept persons who are at least 15 years old, have reached the applicable minimum legal age for employment, or who have passed the applicable age for compulsory education, whichever is highest.

Child labour at the site: The risk analysis of the site shall not only cover workers employed directly by the site but also workers employed by contractors, agencies, etc. that perform activities at the site.

Criterion 6.2: Forced or compulsory labour

The site does not use or tolerate forced or compulsory labour and effectively addresses any detected incidents of forced or compulsory labour.

6.2.1. The site has a public policy declaring that it does not use or tolerate the use of forced or compulsory labour.

6.2.2. The site has effective procedures in place to:

- a. Analyse if there is forced or compulsory labour at its site. The results of these analyses are documented;
- b. Identify and document the risk of forced or compulsory labour at the site.

6.2.3. Where there is a risk of forced or compulsory labour at the site, there are effective procedures for:

- a) Addressing these risks;
- b) Recording, investigating and addressing any allegations related to forced or compulsory labour;
- c) Taking action to remove forced and compulsory labour where it is detected, with provisions to ensure the continued welfare of the workers in question.

6.2.4. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly prohibit the use of forced and compulsory labour.

Guidance:

Analyse if there is forced or compulsory labour: The risk analysis of the site shall not only cover workers employed directly by the site but also workers employed by contractors, agencies, etc. that perform activities at the site. Indications of forced and compulsory labour are:

- The freedom of movement of workers in the workplace, in on-site housing, or upon entering or exiting facilities associated with the site is unreasonably restricted;
- Workers' original government-issued identification and travel documents, such as identity papers, are retained;
- Workers have to bear costs related to recruitment, have to lodge deposits, security payments or pay fees for work equipment;
- Workers are prevented from terminating their employment after reasonable notice or as established by applicable law.

Costs related to recruitment: Any fees or costs incurred in the recruitment process in order for workers to secure employment or placement, regardless of the manner, timing or location of their imposition or collection (Adopted from: General principles and operational guidelines for fair recruitment & Definition of recruitment fees and related costs. International Labour Office - Fundamental Principles and Rights at Work Branch, Labour Migration Branch – Geneva: ILO, 2019).

Examples for recruitment-related costs are: Agency service fees, recruitment or placement service fees, airfare or fare for other mode of international transportation, terminal fees, and travel taxes, costs or fees for passport, visa, work and/or residence permits (including renewals), pre-deployment skills tests, certifications, medical exams or other requirements for employment, training or orientation, transportation to and from airport to facility or provided accommodations, security deposits or bonds, etc.

Criterion 6.3: Non-discrimination

The site's hiring decisions and employment relationships are based on the principle of equal opportunity, actively prevent all forms of discrimination and promote inclusion and workforce diversity.

6.3.1. The site has a public policy stating that it:

- a) Prohibits discrimination in its hiring and other employment practices;
- b) Provides equal pay for work of equal value;
- c) Where relevant, ensures that migrant workers are engaged on equivalent terms and conditions as non-migrant workers carrying out similar work.

6.3.2. The site has effective procedures in place to analyse the risk of workers being affected by discrimination. The results of the analyses are documented.

6.3.3. Where there is a risk that workers are affected by discrimination, the site has effective procedures to:

- a) Address these risks;
- b) Document, investigate and address any incidents or allegations of discrimination.

6.3.4. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly prohibit discrimination.

6.3.5. The site implements a programme to promote inclusion, workforce diversity, gender equality and to create a non-discrimination culture among workers.

6.3.6. The site collects data demonstrating that it provides equal pay for work of equal value.

Guidance:

Discrimination at the site: The risk analysis of the site shall not only cover workers employed directly by the site but also workers employed by contractors, agencies, etc. that perform activities at the site.

Note that where local legislation or law requires **positive discrimination** in favour of local residents, indigenous peoples, or individuals who have been historically disadvantaged, this may not be regarded as discrimination.

Equal pay for work of equal value: In order to determine the value of a job for the purpose of applying the principle of equal pay for work of equal value, an objective assessment in accordance with relevant and appropriate criteria must be undertaken. The basic criteria used to value jobs are:

- The responsibility demanded of the work, including responsibility for people, finances and material;
- The skills, qualifications, including prior learning and experience required to perform the work, whether formal or informal;

- Physical, mental and emotional effort required to perform the work;
- The assessment of working conditions may include an assessment of the physical environment, psychological conditions, time when and geographic location where the work is performed. (adapted from Equality and Human Rights Commission)

Data demonstrating equal pay for work of equal value. This may include data that compares the pay for work of equal value, such as:

- The difference between average pay and total pay of women and men for each equal work group;
- Comparison of access to and amounts received of each element of pay. (adapted from Equality and Human Rights Commission)

Criterion 6.4: Association and collective bargaining

The site respects and supports workers' rights to freedom of association and collective bargaining.

6.4.1. The site has a public policy stating that it allows workers to associate freely with others, form or join organisations of their choice and bargain collectively, without interference, opposition, discrimination, retaliation or harassment.

6.4.2. Where national law restricts workers' organisations, the site has evidence showing that it respects and does not obstruct legal alternative means for workers to associate freely.

6.4.3. There is a documented process for engaging in collective bargaining processes that shows that the site:

- Participates in good faith;
- Provides workers' representatives and workers' organisations with the information needed for meaningful negotiation and does so in a timely manner;
- Does not hire replacement workers or use agency personnel as a strategy to prevent or break up a legal strike, support a lockout, or avoid negotiating in good faith.

6.4.4. Where collective bargaining agreements exist, the site has evidence showing that it adheres to their provisions.

6.4.5 The site:

- Respects the right for employment and recruitment agency workers to collectively bargain, and their freedom of association;
- Provides to employment and recruitment agencies information regarding the provisions of any collective bargaining agreements that are applicable to site workers carrying out similar work, for them to review and consider;

- c) Requires employment and recruitment agencies to comply with 6.4.1 of this Standard;
- d) Requires employment and recruitment agencies to adhere to Collective Bargaining Agreements that apply to them. In the absence of an applicable Collective Bargaining Agreement, the legal minimum wage or prevailing industry standard conditions, whichever is the greater, will apply;
- e) Ensures that where employment and recruitment agencies are used on the site, the site has demonstrable processes in place to ensure the Health and Safety of workers is protected.

6.4.6. Workers' representatives have access to facilities suitable for carrying out their functions, such as designated non-work areas for communicating with workers.

Guidance:

Policy on association and collective bargaining: This shall be in line with ILO Conventions C87 and C98.

Replacement workers: Note that the site may hire replacement workers to ensure that critical maintenance (including that required to prevent serious damage to plant), health and safety, and environmental control measures are maintained during a legal strike.

Criterion 6.5: Disciplinary practices

The site does not use, threaten to use or tolerate disciplinary practices that undermine workers' dignity and effectively addresses any detected incidents of such disciplinary practices.

6.5.1. The site has a public policy that prohibits threats or use of disciplinary practices that undermine workers' dignity (called 'undignified disciplinary practices' hereafter).

6.5.2. The site has effective procedures in place that have been developed together with workers and their legitimate representatives to analyse the risk of undignified disciplinary practices being used or threatened to use. The results of the analyses are documented.

6.5.3. Where there is a risk that the site causes or tolerates undignified disciplinary practices, the site has effective procedures to:

- a) Address these risks;
- b) Document, investigate and address any incidents and allegations of undignified disciplinary practices being used or threatened to use.

6.5.4. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly prohibit the use or threat of using undignified disciplinary practices.

Guidance:

Undignified disciplinary practices at the site: The risk analysis of the site shall not only cover workers employed

directly by the site but also workers employed by contractors, agencies, etc. that perform activities at the site.

Criterion 6.6: Hearing and addressing worker concerns

The site ensures that issues of concern to workers are resolved. Workers and their representatives can communicate openly and safely with management regarding working conditions.

6.6.1. The site has documented and effective procedures in place that can be used by workers and workers' representatives to voice concerns and for the investigation of concerns. The procedures:

- a) Allow workers and their representatives to report concerns without fear of reprisal, intimidation or harassment. Workers and their representatives can choose to report concerns in an anonymous manner, where this is legally accepted, and via a third-party mechanism;
- b) Ensure that concerns are investigated and resolved in an impartial and timely manner, and that complainants are informed of the outcomes of the investigation;
- c) Require that records of raised concerns, investigation processes and outcomes are maintained, ensuring that confidentiality in relation to the party or parties that raised the concern is maintained.

6.6.2. Workers and their representatives are made aware of the site's procedures and how to access reporting mechanisms using languages, methods and channels that are understood and are easily accessible to them.

6.6.3. The site provides mechanisms to workers and their representatives for suggesting improvements or changes to the workplace and to working conditions. The site keep records of received suggestions and how they are considered.

Guidance:

Concerns: These include worker grievances, allegations of misconduct, allegations of policy breaches in the areas of disciplinary practices, health and safety, etc.

Third-party mechanism: A third-party mechanism does not necessarily have to be set up specifically for the site. Academic bodies, state agencies such as a local ombudsman, non-profit organisations are all examples of third-parties that have played a role in grievance mechanisms. There are also service providers specialised in running grievance mechanisms. Third parties can serve as facilitators, access points for the mechanism, technical experts, co-investigators, mediators, appeals assessors or oversight panel members. Some companies have also engaged third-parties to provide independent monitoring of the grievance mechanism on a regular basis. Sites may consult the IPECA Good Practice Survey on operational level grievance mechanisms to seek advice on how to set up and manage grievance mechanisms. While it was developed for oil and gas companies, its advice is relevant for companies of other sectors.

Criterion 6.7: Communication of terms of employment

The site ensures that workers understand their current employment terms with regards to wages, working hours and other employment conditions.

6.7.1. The terms of employment are laid out in written contracts for all workers and are communicated to them at the beginning of the working relationship and when there are changes to the terms using languages, methods and channels that are understood and are easily accessible to workers. The terms of employment include:

- a) Workers' rights under national labour and employment law;
- b) Days and hours of work, payment, overtime, compensation, and benefits;
- c) Applicable collective agreements;
- d) Pay structure and pay periods.

6.7.2. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly ask for the terms of employment to be communicated to workers at the beginning of the working relationship and when there are changes to the terms using languages, methods and channels that are understood and are easily accessible to workers.

Guidance:

N/a

Criterion 6.8: Remuneration

The site pays workers fairly, regularly and on time, there are no inappropriate deductions from wages and overtime is rewarded.

6.8.1. The site has a public remuneration policy that commits the site to:

- a) Pay at least the applicable legal minimum wage to all workers or the wage set through a collective agreement, whichever is higher. Where there is no legal minimum wage and no collective agreement, the site pays the prevailing industry standard. The site also pays any benefits required by law or contract;
- b) Reward workers for overtime hours at a premium;
- c) Pay workers in monetary means only and in full.

6.8.2. The site has an effective procedure in place to ensure that workers are paid accurately and on time and that there are no wage deductions other than deductions required by law.

6.8.3. For each pay period, workers are provided with a timely and understandable pay statement that includes sufficient information to verify accurate payment for performed work.

6.8.4. The site's contracts with employment and recruitment agencies and with other external providers of workers require them to pay all workers performing activities at the site:

- a) The applicable legal minimum wage or, where there is no legal minimum wage, the prevailing industry standard, plus any benefits required by law;
- b) In monetary means only, in full and on time.

6.8.5. Where there are on-site shops, the site ensures that goods and services are not offered above the regional market price and that workers are not coerced into buying goods and services from these shops.

6.8.6. Where accommodation is provided by the site or on behalf of the site, it is offered at no more than the appropriate market rate.

6.8.7. If requested by the workers' representatives, the site commits to introduce a living wage for its workers. The commitment requires the site to:

- a) Work with the regional government, other companies and, where they exist, with trade unions to define the regional living wage, unless it has already been defined;
- b) Develop a time-bound plan to implement the living wage over time.

Guidance:

Prevailing industry standard: These might be available from the Department of Labour, the statistical bureau or other government entities of the respective country. Where this is not the case, job sites or statistics service providers might be a useful resource.

Overtime hours: ILO Convention C001 - Hours of Work (Industry) specifies that "the rate of pay for overtime shall not be less than one and one-quarter times the regular rate". This may serve as guidance for sites on how to reward overtime. However, overtime might be compensated with time rather than money.

Payment in monetary means only: This does not apply to benefits such as insurances, medical plans or stock options that might be part of the overall payment package.

Deductions required by law: These might apply for social insurance and tax provisions. There can be no deductions as a disciplinary measure and sites cannot force workers into saving schemes or runaway insurance.

Living wage: Existing living wage estimates and guidance on how to estimate the living wage can be found on the website of the Global Living Wage Coalition (<https://www.globallivingwage.org/>).

Criterion 6.9: Working time

The site complies with applicable law and industry standards on working time, overtime, public holidays and paid leave.

6.9.1. The site has a public policy stating that:

- a) Effective fatigue management is key in determining working time, shift patterns and time off for workers;
- b) Activities requiring overtime work are accepted voluntarily by workers;
- c) All workers are provided with appropriate time off for meals and breaks, demonstrating effective processes for fatigue management;
- d) The site provides all workers with paid annual leave of at least three working weeks after the worker reaches one year of service.

6.9.2. The site's contracts with employment and recruitment agencies and with other external providers of workers explicitly bind them to the provisions of the site's public policy on working time.

6.9.3. The site grants paid maternity leave of at least 12 weeks.

6.9.4. Where its activities allow this, the site offers flexi-time working and reduction of working time to care for children or other dependents.

Guidance:

Effective fatigue management: In line with ILO Convention C001 - Hours of Work (Industry), regular workweeks should not exceed 48 hours and workers should have at least one day off every seven days. However, agreements with worker organisations might stipulate something different and in the case of shift work or in exceptional circumstances (such as emergency situations or in case of fly-in, fly-out sites the weekly limitation of working hours might be exceeded as long as the site has effective processes in place to manage worker fatigue.

Maternity leave: Sites may go beyond this Requirement and offer some parental leave also to fathers. Maternity/parental leave may not necessarily be paid at 100% of the full salary, although this is considered best practice.

Interpretation on 6.9.1.b):

In some jurisdictions and under specific circumstances, the law might permit to require overtime from workers, for example in crisis situations.

Where sites can credibly demonstrate that this kind of required overtime has been agreed with unions and that it is imposed in exceptional circumstances only and in a way that takes account of the needs of vulnerable workers such as pregnant women, auditors might accept this as meeting requirement 6.9.1.b.

However, auditors should verify that the respective unions genuinely represent workers' interests and that they are

not so-called 'paper unions'. Secondly, they should verify that the provision is only applied to 'specific circumstances' as defined by law and has not become something that is regularly applied to force workers to accept conditions that they would otherwise consider unacceptable. This might be verified through interviews with worker and union representatives.

Interpretation on 6.9.1.d):

Requirement 6.9.1.d has been framed around ILO Convention C132 - Holidays with Pay. The Convention says in Article 3: 'The holiday shall in no case be less than three working weeks for one year of service'. It also says in Article 6: 'Public and customary holidays, whether or not they fall during the annual holiday, shall not be counted as part of the minimum annual holiday with pay'.

To remain in line with this ILO Convention, the required 3 weeks of paid annual leave do not include paid federal holidays.

For workers that have been with the site for less than 1 year, it is acceptable that paid federal holidays count towards the 3 weeks.

Interpretation on 6.9.3:

It is acceptable if payment for granted maternity leave comes from the government rather than the site.

Criterion 6.10: Worker well-being

The site promotes worker well-being through offers to reconcile work and private life, support the health of workers and advance their qualifications.

6.10.1. The site promotes worker well-being through the provision of measures that are aimed at reconciling work and private life, supporting the health of workers and advancing their qualifications.

6.10.2. The measures to promote worker well-being are available to all workers employed directly by the site. Workers are made aware of the measures to promote worker well-being and how to access them using languages, methods and channels that are understood and are easily accessible to them.

Guidance:

Measures to promote worker well-being: Worker use of these measures must be optional rather than mandatory. The below measures might serve as examples. Note that sites are not expected to implement all of the listed measures.

What the site offers to workers should be scaled to its size and context:

- Kindergartens at the workplace or agreements with nurseries to care for their children at regionally common

or reduced fees;

- Site canteen, restaurant cheques or other catering programmes, provided that the use of these offers do not lower worker remuneration;
- Free or reduced cost transport to workplace;
- Site-organised and paid-for cultural, sports or recreational activities for workers and their families;
- Grants, loans or subsidies for education and training offered to workers and their families at regionally common or reduced terms;
- Insurance or health programmes for workers and their families at regionally common or reduced rates;
- Care programmes in case of severe family illness or accident, including life insurance policies at regionally common or reduced rates;
- Worker pension plans at regionally common or reduced rates.

Principle 7. Human Rights

Objective:

ResponsibleSteel certified sites respect human rights wherever they operate, irrespective of their size or structure.

Background:

It has long been recognised that companies can have a profound impact on human rights. The United Nations (UN) 'Guiding Principles on Business and Human Rights' recognise this and state: "The responsibility to respect human rights requires that business enterprises:

- (a) Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur;
- (b) Seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts."

Internationally recognised human rights are laid out in the International Bill of Human Rights and in the ILO Declaration on Fundamental Principles and Rights at Work. The UN Guiding Principles on Business and Human Rights set guidelines for states and companies to prevent, address and remedy human rights abuses committed in business operations. The ResponsibleSteel Standard is designed to align with these instruments.

Sites wanting to become certified to the ResponsibleSteel Standard must understand the risks they face and know what their impacts are in relation to human rights. This will enable them to act, where necessary, to ensure that they do not contribute to human rights violations. In line with this, the ResponsibleSteel Standard takes a due diligence approach to human rights which can be summarised as: Identify, assess, act, review. Where sites operate in areas where there is a need for extensive measures to ensure security of people, property and assets, the ResponsibleSteel Standard requires a similar approach for security personnel and public and private security providers.

The ResponsibleSteel Principles on Local Communities, Labour Rights and Health and Safety also support the site's implementation of human rights, even if the term 'human rights' is not contained in their titles or in their Requirements.

Criterion 7.1: Human rights due diligence

The site acts diligently to avoid infringing on the rights of others and to address adverse human rights impacts.

7.1.1. There is a public policy on the site's commitment to respect human rights.

7.1.2. In line with a specified procedure, the site has identified and assessed the human rights-related risks and adverse impacts that it causes or contributes to. The identification and assessment of human rights-related risks and impacts is updated on a regular basis and is informed by input from internal and external stakeholders.

7.1.3. Where it causes or contributes to human rights-related risks or adverse impacts, the site implements effective procedures to identify the root causes and to define actions to prevent and mitigate these risks and adverse impacts.

7.1.4. The actions to prevent and mitigate human rights-related risks and adverse impacts are communicated to workers and local communities using languages, methods and channels that are understood and are easily accessible to them.

7.1.5. The effectiveness of the site's procedures for preventing and mitigating human rights-related risks and adverse impacts is regularly verified by a competent independent party. Where the site has been the subject of controversy in relation to human rights impacts, verification is conducted by a competent third party.

Guidance:

Human rights cover a wide range of impacts on people. There are civil and political human rights, such as the right to life, equality before the law and freedom of expression. Economic, social and cultural rights, such as the rights to work, social security and education, are also part of human rights, just like collective rights, such as the rights to development and self-determination. (Adapted from the United Nations Office of the High Commissioner for Human Rights and from United for Human Rights)

An authoritative list of the core internationally recognised human rights is contained in the International Bill of Human Rights (which consists of the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, and the International Covenant on Civil and Political Rights and its two Optional Protocols), coupled with the principles concerning fundamental rights in the eight ILO core conventions as set out in the Declaration on Fundamental Principles and Rights at Work. These are the benchmarks against which social actors assess the human rights impacts of companies. The responsibility of companies to respect human rights is distinct from issues of legal liability and enforcement, which remain defined largely by national law provisions in relevant jurisdictions. (Adapted from the UN Guiding Principles on Business and Human Rights).

It should be noted that "the environment is never specifically mentioned in the Universal Declaration of Human Rights, yet if you deliberately dump toxic waste in someone's community or disproportionately exploit their natural resources without adequate consultation and compensation, clearly you are abusing their rights. Over the past 60 years, as our recognition of environmental degradation has grown so has our understanding that changes in the environment can have a significant impact on our ability to enjoy our human rights. In no other area is it so clear that the actions of

nations, communities, businesses and individuals can so dramatically affect the rights of others - because damaging the environment can damage the rights of people, near and far, to a secure and healthy life." (Adapted from the United Nations Office of the High Commissioner for Human Rights, <https://www.ohchr.org/EN/UDHR/Pages/CrossCuttingThemes.aspx>)

Criterion 7.2: Security practice

The site does not support public or private security providers engaged in illegal practices and works to ensure that security providers respect human rights.

7.2.1. The site has a public policy on security arrangements that commits to respect human rights and public freedoms.

7.2.2. In areas where there is a need for extensive measures to ensure security of people, property and assets, the site:

- a) Analyses the options for managing risk and avoiding threat to life of workers and visitors to the site and uses armed security only when there is no reasonable alternative;
- b) Consults with the government and with local communities on security arrangements;
- c) Communicates key aspects of the security arrangements to local communities using languages, methods and channels that are understood and are easily accessible to them.

7.2.3. The site has documented procedures that cover:

- a) Screening of security personnel and public and private security providers regarding their involvement in human rights abuses and illegal practices;
- b) Regular training of security personnel and providers on their roles and appropriate behaviour;
- c) Deployment of security personnel and providers and the individuals working for them;
- d) Monitoring of security personnel and provider conduct;
- e) Investigation of allegations of human rights abuses by security providers.

Guidance:

Security arrangements and procedures: Sites may consult the Voluntary Principles on Security and Human Rights for guidance on security practices. While these have been developed for the extractives sector, they are relevant for other sectors as well. Practical guidance on how to implement the Voluntary Principles has been developed by ICMM, ICRC, IFC and IPIECA.

Extensive measures to ensure security: This refers to, for example, the use of armed security, apprehension of persons or the use of drones.

Criterion 7.3: Conflict-affected and high-risk areas

The site does not contribute directly or indirectly to armed conflict, human rights abuses or risks for workers and communities in conflict-affected or high-risk areas.

7.3.1. When operating in conflict-affected or high-risk areas, the site has a public policy confirming that it does not tolerate any direct or indirect support to non-state armed groups or their affiliates who:

- a) Illegally control mine sites, transportation routes and/or upstream actors in the supply chain;
- b) Illegally tax or extort money or minerals at point of access to mine sites, along transportation routes or at points where minerals are traded;
- c) Illegally tax or extort intermediaries, processing companies, export companies or international traders.

7.3.2. For conflict-affected or high-risk areas, the site has effective procedures in place to:

- a) Monitor its transactions, flows of funds and resources to ensure it is not directly or indirectly providing funding or support to non-state armed groups;
- b) Immediately suspend or discontinue engagement with business partners where the site has identified a reasonable risk that it is linked to any party providing direct or indirect support to non-state armed groups.

Guidance:

Conflict-affected and high-risk areas: These are identified by the presence of armed conflict, widespread violence or other risks of harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterised by widespread human rights abuses and violations of national or international law. (Adopted from the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas)

Sites are advised to use the OECD Due Diligence Guidance to identify if they are active in conflict-affected and high-risk areas.

Principle 8. Stakeholder Engagement and Communication

Objective:

ResponsibleSteel certified sites engage effectively with stakeholders, report openly on issues of importance to those parties, and remediate adverse impacts they have caused or contributed to.

Background:

Companies increasingly recognise that poor relations with stakeholders can increase business and reputational risk. The ResponsibleSteel Standard understands effective engagement between a site and its stakeholders as an inclusive and continuous process. Engagement is based on openness and fairness, and focuses on issues that are most important to the parties concerned. The process of engagement and communication can be viewed as a low priority when there is no current conflict or crisis. However, if a conflict or crisis arises, the absence of established relationships and channels of communication makes it more difficult for a site to manage the situation. For this reason, the ResponsibleSteel Standard emphasises the importance of ongoing engagement.

A stakeholder is a person or organisation that can affect, be affected by, or perceive itself to be affected by a decision or activity of a site (adapted from ISO 14001:2015(en) Environmental management systems - Requirements with guidance for use). Stakeholders can include local communities and their formal and informal representatives, indigenous peoples, national or local government authorities, politicians, trade and labour unions, civil society organisations, marginalised groups, religious leaders, or the academic community.

They also include suppliers, contractors, distributors and customers, as well as workers and contractors who depend on the site for their health and safety and livelihoods. Principle 8, however, focusses primarily on the site's engagement and communication with parties that do not hold a business or contractual relationship with the site, and with which the site may not otherwise engage in its day-to-day management.

Criterion 8.1: Stakeholder engagement

The site provides stakeholders with the means and opportunities to engage effectively on issues that matter to them.

8.1.1. The site has identified and maintains a list of stakeholders and their representatives who may be affected by or take an interest in the site's activities.

8.1.2. The site understands the interests and concerns of stakeholders and their representatives and, in particular, the legal and customary rights, interests and concerns of local communities.

8.1.3. The site consults with stakeholders and their representatives on accessible, culturally appropriate and inclusive methods of engaging them. The site undertakes efforts to understand and remove potential barriers to engagement, paying particular attention to marginalised groups.

8.1.4. The site has a plan in place for the effective engagement of stakeholders, scaled to its size and to the environmental and social risks and adverse impacts associated with its activities, including provisions to:

- a) Engage with stakeholders on a regular basis and on issues that are relevant to them;
- b) Engage in a manner that is free from manipulation, interference, coercion or intimidation;
- c) Take account of stakeholders' concerns in site management, in day-to-day business, in designing operational processes and in taking decisions that may affect them;
- d) Provide information to stakeholders in a manner that is timely, easy to understand and comprehensive enough for them to assess the matter at hand;
- e) Provide feedback to stakeholders on how significant concerns have been taken into account by the site.

8.1.5. The site keeps records of the key activities it undertakes to implement its stakeholder engagement plan, of material inputs it receives and actions taken in response.

8.1.6. The site's plan for engagement with stakeholders and the outcomes of engagement are regularly reviewed by senior management.

Guidance:

The International Finance Corporation's (IFC) Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets can help companies plan and design their stakeholder engagement work.

Guidance Note 1 on the IFC Performance Standards on Environmental and Social Sustainability provides guidance on stakeholder engagement as well.

Another useful resource is the AA1000 AccountAbility Stakeholder Engagement Standard. It is a global standard that supports organisations in assessing, designing, implementing and communicating an integrated approach to stakeholder engagement.

Sites should pay particular attention to marginalised groups when planning and implementing their stakeholder engagement work. Depending on the site's context, marginalised groups may be indigenous peoples, minorities, women, etc. IFC Guidance Note 7 provides useful advice on how to engage with indigenous peoples.

Stakeholder engagement plan: The purpose of a stakeholder engagement plan is to describe a site's strategy and programme for engaging with stakeholders (adapted from IFC). Stakeholder engagement may be conducted by different departments of the site who can be the owners of their topic-specific engagement processes. As such, the stakeholder engagement plan does not have to be an integrated stand-alone document. What is important though is that stakeholder engagement happens in a coordinated fashion across departments to ensure that it is not counterproductive. The plan should contain indicators to measure the quality of stakeholder engagement and the impact of engagement. Examples for indicators include the number of meetings or engagement points with stakeholders, or the number of grievances raised and resolved. Further examples can be found in IFC Guidance Note 1, Annex C.

Criterion 8.2: Grievances and remediation of adverse impacts

The site offers a grievance mechanism to address concerns and engages in remediation where it has caused or contributed to adverse impacts.

8.2.1. The site has a documented and effective grievance mechanism that:

- a) Is readily accessible to all stakeholders at no cost;
- b) Includes an explanation of how the site will consider concerns or grievances that are raised, describing the process, responsibilities, contact details, approximate timeframe and how the party raising the issue will be informed of outcomes;
- c) Gives due consideration to local customs, traditions, rules and legal systems;
- d) Ensures confidentiality and can be used without fear of retaliation. Where this is legally acceptable, the mechanism can be used to register issues in an anonymous manner.

8.2.2. The site takes measures to ensure that stakeholders are aware of the grievance mechanism.

8.2.3. The site has documented procedures to:

- a) Register any issues raised;
- b) Determine a process to evaluate the issue and develop its response, in consultation with the party raising the concern, if that party is known;
- c) Document its response in line with its defined process and provide its response to the party raising the concern, if that party is known.

8.2.4. Where concerns have been raised that the site has caused or contributed to adverse human rights impacts:

- a) The concerns are reviewed to determine if they are indeed related to human rights;
- b) Where this is the case, the process for evaluation and response includes the participation of a competent third party.

8.2.5. The site cooperates in legitimate processes for consideration of remediation, and if it is determined that the site has caused or contributed to adverse human rights, community health or safety impacts, the site provides for remediation and ceases or changes the activity that was responsible for the impact.

8.2.6. The site involves local communities in monitoring and verifying that commitments made in response to grievances are implemented appropriately.

Guidance:

Sites have many environmental and social impacts and so concerns and potential grievances by stakeholders are to be expected. How a site responds to them or is perceived to be responding can have significant implications for business performance and for stakeholders. The site's grievance mechanism should be scaled to fit its level of risks and adverse impacts. It should flow from the site's broader stakeholder engagement process and business integrity principles and integrate the various elements of engagement. Having a good stakeholder engagement process in place can help prevent grievances from arising or from escalating to a level that can harm the site's performance. As the Requirement says, the grievance mechanism has to be accessible to all stakeholders. Where a stakeholder goes to the trouble of accessing and utilising one of the site's official grievance mechanism channels, their concern is worth consideration by the site. This means that the grievance mechanism has to cover all grievances submitted via the site's official channels. However, sites are not expected to respond to each and every negative post they receive via social media. Where a well-functioning community-based grievance mechanism exists, the site may build on that for its own purposes.

Sites should consult the United Nations Guiding Principles on Business and Human Rights for the design of a grievance mechanism. Legitimate processes for remediation should be in line with the UN Guiding Principles.

The following guidelines might also be useful for sites: ISO 10002:2018 Quality management - Customer satisfaction -- Guidelines for complaints handling in organizations.

Criterion 8.3: Communicating to the public

The site communicates on material social and environmental issues in a consistent and balanced manner, using methods that are appropriate to its stakeholders.

8.3.1. In consultation with stakeholders, the site has identified which social and environmental topics are material to them.

8.3.2. The site collects information on material topics and verifies the accuracy of that information in line with a documented process.

8.3.3. The site:

- a) Regularly makes information on material topics available to the public at no cost and at intervals that are frequent and timely enough for stakeholders to act on the provided information;
- b) Uses communication methods that are easily accessible to the public and that reflect prevailing cultural habits;
- c) Includes positive and negative aspects of site performance, where relevant, in its communication;
- d) Includes actions the site has taken or plans to take with respect to the identified material topics;
- e) Ensures comparability of information between reporting cycles;

Note that some Principles of the ResponsibleSteel Standard contain specific reporting Requirements that are in addition to the generic Requirements outlines above.

Guidance:

Reporting should be sufficiently detailed for stakeholders to understand the site's performance and should be done in a manner that is easy to understand, even for individuals with no technical knowledge of the subject at hand.

Easily accessible: For example, in areas with widely available internet access, online reporting is appropriate. In areas where this is not the case, more suitable forms of communication should be chosen. Sites should consider whether their forms of communication might disadvantage certain groups and ensure that these groups can access their information as well.

Sites should consult recognised reporting frameworks provided by the **Global Reporting Initiative (GRI)**, the **International Integrated Reporting Council (IIRC)** and others to understand what and how to communicate.

Recommended topics for reporting: The following is a list of topics that sites should consider covering in their public reporting.

In relation to Principle 1 and 2:

- Code of ethical conduct or similar
- Corruption incidents and how they were addressed
- The site's political engagement activities;

- The total monetary value of political contributions made directly and indirectly, as well as recipients and beneficiaries of contributions;
- The site's main social, environmental and governance risks and adverse impacts, associated key performance indicators and the site's performance in relation to these;
- Status of implementing the site's responsible sourcing commitment;
- Non-compliance incidents and how they were addressed;
- Competence management activities.

In relation to Principle 4:

- Where relevant, planned or ongoing closure and decommissioning activities;
- Progress or lack thereof in implementing any closure and decommissioning plans.

In relation to Principle 5:

- Incidents of work-related injury, illness or death;
- OH&S objectives and targets;
- Performance in relation to OH&S leading and lagging indicators.

In relation to Principle 6:

- Incidents related to child labour, forced or compulsory labour or human trafficking and how they were addressed;
- Incidents of discrimination and how they were addressed.

In relation to Principle 7:

- Adverse human rights impacts and how they were addressed;
- Incidents in relation to non-state armed groups.

In relation to Principle 8:

- Activities related to the implementation of the stakeholder engagement plan;
- Number and types of received grievances, the proportion of grievances that have been resolved to the complainant's satisfaction;
- Remedy processes the site is engaged in, including the nature of the complaints, the channels used to address them and the forms of remedy provided.

In relation to Principle 9:

- Measures to support community well-being;
- Outcomes of any FPIC processes;
- Where relevant, displacement and resettlement activities and provided compensation, as well as the results of

completion audits of any Resettlement Action Plan and/or Livelihood Restoration Plan;

- Where relevant, impacts on cultural heritage and how they were addressed.

In relation to Principle 10:

- Principle 10 contains specific reporting Requirements that sites have to meet.

In relation to Principle 11:

- NOx, SOx, ducted dust and any other emissions with adverse impacts;
- Spills and leakage incidents and actions taken to mitigate and remedy them;
- Actions taken to reduce emissions;
- Progress or lack thereof in achieving emission reduction targets.

In relation to Principle 12:

- Impacts of the site's water use;
- Quality of water discharge volumes by discharge point;
- Progress or lack thereof in achieving water-related targets.

In relation to Principle 13:

Where they occur in the site's area of influence:

- Protected and community-conserved areas;
- Ramsar sites;
- Species on the IUCN Red List of Threatened Species (categorised as vulnerable, endangered or critically endangered);
- Key Biodiversity Areas;
- Natural and critical habitat, modified habitat with significant biodiversity value;
- Outcomes of activities to manage the site's biodiversity and ecosystem services impacts;
- Results of biodiversity monitoring.

Principle 9. Local Communities

Objective:

ResponsibleSteel certified sites respect the rights and interests of local communities, avoid and minimise adverse impact and support community well-being.

Background:

Sites have a relationship with the communities in which they operate. Community involvement helps strengthen civil society and sites that engage with their local communities and its institutions in a respectful manner reflect and reinforce democratic and civic values. Community involvement and development are both integral parts of sustainable development.

The Local Communities Principle is closely related to human rights. It acknowledges the distinct rights of indigenous peoples and requires sites to apply the concept of free, prior and informed consent where they operate in proximity to indigenous peoples, whether they are formally recognised as such or self-declared. The Standard goes beyond community engagement in that it asks sites to support their local communities, recognising that the site is itself a stakeholder in its own community and shares common interests with it. Beyond this empowering element in the Standard, sites must also respect the civil, economic, social and cultural rights that community members possess.

Community issues are also considered under the following Principles:

- Stakeholder Engagement and Communication
- Occupational Health and Safety (Emergency Preparedness and Response, in particular)
- Human Rights.

Impacts on communities are also covered in the Principles on Closure and Decommissioning, Noise, Emissions, Effluents and Waste, Water Stewardship and in the Criterion on Emergency preparedness and response.

Criterion 9.1: Commitment to local communities

The site is committed to respecting the health and safety, and the legal and customary rights and interests of local communities and supports their social and economic well-being.

9.1.1. The site has a public commitment to:

- a) Safeguard the legal and customary rights and interests, cultures, customs and values of local communities regarding lands, their use of natural resources and their livelihoods;
- b) Maintain or improve the social and economic well-being of local communities affected by the site's operations.

9.1.2. In consultation with local community and local government representatives, the site has developed a plan to implement its commitment to maintaining or improving the social and economic well-being of local communities. The plan:

- a) Outlines individual measures that the site's management will take or support;
- b) Contains implementation timelines and the resources that will be made available for implementation;
- c) Explains how the support will contribute to the self-sustainment of the institutions, initiatives or projects receiving the support;
- d) Shows that consideration has been given to marginalised community members;
- e) Is made public in a clear and understandable manner, using channels that are easily accessible for local communities.

9.1.3. Together with local community and local government representatives, implementation of the plan is monitored and the plan is adjusted where needed to ensure it supports the social and economic well-being of the local communities affected by the site's operations.

Guidance:

Note that Requirements 8.1.2. and 8.1.3 of Principle 8 (understanding the interests and concerns of stakeholders and identifying engagement methods) should inform how sites address Criterion 9.1.

Local communities: Indigenous peoples are part of local communities. Consequently, this Principle includes consideration of indigenous peoples where they are affected by the site's activities, even if they are not singled out in the wording of the Requirements. The term "indigenous peoples" is understood as described in Article 1 of ILO Convention 169.

Marginalised community members: People can be marginalised in many ways, with marginalisation embracing factors such as material deprivation, inadequate housing, low educational levels, high unemployment, poor health as well as discrimination and prejudice (Adapted from European Commission Briefing 'Cohesion policy and marginalised communities').

Plan for maintaining or improving community well-being: The plan is expected to be proportionate to the specific

context. In communities that are highly developed and affluent, the plan might be less comprehensive or might be bound to specific events such as changes in production or permit processes.

Examples of measures (9.1.2.a.) are:

- Local procurement, local business and local employment creation and support, as well as local capacity building and skills development;
- Financial or in-kind contributions, time or human resources support to local social service institutions (e.g. hospitals, schools, vocational centres) or to social, cultural, sports or environmental projects and activities;
- Help in building community capacity to oversee and sustain projects or initiatives with the aim of making them self-sustaining.

Measures to maintain or improve the social and economic well-being of local communities should focus on enabling communities in the long-term rather than creating dependency on financial contributions by the site.

Resources for implementation: Note that these might be come from the site and from other parties such as the (local) government. The resources might be financial and other kinds of resources such as human resources, material, etc.

Criterion 9.2: Free, Prior and Informed Consent (FPIC)

Where the site considers activities that might affect the rights of indigenous peoples, the site obtains the peoples' free and informed consent prior to undertaking such activities.

9.2.1. Where new activities or changes to existing activities are planned, the site and affected indigenous peoples agree and document a process for obtaining FPIC that is consistent with the indigenous peoples' traditional decision-making processes while respecting internationally recognised human rights.

9.2.2. The site achieves FPIC prior to the approval of new activities or changes to existing activities that might affect the lands, natural resources or cultural heritage that are subject to traditional ownership or under customary use by indigenous peoples.

9.2.3. The outcomes of the negotiations and any agreements reached between the site and the affected indigenous peoples are documented and approved by the parties as outlined in the FPIC process and are made accessible to the members of the affected indigenous peoples.

Guidance:

The Criterion on Free, Prior and Informed Consent applies to indigenous peoples, whether they are formally recognised as such or self-declared.

Free, prior, informed:

- Free implies that there is no coercion, intimidation or manipulation.
- Prior implies that consent is to be sought sufficiently in advance of any authorisation or commencement of activities and respect is shown to time requirements of indigenous consultation/consensus processes.
- Informed implies that information is provided that covers a range of aspects, including the nature, size, pace, reversibility and scope of any proposed project or activity; the purpose of the project as well as its duration; locality and areas affected; a preliminary assessment of the likely economic, social, cultural and environmental adverse impact, including potential risks; personnel likely to be involved in the execution of the project; and procedures the project may entail. This process may include the option of withholding consent. Consultation and participation are crucial components of a consent process.

(Adopted from Office of the United Nations High Commissioner for Human Rights)

The site achieves FPIC prior to the approval of new activities or changes to existing activities: Given the diversity of situations and contexts there is no simple or universal way of carrying out an FPIC process. A lot of guidance has been developed on FPIC that may help sites apply the FPIC concept. For example, the FAO Manual 'Free Prior and Informed Consent. An indigenous peoples' right and a good practice for local communities'. Not all indigenous communities might want to attach an FPIC 'label' to the process and to the agreement they reach with a site. Where this is the case, it is still crucial that the process and agreements were undertaken and reached in a free, prior and informed manner as described above. Note that FPIC does not necessarily require unanimity and may be achieved even when individuals or groups within the community explicitly disagree.

Where FPIC was not obtained in the past, sites must demonstrate that they are operating in a manner that seeks to achieve the objectives of this Criterion. For example, sites may demonstrate that they have the free and informed consent of indigenous peoples for current operations by providing evidence of signed or otherwise verified agreements, or, in the absence of agreements, demonstrate that they have a process in place to respond to past and present concerns by indigenous peoples and to remedy and/or compensate for past impacts on indigenous peoples' rights and interests. In alignment with this Criterion, such processes should have been agreed to by indigenous peoples and evidence should be provided that agreements are being fully implemented by the site.

This Criterion is not intended to reduce the primary responsibility of a State to consult with indigenous peoples in order to obtain their FPIC and protect their rights. However, in the absence of national laws, or in the exercise of their right to self-determination, some indigenous peoples may wish to engage with a site without State involvement.

Where national FPIC laws exist, the site shall abide by those laws. Where a State has established a legislative framework that requires or enables agreements between companies and indigenous communities, it may not be necessary for a site

to run a parallel FPIC process based on this Criterion. It would, however, be necessary for a site to demonstrate to ResponsibleSteel auditors that the process whereby the agreement was reached conformed with the ResponsibleSteel FPIC requirements and met the general intent of the FPIC Criterion.

Criterion 9.3: Cultural heritage

The site respects and safeguards cultural heritage within its area of influence.

9.3.1. The site has a documented procedure for identifying and dealing with cultural heritage sites and values in its area of influence that:

- a) Has been developed in consultation with affected communities;
- b) Follows the mitigation hierarchy of avoiding, minimising, restoring and offsetting adverse impacts from the site's activities;
- c) Ensures continued access rights for affected communities to cultural sites or values.

9.3.2. The procedure is implemented in a collaborative effort by the site and affected communities.

9.3.3. Where critical cultural heritage exists in the site's area of influence, the site does not remove, significantly alter or damage it or instruct another party to do so, unless the affected communities request its removal for the purpose of protection and preservation.

9.3.4. Where cultural heritage sites or values of indigenous peoples may be impacted, the site applies the FPIC process (see Criterion 9.2).

9.3.5. Where impact on cultural heritage occurs, the effectiveness of mitigation measures is monitored and actions to address any issues are defined and implemented by the site in cooperation with affected communities.

Guidance:

'Cultural heritage' should be understood as defined by the Environmental and Social Performance Standards of the International Finance Corporation (IFC).

Cultural heritage refers to (i) tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.

Critical cultural heritage consists of one or both of the following types of cultural heritage: (i) the internationally recognised heritage of communities who use, or have used within living memory the cultural heritage for long-standing

cultural purposes; or (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation.

The Requirements of this Criterion apply to cultural heritage regardless of whether or not it has been legally protected or previously disturbed. (Adopted from IFC Performance Standard 8, IFC Performance Standards on Environmental and Social Sustainability)

Criterion 9.4: Displacement and Resettlement

The site strives to avoid the need for displacement or resettlement but, where unavoidable, minimises its scope and the resulting adverse impacts.

9.4.1. Where physical and economic displacement of communities is being considered, the site develops a procedure to:

- a) Identify and assess the risks and potential adverse impacts of that displacement on affected community members;
- b) Consider alternative operational set-ups to avoid or minimise physical and economic displacement;
- c) Include affected communities in the process, paying particular attention to marginalised community members.

9.4.2. When physical displacement is unavoidable, the site develops a Resettlement and Compensation Action Plan in consultation with the affected communities.

9.4.3. When economic displacement is unavoidable, the site develops a Livelihood Restoration Plan in consultation with the affected communities.

9.4.4. The site applies the compensation standards outlined in the Resettlement and Compensation Action Plan and in the Livelihood Restoration Plan consistently to all affected community members and ensures that compensation is completed by the time of the displacement.

9.4.5. When indigenous peoples are involved, the site applies the FPIC process (see Criterion 9.2).

9.4.6. The site monitors implementation of the Resettlement and Compensation Action Plan and the Livelihood Restoration Plan together with affected communities. Where necessary, the site modifies Plan implementation to ensure that livelihoods, livelihood security and living standards are improved or restored.

9.4.7. The site commissions a competent third party to conduct a completion audit of the Resettlement Action Plan and Livelihood Restoration Plan to verify that mitigation measures have been adequately implemented and communicates the audit results to the public.

Guidance:

Resettlement and Compensation Action Plan and Livelihood Restoration Plan: These are to be developed in line with the IFC Performance Standard 5.

Note that the Requirements of Criterion 9.4 apply to Displacement and Resettlement being considered or taking place in the ten years prior to applying for ResponsibleSteel certification. Where displacement and/or resettlement occurred earlier than that, the site is not expected to meet all the Requirements of this Criterion. However, where this is the case, the site must have undertaken an evaluation of the outcomes of displacement and resettlement activities and, if necessary, take steps to restore or improve the living conditions and livelihoods of those affected.

Existing sites will usually not lead to physical displacement, so this Criterion may only be partially relevant or may not be relevant at all. Note that Principle 4 covers site Closure and Decommissioning, which may be related to economic displacement covered here under Principle 9.

Principle 10. Climate Change and Greenhouse Gas Emissions

Objective:

The corporate owners of ResponsibleSteel certified sites are committed to achieving the goals of the Paris Agreement. The actions needed to achieve these goals are being implemented at corporate and site levels in line with ambitious targets to greenhouse gas (GHG) emission reduction targets. Sites measure and disclose their GHG emissions. Sites producing crude steel determine the GHG emissions intensity for its production on an internationally consistent basis including their direct (Scope 1), indirect (Scope 2) and upstream indirect (Scope 3) emissions associated with the extraction, processing and transportation of input materials. The GHG emissions intensity performance of sites producing crude steel is disclosed, allowing downstream users and specifiers of steel, policy makers and other stakeholders to support steelmakers in their efforts to reduce the GHG emissions of the steel sector through product specifications, purchasing commitments, financing and investment decisions, policy and other measures.

Background:

The United Nations recognises climate change caused by man-made emissions of greenhouse gases as the defining issue of our time, and its Sustainable Development Goal 13 urges countries to take urgent action to combat climate change and its impacts.

The steel industry, responsible for between 7% and 9% of direct GHG emissions from the global use of fossil fuel⁴, has a critical role and responsibility both in relation to the reduction of GHG emissions associated with steelmaking, and in the supply of the materials that will be needed to achieve the transition to a net zero carbon economy.

The requirements of ResponsibleSteel Principle 10 are written to support the Paris Agreement of the parties to the United Nations Framework Convention on Climate Change. The agreement recognises the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge, and aims to strengthen the global response in the context of sustainable development and efforts to eradicate poverty, including by:

- a. Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change
- b. Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
- c. Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

The standard requires that companies that wish to benefit from ResponsibleSteel certification of their sites must be able to demonstrate their commitment to the goals of the Paris Agreement through the development of science-based targets for the

⁴ Steel's contribution to a low carbon future and climate resilient societies - worldsteel position paper © World Steel Association 2019 ISBN 978-2-930069-83-8

reduction of their greenhouse gas emissions. The public policy environment is critically important to steelmakers' ability to achieve this objective, and requires that companies identify and then engage to achieve the necessary policy changes. Recognising the need for effective corporate leadership, the standard requires that companies implement the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

Long-term company level targets must be translated into specific targets and plans to reduce GHG emissions at the level of individual sites, and GHG emissions must be measured and monitored at site level to determine whether targets are being met.

Sites that wish to market or sell ResponsibleSteel certified steel must achieved a minimum threshold level of performance for the intensity of GHG emissions for the production of crude steel. The threshold level of performance is determined in accordance with internationally consistent GHG accounting rules which require that all significant greenhouse gases must be taken into account, including methane as well as CO₂. The GHG emissions associated with the extraction, transportation and processing of input materials must be included, as well as the site's direct emissions and the indirect emissions associated with its energy use.

Of key importance, the standard defines GHG emissions intensity performance having taken account of the proportion of scrap that is used as input material, ensuring that it is globally applicable and does not simply divert the limited supply of scrap from one use or user to another, without achieving GHG emission reductions for the sector as a whole.

The standard defines and distinguishes between four levels of performance from a basic threshold for ResponsibleSteel certification (level 1) through to the production of 'near zero' steel (level 4), allowing steel users, specifiers and policy makers to design their own specifications, commitments and incentives to maximise the speed of the steel sector's transition to the production of 'near zero' steel.

Finally, the standard requires that any ResponsibleSteel certified product must be accompanied with a declaration of its product carbon footprint, in accordance with existing standards. This allows downstream users to track the total embodied carbon associated with their use of steel at a project or company level, in line with their own net zero GHG emission targets.

Criterion	Summary of Requirements	Must be met for 'site certification'	Must be met to sell 'certified steel'
8.1	<ul style="list-style-type: none"> The corporate owner has published a science-based target to reduce the company's GHG emissions in line with the achievement of the goals of the Paris Agreement 	✓	✓
8.2	<ul style="list-style-type: none"> The corporate owner is implementing the recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD) 	✓	✓
8.3	<ul style="list-style-type: none"> GHG emissions are measured at the site level using a recognised international or regional standard 	✓	✓
8.4	<ul style="list-style-type: none"> Site level GHG emissions are measured from 'cradle to crude steel' following internationally consistent scope boundaries and GHG accounting rules 		✓
8.5	<ul style="list-style-type: none"> GHG emissions reduction targets are in place and are being implemented at the site level 	✓	✓
8.6	<ul style="list-style-type: none"> The site has achieved at least the ResponsibleSteel threshold level of performance for the GHG emissions intensity of its production of crude steel The GHG emissions intensity performance for the site is disclosed, tracking progress towards 'near zero' GHG emissions The product carbon footprint for all ResponsibleSteel certified products is determined and disclosed in line with a recognised international or regional standard 		✓
8.7	<ul style="list-style-type: none"> Key site level information published on the ResponsibleSteel website, including: <ul style="list-style-type: none"> Site level GHG emissions data and decarbonisation target Site level GHG emissions intensity performance data and performance level Product level carbon footprint data available to customers 	Site level emissions & reduction targets only	✓

Figure 1. Summary of Principle 10 Requirements

Criterion 10.1: Corporate commitment to achieve the goals of the Paris Agreement

The site's corporate owner has defined and is implementing a long- and medium-term strategy to reduce its greenhouse gas (GHG) emissions to levels that are compatible with the achievement of the goals of the Paris Agreement, with an aspiration to achieve net-zero GHG emissions through work with policy makers and others.

10.1.1. The site's corporate owner ascribes publicly to a credible, long-term emissions reduction pathway for the steel industry as a whole that is compatible with the achievement of the goals of the Paris Agreement, and which includes:

- a. Explicit projections of long-term steel consumption;
- b. Explicit projections for the production and use of primary as well as scrap steel, and the associated GHG emissions; and
- c. Explicit assumptions in relation to the public policy and other key conditions on which it is based.

10.1.2. The site's corporate owner has defined and made public both a long-term emissions reduction pathway and a medium-term, quantitative, science-based GHG emissions target or set of targets for the corporation as a whole. The corporation's emissions reduction pathway and medium-term target(s) are compatible with the long-term emissions reduction pathway it ascribes to for the steel industry, and the projections for the production of primary as well as scrap steel as applicable to its own portfolio of sites.

10.1.3. The site's corporate owner has a credible, documented strategy for the achievement of its corporate level GHG emissions target(s), outlining the timeline for change across its portfolio of sites and identifying the conditions that would need to be in place for the successful implementation of the strategy, and the specific actions, including policy engagement, it is committed to take to help bring these conditions about.

10.1.4 The corporate owner reviews the implementation of its strategy on a regular basis, documents the findings of the review, and updates the strategy to take account of the review's findings.

10.1.5 The review shows that the corporate owner is implementing its strategy effectively over time.

Guidance:

(10.1.1) An emissions reduction pathway for the steel industry that is compatible with the goals of the Paris Agreement is one which limits the global average temperature to well below 2°C above pre-industrial levels and supports efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

(10.1.1) Long-term in this context means a time horizon of 15 to 35 years.

(10.1.2) Medium-term in this context means a time horizon between 5 and 15 years from the present time.

(10.1.1, 10.1.2) Medium- or long-term refers to the time measured from the start of the relevant implementation period. For example, a ten-year (medium-term) target set seven years ago is still valid even if it has only three years still to run. However, if a medium-term target expires during the period of validity of a certificate, this would create a non-conformity with the requirement of the standard unless it is replaced by an updated medium-term target.

(10.1.2) A technically justified and publicly accessible 2050 net zero emissions target supported by a medium- and long-term transition pathway for the company would be sufficient to meet the requirements of 10.1.2. A science-based target (SBT) validated by the SBTi (Science Based Targets initiative) would be sufficient to meet the medium-term requirements of 10.1.2. Other quantitative, scientifically justified targets (or sets of targets, for example for separate processes) may also be recognised, as long as the ambition, quality and coverage of the target is comparable.

(10.1.3) Specific actions may also include investments at the corporate or site levels, R&D, building of pilot facilities to develop, test and scale up new technologies, proposition to seek funding through 'green bonds', general commitments to upgrade sites over a period of time, supply chain collaborations, etc.

Criterion 10.2: Corporate Climate-Related Financial Disclosure

The site's corporate owner is implementing the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

10.2.1. The site's corporate owner has allocated responsibility for oversight of climate-related risk and opportunity to at least one board committee, with an understanding that material climate-related risks and opportunities that impact business strategy will need to be discussed at the full board level.

10.2.2. The site's corporate owner has a documented commitment in place to implement the core recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) according to its four pillars - Governance, Strategy, Risk Management, and Metrics and Targets - in accordance with applicable TCFD guidance, within three years of the date of application for the site's certification.

Guidance:

Implementation in accordance with applicable TCFD guidance requires that the corporate owner makes the recommended disclosures associated with the four core recommendations. For detailed guidance see:

Task Force on Climate-Related Financial Disclosures (TCFD): Final Report: Recommendations of the Task Force on Climate-Related Financial Disclosures, June 2017.

Task Force on Climate-Related Financial Disclosures (TCFD): Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures (2021). (https://assets.bbhub.io/company/sites/60/2021/07/2021-TCFD-Implementing_Guidance.pdf)

This 2021 "Annex" provides both general and sector-specific guidance on implementing the Task Force's disclosure recommendations. It updates and supersedes the 2017 version of Implementing the Recommendations of the Task

Force on Climate-related Financial Disclosures. Updates reflect the evolution of disclosure practices, approaches, and user needs.

Task Force on Climate-related Financial Disclosures: Guidance on Metrics, Targets, and Transition Plans (2021): https://assets.bbhub.io/company/sites/60/2021/07/2021-Metrics_Targets_Guidance-1.pdf

The ResponsibleSteel period of certification is three years. Corporations which have not implemented the TCFD recommendations within three years of the date on which their first site achieved certification would not be issued with any further certificates until the TCFD recommendations have been implemented. The failure would also jeopardise the maintenance of any certificates previously issued to the corporate owner.

Criterion 10.3: Determination of GHG emissions for the purpose of site level GHG emissions reduction targets and planning

The site measures and records key aspects of its GHG emissions in accordance with a recognised international or regional standard.

10.3.1. The total direct GHG (CO₂ e) or CO₂ emissions for the site are measured, recorded and verified in accordance with the requirements of an applicable, recognised international and/or regional standard.

10.3.2. There is a system in place to estimate the total GHG emissions (CO₂ e) associated with the generation of electricity, heat and steam imported to the site from outside the site boundary.

10.3.3. There is a system in place to estimate the total GHG emissions (CO₂ e) associated with materials imported to the site from outside the site boundary.

10.3.4. For sites that produce crude steel, the GHG emissions intensity for the crude steel produced (metric tonnes of CO₂ e/ metric tonne crude steel) is calculated in accordance with the requirements of an applicable, recognised international and/or regional standard.

Guidance:

(10.3.1) 10.3.1 refers to the direct (Scope 1) GHG emissions of the site (see glossary)

(10.3.1) ResponsibleSteel currently recognises the following international or regional standards for this purpose:

The GHG Protocol and EN 19694 (parts as applicable) for measurement of GHG emissions by steelmaking and other sites. ISO 14404 (parts as applicable) for the measurement of CO₂ emissions by steelmaking sites, as applicable.

(10.3.2) 10.3.2 refers to the energy indirect (Scope 2) GHG emissions of the site (see glossary)

(10.3.3) 10.3.3 refers to the upstream indirect (Scope 3) GHG emissions of the site (see glossary)

(10.3.3) The system to assess upstream emissions should include a screening of imported materials to identify those that may be associated with significant GHG emissions such as mined materials or hydrogen where relevant.

(10.3.3) The site must provide an explanation of the basis for the calculation, including a listing of the input materials that have been included and excluded from the calculation, and the use of primary data, emission factors or other secondary data where used.

(10.3.3) As a minimum, the site must consider the GHG emissions associated with the materials listed in Annex 10 of this Standard where used (from ISO 14404-1:2013 Table 2 and ISO 14404-2:2013 Table 2) and other materials that may be associated with significant GHG emissions. A material's GHG emissions are not considered to be significant if there is

evidence that they are likely to constitute less than 5% of the total GHG emissions associated with all of the materials imported to the site from outside the site boundary.

(10.3.3) The estimate may make use of emission factors such as those referenced in ISO14404 or from other secondary sources where no other reliable data are available. Where such secondary data or emission factors are used, these data must be referenced in the public report specified in 10.7.1 below. More resources should be committed to estimating the more significant sources of emissions, for example through the collection of primary emissions data from suppliers.

(10.3.3 & 10.3.4) In cases where direct reduced iron (DRI), granulated pig iron (GPI), hot briquetted iron (HBI), pig iron or steel (other than scrap metal itself) is imported to the site from upstream sites, the associated GHG emissions must be accounted for using primary data specific to the input material's site of production if this is available. If primary data is not available the default upstream emission factors for the category of input material as specified on the ResponsibleSteel website (see Annex 11, Table A1 of this standard for provisional values) may be used. The site must ensure that GHG emissions associated with imported iron or steel are clearly and explicitly included in the calculations of GHG emissions.

Criterion 10.4: Determination of site level GHG emissions for the purpose of reporting the GHG emissions intensity for the production of crude steel.

In order to market or sell its steel or other products as 'ResponsibleSteel certified' the site measures and records key aspects of its GHG emissions in accordance with the specifications of this Criterion, in addition to the requirements of Criterion 10.3.

10.4.1 GHG emissions data – general requirements.

a. The determination of GHG emissions includes consideration of the emissions of carbon dioxide (CO₂), methane (CH₄), nitrogen trifluoride (NF₃), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆), using Global Warming Potential (GWP) values relative to CO₂ (CO₂e) with a 100-year time horizon as published in the most recently published IPCC Assessment Report.

b. The unit of measurement for GHG emissions is tonnes CO₂ equivalent (CO₂ e).

c. The data for the determination of the GHG emissions intensity for crude steel production as specified in this Criterion 10.4 have been independently verified in accordance with the requirements of *ISO 14064-3:2019, Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements, to either the 'reasonable level of assurance' or the 'limited level of assurance'*.

Guidance:

Conformity with the requirements of Criterion 10.4 is mandatory for all sites that wish to market or sell products as ResponsibleSteel certified. Conformity is voluntary for other ResponsibleSteel certified sites.

The requirements of Criterion 10.4 differ in some respects from the requirements of other regional or international standards recognised by ResponsibleSteel in relation to Criterion 10.3. Where definitions or requirements specified in this Criterion conflict with the specifications of other international or regional standards adopted by the site, the definitions or requirements specified in this Criterion take precedence for the purposes of calculating the GHG emissions intensity for products that are to be marketed or sold as ResponsibleSteel certified (see Criterion 10.6 and Criterion 10.7).

Sites that plan to market or sell products as ResponsibleSteel certified in the future are recommended to align their systems for the determination and reporting of GHG emissions with the requirements of this Criterion as soon as possible.

Where companies or sites report GHG emissions results determined using different methodologies they should provide an accompanying explanation for any resulting differences in the reported figures.

(10.4.1.a) The GHGs listed in 10.4.1.a are as specified in the GHG Protocol (revised edition, 2015). The potential influence of all the listed GHGs must be considered. If an initial review shows that the potential influence of a particular GHG is not material (less than 0.5% of the direct (Scope 1) GHG emissions (CO₂e) for the site or less than 5% of the total embodied GHG emissions for a source of upstream indirect (Scope 3) GHG emissions then it is not required to include further consideration of that GHG in the determination of the site’s GHG emissions. The 100-year time horizon is used for consistency with most other GHG measurement methodologies and data. The potential to move to 20-year time horizons will be kept under review.

The GWP factors for the major greenhouse gases as specified in the most recent IPCC Assessment Report 6 (Table 7.SM.7) for 20-year and 100-year time horizons are as follows:

species	GWP-20	GWP-100
carbon dioxide (CO ₂)	1.	1.
methane (CH ₄)	81.2	27.9
nitrous oxide (N ₂ O)	273	273

GWP factors for other GHGs are listed in the IPCC Assessment Report 6 Table 7.SM.7.

(10.4.1.c) *ISO 14064-3:2019 Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements* defines two possible levels of assurance: verification at a ‘reasonable level of assurance’, and verification at a ‘limited level of assurance’. Verification must be provided at least at the ‘limited level of assurance’. Under 10.7.1 the site is required to report the level of assurance provided.

GHG accounting rules should be applied consistently with the aim to provide a true picture of the total annual GHG emissions for the production of steel. For example, emissions for material such as sinter produced on site might be allocated to steel production at the time the sinter is produced, or at the time the sinter is used for the production of steel. Whichever approach is adopted it must be applied consistently over time.

10.4.2 Scope boundaries

a. The scope boundary for the determination of the GHG emissions for the production of crude steel at the site includes:

- Direct (Scope 1) GHG emissions (see 10.4.3)
- Energy indirect (Scope 2) GHG emissions (see 10.4.4)
- Upstream indirect (Scope 3) GHG emissions (see 10.4.5), including GHG emissions associated with:
 - Material extraction
 - Material preparation and processing
 - Transportation

b. The end point of the scope boundary for the determination of the total GHG emissions for the production of crude steel, and therefore for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance, is the point at which crude steel is first produced. GHG emissions associated with further processing of the crude steel after casting (for example, hot rolling, cold rolling, coating) are not included for this purpose.

c. The scope boundary for the determination of the product carbon footprint for steel products, co-products and by-products exported from the site is defined in accordance with the applicable international or regional standard(s) used

(see 10.6.4).

Guidance:

(10.4.2.b) Downstream indirect (Scope 3) GHG emissions outside the site boundary do not need to be considered, with the exception of emissions associated with the disposal of waste (see 10.4.6.e).

(10.4.2.b, 10.4.2.c) The end point of the scope boundary for the determination of the product carbon footprint for steel products, co-products and by-products exported from the site may be different to the end point of the scope boundary for the determination of the site's ResponsibleSteel crude steel GHG emissions intensity performance. GHG emissions associated with the further processing of crude steel after first casting should be accounted for and recognised in the determination of the product's product carbon footprint.

10.4.3 Direct (Scope 1) GHG emissions

a. The direct (Scope 1) GHG emissions for the site are measured, recorded and verified in accordance with the requirements of an applicable, recognised international and/or regional standard as specified in Criterion 10.3 and in accordance with the requirements of Criterion 10.4.6 for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site.

b. The determination of the site's direct (scope 1) GHG emissions does not include carbon offsets or similar instruments.

Guidance:

(10.4.3) The requirements of Criteria 10.4.6 and 10.4.7 apply to the determination of direct (Scope 1) GHG emissions. These requirements will differ in some respects from those of the regional or international standard adopted by the site for other purposes. In all cases, the requirements of Criterion 10.4.6 or 10.4.7 as applicable take precedence, for the purpose of determining the ResponsibleSteel crude steel GHG emissions intensity performance for the site, and for the purpose of determining the allocation of the site's total GHG emissions to products, co-products and by-products, respectively.

(10.4.3.a) The direct (Scope 1) GHG emissions associated with the use of charcoal, bio-coal, bio-coke, other biological sources of carbon, used plastic, used tyres and waste/ reclaimed wood etc for iron- or steelmaking must be counted in full, as for all direct (Scope 1) GHG emissions.

(10.4.3.b) GHG offsets are not recognised for the purpose of determining the site's GHG emissions intensity, in relation to its direct (Scope 1), energy indirect (Scope 2) or upstream indirect (Scope 3) GHG emissions. Likewise, carbon sequestration associated with land-use (e.g. forest management) whether on- or off-site, is not recognised for the purpose of determination of the site's crude steel GHG emissions intensity. Carbon sequestration associated with biomass production is considered in 10.4.5.c, below. ResponsibleSteel recognises that the role of offsets will need to be considered in relation to definitions and standards for 'net zero' steel, and will consult with its membership and other stakeholders on these issues as required.

10.4.4 Energy indirect (Scope 2) GHG emissions

Energy indirect (Scope 2) GHG emissions are determined in accordance with the requirements of an applicable, recognised international and/or regional standard as specified in Criterion 10.3 and with the following requirements:

a. Imported electricity

- GHG emissions for imported electricity are quantified in accordance with the requirements of ISO 14064-1:2018 Annex E.2 Treatment of imported electricity, using the emission factor that best characterises the pertinent grid, i.e. dedicated transmission line, local, regional or national grid-average emission factor.

- Grid-average emission factors are from the emissions year being reported, if available, or the most recent year if not. Grid-average emissions factors for imported consumed electricity are based on the average consumption mix of the grid from which the electricity is consumed.
- The determination of energy indirect (Scope 2) GHG emissions may be based on the use of renewable energy certificates, power purchase agreements, virtual power purchase agreements, or green tariffs paid in relation to the site's sourcing of electricity where these meet the requirements of ISO 14064-1:2018 E.2.2 Additional information.
- Imported electricity that is used upstream of the production of crude steel at the site and that has been generated from the use of the process gases for production of crude steel at the site is excluded from the determination of the site's energy indirect (Scope 2) GHG emissions for the purpose of determining the ResponsibleSteel crude steel GHG emissions intensity for the site.

b. heating, cooling and steam

- GHG emissions for imported energy other than electricity are quantified using a source-specific emission factor.
- GHG emission factors are from the emissions year being reported, if available, or the most recent year if not. Average emissions factors for imported energy are based on the average consumption mix of the energy generator.

Guidance:

(10.4.4.a) The exclusion of Imported electricity generated from the use of the site's process gases and used upstream of the production of crude steel is excluded ensures that the utilisation of process gas for power generation is recognised even if the energy is generated off site and is re-imported. See 10.4.7.d.i for further details on the GHG accounting of process gas used for power generation.

10.4.5 Upstream indirect (Scope 3) GHG emissions

The upstream indirect (Scope 3) GHG emissions of the site are determined in accordance with the following requirements.

a. The determination of the upstream indirect (Scope 3) GHG emissions of the site includes the direct (Scope 1), energy indirect (Scope 2), and upstream indirect (Scope 3) GHG emissions from 'cradle to gate' for the following input materials, if applicable:

- **Ferrous containing materials:** cold iron, direct reduced iron (DRI), granulated pig iron (GPI), hot briquetted iron (HBI), iron ore, pellets, scrap, sinter, steel slab
- **Auxiliary materials:** argon, burnt dolomite, burnt lime, crude dolomite, limestone, nitrogen, oxygen
- **Alloys and metallic additives:** aluminium, copper, ferro-chromium, ferro-manganese, ferro-molybdenum, ferro-nickel, ferro-silicon, ferro-vanadium, lead, magnesium, manganese, molybdenum oxide, nickel metal, nickel oxides, nickel pig iron, silico-manganese, silicon metal, tin metal
- **Solid fuels:** charcoal, bio-coke, biomass, coal, coke, petroleum coke, used plastic, used tires
- **Liquid fuels:** heavy oil, kerosene, light oil, liquified petroleum gas (LPG)
- **Gas fuels:** hydrogen, natural gas, biogas
- **Other input materials for steelmaking:** other inputs that are assessed as likely to contribute more than 5% to the total upstream (Scope 3) GHG emissions of steelmaking at the site.

b. The determination of the upstream indirect (Scope 3) GHG emissions of the site uses:

- i) Either, the current ResponsibleSteel default embodied GHG values as published by ResponsibleSteel on its website
- ii) Or, primary data provided by the supplier that meets the requirements specified in 10.4.5.c, below.

c. The site uses primary data to determine the upstream indirect (Scope 3) GHG emissions of input materials provided by the supplier when the supplier has provided a declaration of the embodied GHG values associated with the input materials in conformity with the following specifications:

- The declared embodied GHG value is for the material supplied by the supplier and based on the supplier's determination of its own GHG emissions in conformity with the requirements of a ResponsibleSteel-recognised international standard
- The declared embodied GHG value includes an estimation of the direct (Scope 1), energy indirect (Scope 2), and upstream indirect (Scope 3) GHG emissions of the supplied input material from the original source ('cradle') to the point of sale
- The declared embodied GHG value is exclusive of any carbon offsets
- The declared embodied GHG value conforms with any ResponsibleSteel guidance provided for the specific material (see guidance notes)
- The declaration of the embodied GHG value includes reference to the international standard that was used as the basis for the determination, the date on which the determination was made, whether the determination has been independently assured and if so the level of assurance for the determination.

d. The site includes an estimation of the GHG emissions associated with the transportation of the input materials from the point of purchase to the site.

e. The site's upstream indirect (Scope 3) GHG emissions are reduced pro rata if imported materials whose GHG emissions have been included in the determination of the GHG emissions for the production of crude steel at the site are subsequently exported from the site before such use.

DRAFTING NOTE: Provisional default embodied GHG values are given in Annex 11, Table A1. Table A1 will be published on the ResponsibleSteel website when the Standard is approved, and will then be updated as GHG emissions for the production of input materials decrease over time, and/or as more reliable data become available. The default embodied GHG values as published on the ResponsibleSteel website must be used for the purpose of certification assessment. The website reference will be included in the final version of the Standard on publication.

Guidance:

(10.4.5.b) the embodied GHG values referenced by ResponsibleSteel differ from the 'upstream emission factors (Scope 1, Scope 3)' referenced in the worldsteel CO₂ Data Collection methodology in that the ResponsibleSteel embodied GHG values include consideration of GHGs other than CO₂, and also include consideration of the GHG emissions associated with the extraction and transportation of the input materials. The embodied GHG value also differs from the 'direct emission factors' referred to in ISO 14404. Direct emission factors are an estimate of the CO₂ or CO₂e emitted to the atmosphere when an input material containing carbon is used for the production of steel. In contrast, the embodied GHG value is an estimate of the upstream 'cradle to gate' GHG emissions associated with the production of the input material prior to its use.

(10.4.5.b) Non-ferrous metals and ferro-alloys

A default value equivalent to the ResponsibleSteel level 1 performance threshold value for the primary production of steel from iron ore (currently 2.8 tonnes CO₂ e/ tonne crude steel) shall be used as a replacement value for the determination of the upstream indirect (Scope 3) GHG emissions for all non-ferrous metal and ferro-alloy additives, as specified in Table A1. If primary data shows that the upstream embodied GHG value for a non-ferrous metal or ferro-alloy is higher than the replacement value, the replacement value shall still be used. If primary data shows that the upstream embodied GHG value for a non-ferrous metal or ferro-alloy is lower than the replacement value, the lower value may be used. See Guidance to 10.6.4.c for an explanation.

The requirements of 10.4.5.b in relation to the use of ‘replacement’ values for the determination of the upstream indirect (Scope 3) GHG emissions for all non-ferrous metal and ferro-alloy additives are earmarked for review during the 12-month test phase.

(10.4.5.b) Except as specified above in the case of non-ferrous metals and ferro-alloys, when the steelmaker has received primary data from a supplier for the embodied GHG value for the supplied input material the steelmaker must use these data for the determination of its upstream indirect (Scope 3) GHG emissions and may not use the default embodied GHG value for the material even if the default value is lower.

(10.4.5.b) If a steelmaker has primary data provided by some but not all suppliers, primary data must be used for the proportion of the material for which primary data is available, and default embodied GHG values must be used for the proportion of the material for which primary data is not available.

(10.4.5.c) For the different categories of upstream indirect (Scope 3) GHG emissions see: *Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard*, GHG Protocol, 2011. The eight categories of upstream indirect (Scope 3) emissions are: 1. Purchased goods and services; 2. Capital goods; 3. Fuel- and energy-related activities (not included in direct (Scope 1) or energy indirect (Scope 2) GHG emissions); 4. Upstream transportation and distribution; 5. Waste generated in operations; 6. Business travel; 7. Employee commuting; 8. Upstream leased assets. For steelmakers the key categories for indirect (Scope 3) GHG emissions considered in this standard are categories 1, 3, 4 and 5. For mining companies they are categories 1, 3 and 7.

(10.4.5.c) ResponsibleSteel-recognised international standards to support the determination of the embodied GHG values for input materials are currently:

- ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework
- ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines
- ISO 14067:2018, Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification
- PAS 2050:2011 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services

(10.4.5.c) Supply specific primary data may be an average value for the embodied GHG of the specified material supplied by the company, or may be more specific. More specific data should be used where this is available.

(10.4.5.c) Data provided by a third party (e.g. company- or site-specific data listed on a third party database) may be used if it meets the requirements listed in 10.4.5.c and is explicitly confirmed by the company that produces the relevant material.

(10.4.5.c) Mined materials

For mined materials the supplier's estimate of its own upstream indirect (Scope 3) GHG emissions for the material must include consideration of GHG Protocol Scope 3 categories 1, 3 and 7:

1. Purchased goods and services
3. Fuel- and energy-related activities (not included in direct (Scope 1) or energy indirect (Scope 2) GHG emissions
7. Employee commuting.

NOTE: Category 7 includes the emissions associated with 'fly-in fly-out' working at mine sites.

Where a supplier of mined materials has previously determined the direct (Scope 1) and energy indirect (Scope 2) GHG emissions of the supplied input materials in accordance with a ResponsibleSteel recognised international standard, but has not yet included their upstream indirect (Scope 3) GHG emissions, an estimate of their upstream indirect (Scope 3) GHG emissions must be included in the total reported emissions. The estimate may be provisional.

Primary data may be provided as an average for the specified material for the supplying company, or it may be specific to the mine or a group of mines of origin, including, for example, mines within a defined geographical area such as a country.

ResponsibleSteel recommends that suppliers of mined materials/ metals follow the recommendations of Santero and Hendry (2016) in relation to the partition of GHG emissions between different product streams or categories (Santero, N and Hendry, J. Harmonization of LCA methodologies for the metal and mining industry, *The International Journal of Life Cycle Assessment* (2016) 21: 1543 – 1553). Independently verified data which applies another allocation methodology would be considered acceptable.

In the case of mine sites that are owned and/or operated by the steelmaker, the specifications for the determination of emissions associated with the extraction and transportation of input materials apply on the same basis as if the input materials were supplied by a third party.

(10.4.5.c) Natural gas, LNG

Primary data for the supply of natural gas may be specific to the supplying company, to a country from which the gas is sourced, or to a more granular level where such data is available.

(10.4.5.c) Charcoal and other input materials of biological origin

The default upstream embodied GHG value for input materials from biological sources (including the GHG emissions related to land use, management, harvesting and processing of materials) is zero (see Annex 11, Table A1). These input materials may be assigned a negative upstream embodied GHG value (i.e. recognising the carbon sequestered during biological growth) only if the supplier provides primary data for the GHG emissions for the supplied material determined in accordance with either:

- ISO 14067:2018, Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification
- PAS 2050:2011 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services

The determination must include explicit accounting for the GHG emissions associated with land use change and forest/agricultural management for at least 20 years prior to harvest, as well as the GHG emissions associated with harvesting and further processing and transportation of the input material.

(10.4.5.c) Scrap and post-consumer reclaimed material

The use of primary data is not applicable in the case of scrap and post-consumer reclaimed material, for which the default embodied GHG value of zero always applies.

(10.4.5.c, d) It is the responsibility of the purchaser to ensure that an estimate for the GHG emissions associated with transportation of the input material up to the point of delivery has been provided in accordance with the point of delivery specified in the purchase contract (e.g. free on rail at mine gate, free on board, or including carriage, insurance and freight). The purchaser is responsible for determining any additional estimated GHG emissions associated with further carriage of the material by the purchaser.

Estimates should consider the transportation distance, mass of material and the mode of transportation (road, rail, ship) and the related carrier type. Emissions may be estimated using LCA software such as GaBi by Sphera.

In the case of scrap and other recycled or reclaimed materials the GHG emissions associated with transportation should be estimated from the commercial collection point to the ResponsibleSteel certified site gate.

10.4.6 GHG emissions accounting rules for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site. This requirement is only applicable to sites that produce crude steel.

a. Carbon embedded in final products, co-products and by-products

Carbon that remains embedded within steel or other final products, co-products or by-products produced at the site and that is not emitted to the atmosphere through further processing or use is not included as a GHG emission for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site. See 10.4.7 for consideration of carbon capture and use or storage of process gases.

b. Allocation of GHG emissions to co-products and by-products

The GHG emissions associated with steelmaking are allocated in full to the site's production of crude steel. There is no reduction of the ResponsibleSteel crude steel GHG emissions intensity for the site due to the allocation of GHG emissions to the production of steel by-products or co-products at the site (for example process gases, dust, sludge, chemicals, oils). See 10.4.7 for consideration of carbon capture and use or storage of process gases.

c. Allocation of emissions for exported intermediate products ('merchant' production)

Where a site produces and exports intermediate products such as coke, pig iron, GPI or industrial gases from the site, the GHG emissions associated with the production of the exported quantity of the intermediate products should be determined and be deducted from the total GHG emissions for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance of the site.

d. Energy use for on-site processing of crude steel

GHG emissions associated with the on- or off-site processing of crude steel are not included as emissions for the purpose of determining the ResponsibleSteel crude steel GHG emissions intensity performance of the site. The energy indirect (Scope 2) GHG emissions associated with the downstream processing of crude steel should be deducted from the total energy indirect (Scope 2) GHG emissions of the site for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site.

e. Emissions associated with waste or residual materials exported from the site

GHG emissions associated with the storage or disposal of waste or residual materials, whether on- or off-site, must be estimated and included as an emission for the purpose of determining the ResponsibleSteel crude steel GHG emissions intensity performance of the site.

Guidance:

The site must follow the requirements specified in 10.4.6 for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site. Different GHG accounting rules may be applicable to the determination of the product carbon footprint for products manufactured at the site, in conformity with the specific standard the site has selected for this purpose under Requirement 10.6.4.

(10.4.6.a) Examples of carbon embedded in final products include the carbon in carbon steels, and carbon embedded in slag.

(10.4.6.b) The allocation of GHG emissions refers to the partition of GHG emissions between a range of products, co-products or by-products. GHG emission credits for the capture and utilisation or storage of process gases are considered separately in 10.4.7.

(10.4.6.c) The deduction of GHG emissions for the export of intermediate products must be determined on the basis of the proportion of exported intermediate product by mass and is not related to the value of the intermediate product.

10.4.7. GHG emissions accounting rules for carbon capture and utilisation or storage (CCU/CCS) for process gases or their constituents

a. The site determines and records the direct (Scope 1) GHG emissions (CO₂e) associated with process gases (e.g. coke oven gas, blast furnace gas, basic oxygen furnace gas) that are emitted to the atmosphere or are flared under 10.4.3.

b. The site determines and records the GHG emissions (CO₂e) that would have resulted if process gases (e.g. coke oven gas, blast furnace gas, basic oxygen furnace gas) that are captured for utilisation, export or storage had instead been flared. This is referred to as the captured process gas baseline GHG emissions for the site.

c. The captured process gas baseline GHG emissions for the site are included in the determination of the total GHG emissions of the site for the purpose of reporting the GHG emissions intensity for the production of crude steel, minus any credits that are assigned for the subsequent utilisation or storage of the process gases, as specified in paragraphs 10.4.7.d) to 10.4.7.g) below.

d. Credit for the use of process gas for power generation

- i. Where process gas is captured and subsequently utilised either on- or off-site for the generation of power the captured process gas baseline GHG emissions for the site is reduced by the allocation of a GHG emissions credit on the following basis:
 - o The amount of power generated from the use of process gases is recorded in MWh (= A kWh).
 - o If primary data for the amount of power generated is not available, it may be estimated using the current worldsteel default value for the amount of process gas required to generate 1000 MWh of power
 - o The amount of power used by the site upstream of crude steel production is recorded in MWh (= B MWh).
 - o (CO₂e/MWh) as determined by the IEA.

e. Credit for the re-use or recycling of process gas

- i. Where process gases are captured and re-utilised either on- or off-site for purposes other than for the generation of power the captured process gas baseline GHG emissions for the site is reduced by the allocation of a GHG emissions credit on the following basis:

- When process gas is used on-site, upstream of crude steel production its use reduces the site's energy indirect (Scope 2) GHG emissions and/or its upstream (Scope 3) GHG emissions for its production of crude steel, and no further reduction of GHG emissions is applicable.
- When process gas is used on- or off-site, downstream of crude steel production the site is allocated a GHG emissions credit equal to the GHG emissions that would have been generated through the use of natural gas for the same purposes.

f. Credit for the use of process gas for the production of co-products (carbon capture and utilisation, CCU)

- i. Where process gases are captured and utilised either on- or off-site for the production of co-products the captured process gas baseline GHG emissions for the site is reduced by the allocation of a GHG emissions credit:
 - A: on the basis of the net GHG emissions sequestered in an end product, and
 - B: in accordance with the GHG emissions for the production of the co-product from process gas compared with the GHG emissions for the production of the same co-product using other production methods.
- ii. GHG emissions reductions under A are determined as follows:
 - The full life cycle product carbon footprint for the co-product is determined and verified in accordance with the requirements of a specified international standard, including any direct (Scope 1) and indirect (Scope 2) GHG emissions associated with further processing, using a zero value for the embodied GHG emissions (i.e. upstream indirect (Scope 3) GHG emissions) for the process gas itself, and including downstream indirect (Scope 3) GHG emissions through to ultimate end of life disposal.
 - The product carbon footprint assessment report for the co-product is publicly available and references the international standard used for the assessment.
 - The captured process gas baseline GHG emissions for the site is reduced by the net amount of emissions that are determined to have been sequestered at the end of life of the co-product.
- iii. GHG emissions reductions under B are determined as follows:
 - The GHG emissions for the production of the co-product are determined and verified in accordance with the requirements of a specified international standard for determining the product carbon footprint of the co-product from cradle to gate, using a zero value for the embodied GHG emissions for the process gas itself.
 - The global average GHG emissions for the production of a like product using other production methods has been determined and verified in accordance with the requirements of a specified international standard for determining the product carbon footprint of a product from cradle to gate.
 - The product carbon footprint assessment reports for the production of the co-product and for the production of the like product through other production methods are publicly available and reference the international standard used for the assessments.
 - The captured process gas baseline GHG emissions for the site is reduced by the amount of emissions saved by producing the co-product using process gases compared to producing it using other production methods.
- iv. The captured process gas baseline GHG emissions for the site may be reduced by the GHG emissions reduction determined under A in addition to the GHG emissions reduction determined under B.

The maximum allowable reduction of the captured process gas baseline GHG emissions from A and B combined is equal to the direct (Scope 1) GHG emissions determined in 10.4.7.b above.

g. Credit for carbon capture and storage (CCS) of process gas constituents

- i. Where constituents of process gases are captured for permanent storage the captured process gas baseline GHG emissions for the site may be reduced as follows:
 - o The GHG emissions associated with the operation of the carbon capture technology (e.g. direct (Scope 1) and energy indirect (Scope 2) GHG emissions associated with the energy for the compression of process gas constituents, and GHG emissions associated with the capture, transport and storage) must be estimated and included in the determination of the ResponsibleSteel crude steel GHG emissions intensity performance of the site.
 - o The site must provide a public report that:
 - describes the technology used for storage
 - quantifies the GHG emissions that are claimed to be captured and stored permanently
 - justifies the claim that the captured emissions will be stored permanently
 - includes an explicit statement confirming that the leakage of the stored GHGs will be monitored, and that any leakage that is detected will be publicly reported by the site
 - o The captured process gas baseline GHG emissions for the site is reduced by the amount of emissions that are claimed to be permanently captured minus any direct (Scope 1) and energy indirect (Scope 2) emissions associated with the carbon capture technology.

In the event of subsequent leakage from the storage site the GHG emissions (CO₂e) associated with the leakage shall be attributed to the production of steel for the certified site in the year in which the leakage occurs.

Guidance:

The requirements of 10.4.7 are earmarked for a 12-month test phase. Additional stakeholder consultation and membership voting on these requirements would be conducted if the test phase shows that changes are necessary. ResponsibleSteel certified steel certificates will still be issued during the test phase and will be valid for three years as normal.

(10.4.7) Process gases that are captured and subsequently utilised either on- or off-site, for example for the generation of electricity, as inputs for further production, for carbon capture and long-term storage, or for other uses are accounted for as described in this section of the Standard. The accounting for the GHG emissions associated with process gases from the production of steel follows the general approach of the worldsteel CO₂ Data Collection methodology (worldsteel CO₂ Data Collection, User Guide, version 10, 24 February 2021). In general terms:

- Process gases that are emitted to the atmosphere are accounted for as direct (Scope 1) emissions under 10.4.3.
- The GHG emissions that would have resulted from the release of the process gas to the atmosphere if the process gases were not captured is determined and used as a baseline (referred to as ‘Scope 1.1’ emissions in the worldsteel methodology)
- The baseline level of emissions is then reduced by assigning a ‘credit’ that recognises the system level reduction of GHG emissions from the utilisation or storage of these gases.

The intent is to incentivise actions and investments that reduce system level GHG emissions through their recognition in the ResponsibleSteel crude steel GHG emissions intensity performance measure. In the case of credits for energy generation, and credits for carbon capture and utilisation, the value of the credits will decrease over time as the global grid intensity and GHG emissions intensity for alternative production methods decreases.

(10.4.7.d.i) Credit for the use of process gas for power generation:

- o Where electricity is generated on-site and used upstream of the production of crude steel this results in a reduction of the quantity of imported energy, and a consequent reduction in the site’s upstream indirect (Scope 2) GHG emissions. Where electricity is generated from the use of the site’s process gases off-site and is re-imported, the upstream indirect (Scope 2) emissions for this imported energy is excluded from the determination of the site’s upstream indirect (Scope 2) GHG emissions under 10.4.4.a.

- The most up-to-date worldsteel default value must be used. As of June 2022 the worldsteel default value is that 9.8 GJ of process gas generates 1 MWh of power, equivalent to a 37% conversion efficiency.
- The GHG emissions credit associated with the production of crude steel must use the most recent global grid intensity as estimated by the IEA (<https://www.iea.org/reports/tracking-power-2021>). The most recent global grid intensity value in March 2022 is the value for 2020, which is 458 gCO₂/kWh.

(10.4.7.e) the internal re-use or recycling of process gases may have further advantages in terms of efficiency improvements (e.g. in relation to reduced reductant requirements), but these are considered to be sufficiently accounted for through general reductions in direct (Scope 1), indirect (Scope 2) and/or upstream indirect (Scope 3) GHG emissions, and are not considered separately.

(10.4.7.f) Examples of co-products that may be manufactured from captured process gases include: building materials such as concrete or carbonate aggregates; chemical intermediates such as methanol, formic acid or syngas; fuels such as aviation fuels, fuel ethanol or methane; food additives; polymers; carbon fibres; and other products.

(10.4.7.f.ii and iii) The site may select what it considers to be the most appropriate international standard for the purpose of determining the product carbon footprint as referred to in 10.4.7.f.ii and iii. The ResponsibleSteel standard does not specify which international standard is likely to be the most appropriate, but specifies that the report on the determination must be published and so be subject to public scrutiny.

10.4.8. Downstream indirect (Scope 3b) GHG emissions

Downstream life cycle considerations such as product GHG emissions in use and emissions associated with end-of-life disposal of products except as specified above are excluded from the calculation of the ResponsibleSteel crude steel GHG emissions intensity performance of the site.

Guidance:

(10.4.7.g) Carbon capture and storage refers to the capture of constituents of process gases for permanent storage (for example in geological formations).

(10.4.7.g.i) Upstream indirect (Scope 3) emissions associated with the CCS project (including emissions associated with capital goods) are not included in the crude steel GHG emissions intensity determination.

Criterion 10.5: Site-level GHG emissions reduction targets and planning

There is a medium-term GHG emissions reduction target and plan for the site that is aligned with the achievement of the corporate owner's corporate level GHG emissions target(s).

10.5.1. There is a time-specific, medium-term target for the reduction of the GHG emissions for the site or defined portfolio of sites that is at or below the trajectory required for the corporate owner to achieve the medium-term GHG emissions reduction target for all of its sites, as specified under requirement 10.1.2.

For steelmaking sites, the target is defined in terms of the GHG emissions intensity of crude steel production (metric tonnes of CO₂ equivalent/ metric tonne crude steel).

10.5.2 There is a time-specific, medium-term target to reduce the net GHG emissions associated with the site's use of imported electricity, where the GHG emissions associated with the use of imported electricity are significant.

Guidance:

(10.5.1) The site-level target must itself be below the average trajectory required to achieve the corporate owner's overall corporate level target, OR, if this is not the case, the corporate owner must show that its whole portfolio of sites meets the requirements of 10.5.1 to 10.5.5, and so demonstrate that in combination its sites are on track to achieve its corporate level target.

(10.5.1) The site-level target is not required to include consideration of upstream indirect (Scope 3) GHG emissions, or measures for the reduction of the site's upstream indirect (Scope 3) GHG emissions. However, sites which are planning in future to meet the requirements to market or sell their steel as ResponsibleSteel certified are recommended to consider measures for the reduction of their upstream indirect (Scope 3) GHG emissions at the earliest opportunity as the upstream indirect (Scope 3) GHG emissions will be included in the determination of the crude steel GHG emissions intensity performance for the site under the requirements of Criterion 10.4.

(10.5.1, 10.5.2) the medium-term plan should cover activities planned for the following five to fifteen years, in accordance with the site's financial and operational planning cycle. Longer term planning is also compatible with this guidance, so long as the time-specific milestones provide for effective monitoring in the medium term.

(10.5.2) This requirement could be met, for example, through targets for: the purchase of electricity from low or zero carbon sources, renewable energy certificates, power purchase agreements, virtual power purchase agreements, or green tariffs paid in relation to the site's sourcing of electricity. GHG reductions achieved through the use of biofuels that do not meet recognised sustainability standards shall not be recognised as contributing to the achievement of the net GHG reduction targets associated with the use of imported electricity. Recognised sustainability standards for biofuels are currently limited to the voluntary schemes recognised as meeting the sustainability criteria of the European Union's Renewable Energy Directive (EU) 2018/2001 (see list of approved Voluntary Schemes: https://energy.ec.europa.eu/topics/renewable-energy/biofuels/voluntary-schemes_en#approved-voluntary-schemes-and-national-certification-schemes).

(10.5.2) Where a site introduces a new technology that has a major impact on reducing its direct emissions but results in an increase in the amount of imported electricity, the baseline for reducing net emissions for the imported electricity is set when the new technology is introduced.

(10.5.2) GHG emissions associated with imported electricity are considered significant if they represent more than 10% of the site's total (direct and indirect) GHG emissions.

(10.5.2) Where imported electricity is generated from the use of the site's own co- or by-products (e.g., process gases) whose GHG emissions have already been accounted for under 10.5.1, the GHG emissions for this imported electricity are considered to be zero for the purpose of calculating net GHG emissions under 10.5.2.

(10.5.2) Low carbon energy procurement must be consistent with a specified, recognised international or national standard or regulation and must be publicly reported (see 10.7.1.b). Examples of recognised standards include:

- The quality criteria set in the GHG Protocol Scope 2 guidance
- The RE100 credible claims guidance.

10.5.3. There are plans in place, approved by senior management, to achieve the site's GHG emissions target(s) within the specified timelines as defined in 10.5.1 and 10.5.2. The plans include:

- a. Time-specific milestones for each target from present through to the achievement of the medium-term target levels;
- b. Explicit quantification of the site's reduction of direct GHG (CO₂ e) or CO₂ emissions required to achieve the target(s) specified under 10.5.1;
- c. Specification of the international or regional standard that will be used to measure progress towards the target,

and a description of the elements that are included or excluded from consideration (e.g., whether upstream indirect (Scope 3) GHG emissions are considered, and how any emissions associated with the site's products, co-products, by-products or waste are to be taken into account);

d. Consideration of the technology, equipment, management system changes or other options to achieve the targets over time;

e. Consideration of the costs of installing any specified technology or equipment;

f. Consideration of the proposed mechanism for financing the proposed technology or equipment;

g. Consideration of external conditions that will need to be in place for the plan to be successfully implemented, or conditions that might prevent successful implementation.

10.5.4. Progress on the implementation of the plans is monitored and reported to the site's board or equivalent oversight body on a regular basis, including an explanation of relevant issues such as changes to production in response to market conditions, closures for repairs or other significant factors, and the plans are updated if appropriate.

10.5.5 The medium-term targets for the site or defined portfolio of sites, as specified under requirements 10.5.1 and 10.5.2 and progress towards achieving these targets are reported publicly and on a regular basis.

Guidance:

(10.5.3) The content of the site's plans is considered to be commercially confidential and shall not be disclosed by ResponsibleSteel or any auditors acting to verify compliance with the requirements of the ResponsibleSteel standard. The specified medium- to long-term targets and progress towards their achievement would, however, be reported.

(10.5.5) The medium-term target is reported to the ResponsibleSteel Secretariat under Requirement 10.7.1.d for publication on the ResponsibleSteel website.

Criterion 10.6: Requirements to market or sell products as ResponsibleSteel certified

The site may only market or sell steel products, co-products or by-products as ResponsibleSteel certified when the following requirements are met.

Note: This Criterion is only applicable to sites that produce crude steel and that wish to market or sell their steel or other products as ResponsibleSteel certified.

10.6.1. Measurement of GHG emissions, crude steel production and scrap use

a. The site measures and records on a consistent basis:

- its annual production of crude steel (saleable tonnes)
- the quantity of iron and steel scrap and other scrap metals used in its annual production of crude steel (tonnes)
- the GHG emissions (tonne CO₂ e) associated with its crude steel production in accordance with the requirements specified in Criterion 10.4 of this standard.

b. These data are collated and recorded for the site's previous year of operation.

10.6.2 The site calculates and records the ResponsibleSteel crude steel GHG emissions intensity performance of the site in accordance with the equation:

ResponsibleSteel crude steel GHG emissions intensity performance (tonne CO₂ e/ tonne) = total GHG emissions (tonne CO₂ e) for the previous year of operation / saleable tonnes of crude steel produced in the previous year of operation (tonne)

Guidance:

(10.6.1.a) For the purpose of determining the ResponsibleSteel GHG emissions intensity for crude steel, crude steel production is measured at the point that continuous casting or ingot casting has been completed, and prior to any further processing such as roughing or hot rolling. 'Tonnage' means 'saleable tonnage' (see glossary: Crude steel).

(10.6.1.a) For the purpose of determining the ResponsibleSteel GHG emissions intensity for crude steel, the quantity of scrap used in the annual production of crude steel includes end of life scrap, manufacturing scrap and home scrap, but excludes internal scrap (see glossary). Crude steel that is rejected for quality reasons before the point at which the crude steel saleable tonnage is determined and which is returned to the steelmaking process is considered to be internal scrap. Metal waste that is generated after the point of measurement of crude steel saleable tonnage, and which is returned to the steelmaking process is considered to be home scrap.

(10.6.1.b). Site-specific data must be for a specified year of operation and be representative of current production. The year of operation may be defined as a calendar year, or in relation to a reporting year for the site. The completed year immediately prior to the audit shall be used as the default period, but if an earlier year is used this shall be reported and justified.

10.6.3. The site may only market and sell steel products produced at the site as being made with ResponsibleSteel certified steel when the requirements of this Requirement 10.6.3 and the following Requirement 10.6.4 have both been met:

- a. The GHG emissions intensity of the crude steel produced at the site has been determined in accordance with the requirements of Criterion 10.3 and Criterion 10.4.
- b. The GHG emissions intensity (metric tonnes of CO₂ equivalent/ metric tonne crude steel) of the crude steel produced at the site is below the ResponsibleSteel basic threshold level of performance as specified for in accordance with the formula:

$$y < 2.8 - 2.45 (x)$$

Where:

y = the determined GHG emissions intensity for crude steel production (tonne CO₂ e/ tonne crude steel) at the site

x = the proportion of scrap used as an input material for crude steel production at the site, specified as the percentage of the total metallics input

Guidance:

(10.6.3.b) Mandatory Guidance:

The proportion of scrap used as an input material is specified as the percentage scrap share of the metallics input for crude steel production.

The proportion of scrap includes iron and steel scrap as well as other non-ferrous metal scrap used as an input for crude steel production.

NOTE: if scrap is the only input material, then the scrap input specified as the percentage share of the metallics input will be 100%. If the proportion of scrap were to be measured as a percentage of the saleable production of crude steel (qv), the proportion of scrap would be greater than 100%, as some metallic material is lost during processing, and so it takes more than 1 tonne of metal in scrap to produce 1 tonne of saleable production.

The determination of the total metallics input must include the contribution of non-ferrous metallics input from non-

ferrous metals and ferro-alloys.

c. the ResponsibleSteel GHG emissions intensity for crude steel production (tonne CO₂ e/ tonne crude steel) (*y*) has been verified as being below the applicable ResponsibleSteel performance threshold level for the proportion of scrap used at the site as input material (*x*), according to the values of (a) and (b) shown in the table below and the formula:

$$y < a - b(x)$$

	a: ResponsibleSteel crude steel GHG emissions intensity performance using 0% scrap as input (tonne CO ₂ e/ tonne crude steel)	b: gradient	ResponsibleSteel crude steel GHG emissions intensity performance using 100% scrap as input (tonne CO ₂ e/ tonne crude steel)
ResponsibleSteel Basic Level 1 threshold	2.80	2.45	0.35
ResponsibleSteel Performance Level 2 threshold	2.00	1.75	0.25
ResponsibleSteel Performance Level 3 threshold	1.20	1.05	0.15
ResponsibleSteel Performance Level 4 threshold	0.40	0.35	0.05

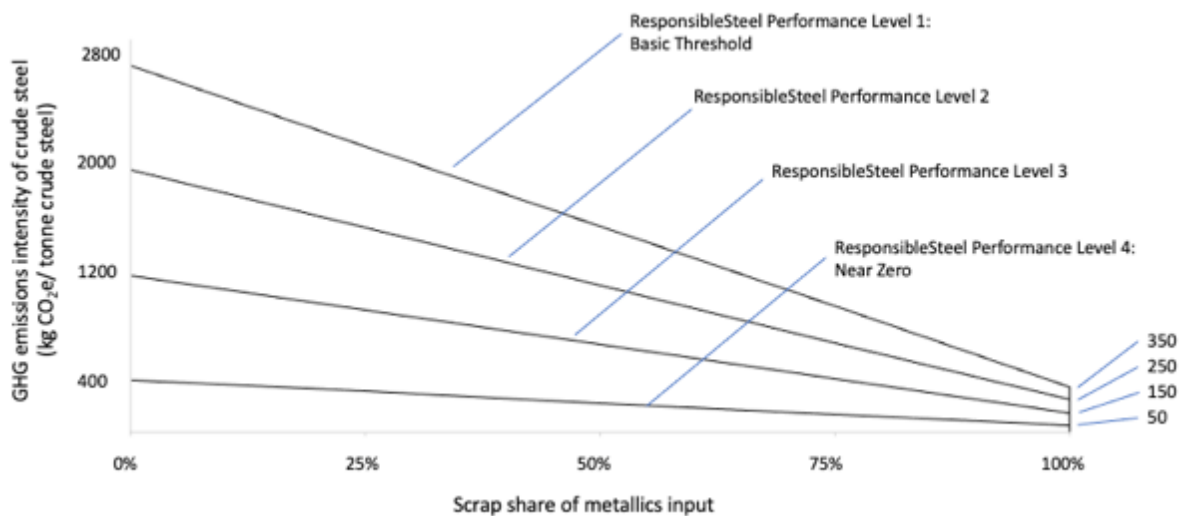


Figure 1. Illustration of the four performance levels for crude steel GHG emissions intensity.

Guidance:

The specification of the ResponsibleSteel ‘basic threshold’ levels of performance has been subject to extensive discussions with the ResponsibleSteel membership and other stakeholders since 2018. The final threshold level is based on the scope boundaries and GHG accounting rules specified in Criterion 10.4. It has been specified taking account of: existing publicly accessible estimations on GHG emissions for steel production; site-specific data made available to ResponsibleSteel by its steelmaker member organisations, following both the worldsteel CO₂ data methodology and the worldsteel LCI methodology; site-specific data for approximately 300 steelmaking sites around the world modelled by the

consultancy organisation CRU; and the crude steel GHG emissions intensity reference values determined by IEA for steel production using pulverised coal injection (PCI) and electric arc furnace (EAF) technologies in the IEA report 'Achieving Net Zero Heavy Industry Sectors in G7 Members' (May 2022).

Finally, the threshold for the ResponsibleSteel 'near zero' performance level 4 has been aligned with the IEA's proposed threshold for 'near zero emission production' of steel, and the intermediate performance levels 2 and 3 have been aligned with the proposed IEA performance ranges.

Further information on how the ResponsibleSteel performance thresholds compare to other published estimates of the GHG emissions intensity for steel production and with performance measures that have been proposed by other organisations is provided in a separate ResponsibleSteel report (to be published in July 2022).

Review and revision of performance level thresholds

The specified levels and thresholds will be reviewed on a five-yearly basis and may be revised with the specific objective *"to achieve the fastest global transition to a near zero steel sector"*. The review will be carried out by ResponsibleSteel with the support of a working group of ResponsibleSteel members comprising equal numbers of business and civil society members, in accordance with a process to be agreed and overseen by the ResponsibleSteel board of directors.

The review will include consideration of:

- i. Projections at the time for the sectoral transition required to achieve the goals of the Paris Agreement;
- ii. Available data on the progress of the steel sector worldwide in reducing GHG emissions intensity for the production of crude steel;
- iii. Projections for further reductions based on progress in the commercialization of new technologies, and public commitments by steelmakers worldwide;
- iv. The status of demand side commitments to purchase/ support 'low GHG'/ 'near zero'/ 'net zero' steel, including consideration of public procurement commitments, private sector commitments, finance sector commitments and relevant policies in relation to trade, carbon pricing, etc.

Revised thresholds, if agreed, will be applicable after a 2-year transition.

Sites producing high alloy and stainless steels

The performance levels and thresholds in 10.6.3.b and 10.6.3.c have been specified excluding sites specialising in the production of high alloy and stainless steels, and excluding the contribution of upstream indirect (Scope 3) GHG emissions associated with the use of non-ferrous metal and ferro-alloys. The performance levels and thresholds are therefore based on global performance for steel production excluding the GHG emissions associated with the use of non-ferrous metals in steelmaking.

Technical specifications and GHG emissions intensity performance thresholds applicable to the ResponsibleSteel certification of high alloy steels and stainless steels are subject to ongoing discussion with stakeholders. Technical specifications and performance levels will be developed following the ResponsibleSteel Standard Development Procedures and will be submitted for member approval once finalised.

Pending finalisation of technical specifications and GHG emissions intensity performance thresholds applicable to the ResponsibleSteel certification of high alloy and stainless steels a replacement value for the upstream indirect (Scope 3) GHG emissions for non-ferrous metals and ferro-alloy input materials shall be used for the determination of the upstream indirect (Scope 3) GHG emissions for the crude steel produced at the site. The replacement value is equivalent to the ResponsibleSteel level 1 performance threshold value for the primary production of steel from iron ore, as specified in Table A1. This is intended to have the effect of removing variability in the measurement of the GHG

emissions intensity performance of a site related to variations in its use of non-ferrous metals and ferro-alloy input materials.

Sites producing stainless and high alloy steels may apply for certification under the current thresholds. If a site meets the specified performance threshold it may market and sell steels that are produced at the site and that contain less than 8% alloy content as ResponsibleSteel Certified Steel, in accordance with ResponsibleSteel claims guidance (forthcoming). However, sites are not permitted to market or sell steels that are produced at the site that contain more than 8% alloy content as ResponsibleSteel certified until the technical specifications and GHG intensity performance thresholds for high alloy and stainless steels have been finalised and approved.

Sites that produce both high alloy or stainless steels and lower alloy steels in different production lines, or through batch processing, and that are able to determine the GHG emissions intensities separately for crude steel production lines or batches, will in future be permitted to market steels with less than 8% alloy content as ResponsibleSteel certified in accordance with the level of performance achieved for the production line or batch, subject to the development of guidance by ResponsibleSteel on the application of this approach.

This approach is intended to allow sites that are producing a range of different steels to take part in the programme at the earliest opportunity. It ensures that high alloy steels are not marketed as ResponsibleSteel certified when a major part of their GHG emissions profile, associated with their use of non-ferrous metals and ferro-alloys, has not been subject to any evaluation or comparison. And finally, it ensures that high alloy steels produced at sites that specialise in producing high alloy steels only are not unfairly disadvantaged in comparison to similar steels produced at sites that produce high alloy steels together with lower alloy steels.

10.6.4 Determination of the product carbon footprint for steel products, co-products or by-products to be marketed or sold as ResponsibleSteel certified

a. The site determines the product carbon footprint for any steel product, co-product or by-product it wishes to market or sell as ResponsibleSteel certified, in conformity with the applicable requirements of specified regional or international standards for reporting the product carbon footprint.

b. The determination includes as a minimum the emissions of the products, co-products or by-products from 'cradle to gate' including emissions associated with raw material extraction, raw material processing, transportation and product manufacturing. Additional aspects (for example in relation to end of life emissions) may be determined, but if they are the emissions for these aspects must be clearly disaggregated from the 'cradle to gate' data.

Guidance:

(10.6.4) The requirement allows for co-products to be sold as ResponsibleSteel certified if the site wishes. The standard requires that the product carbon footprint is determined and declared if the product/ co-product is to be marketed or sold as ResponsibleSteel certified. It is not a requirement when this is not the case.

NOTE: the determination and disclosure of the product carbon footprint is intended to ensure that GHG emissions associated with the processing of crude steel after its production are accounted for, and to provide customers with a full picture of the carbon footprint for the steel products they buy or specify.

A number of standards, methodologies and tools may be used to support the determination and reporting of the product carbon footprint, either as a unique attribute, or as one part of a broader assessment that considers other environmental aspects in addition to GHG emissions. These include:

Standards that focus specifically on the product carbon footprint:

- The GHG Protocol Product Life Cycle Accounting and Reporting Standard

- ISO 14067:2018, Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification
- PAS 2050:2011 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services

Standards that cover a broader range of environmental aspects:

- EN 15804:2012 + A2:2019, Sustainability of construction works – Environmental product declarations - Core rules for the product category of construction products
- ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations. Principles and procedures
- ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework
- ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines
- ISO 20915:2018, Life cycle inventory calculation methodology for steel products
- ISO 21930:2017 Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of products and services.

Additional supporting tools and methodologies:

- EUROFER Methodology Report: Life Cycle Inventory on Stainless Steel Production in the EU, 2019
- The European Union Product Environmental Footprint (PEF) methodology (currently in transition phase of development)
- The CARES EPD Tool, for application to construction products
- The International Stainless Steel Federation (ISSF) Life Cycle Inventory / Analysis of Stainless Steel
- The worldsteel life cycle inventory methodology (see ‘Life cycle inventory methodology reports for steel products’, World Steel Association, 2017, ISBN 978-2-930069-89-0)

(10.6.4) The rules of the applicable international or regional standard apply in relation to 10.6.4. ResponsibleSteel requirements (and in particular the requirements of Criterion 10.4) apply in relation to the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site. The respective GHG accounting rules applied by the site for the determination of the product carbon footprint may differ to those applied for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site. Sites and auditors must be mindful of such differences when preparing or verifying GHG emissions data for the different purposes of the determination of the product carbon footprint for specific product categories or for the determination of the ResponsibleSteel crude steel GHG emissions intensity performance for the site.

Criterion 10.7: GHG emissions disclosure and reporting

Key measures of the site’s GHG emissions performance are publicly disclosed.

10.7.1. The site has collated the following information for the site (or for each individual site within the defined portfolio of sites as specified in Criterion 10.5) for submission to the ResponsibleSteel Secretariat for publication on the ResponsibleSteel website:

- a. The total GHG (CO₂ e) or CO₂ emissions for each site calculated in accordance with the requirements of Criterion 10.3 and in accordance with the specifications defined in Criterion 10.4 where these have been applied.
- b. The basis for the determination of the total GHG emissions for each site, including:
 - i. The international or regional standard(s) used;
 - ii. Whether or not the determination has been prepared in conformity with the requirements specified in Criterion 10.4;
 - iii. Whether the determination includes the purchase of renewable energy certificates or similar mechanisms

such as power purchase agreements, virtual power purchase agreements, or green tariffs paid in relation to the sourcing of the site's electricity, and if so a description of the source and quantity of such certificates or agreements;

- iv. A clear description of the scope boundary for the determination, including a clear description of which emissions associated with the extraction, preparation, processing and transportation of input materials have been included or excluded in the determination;
- v. An explanation of the greenhouse gases that have been taken into account in the determination or, if only CO₂ emissions have been considered, a clear statement to this effect;
- vi. The level of assurance provided by the verification body for the site's determination of the reported GHG emissions, in accordance with the definitions and specifications for the level of assurance as specified in *ISO 14064-3:2019 Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements*.
- vii. The date of the determination
- viii. An explanation of variations in figures reported using different measurement standards if more than one standard has been used by the site and different figures have been reported as a result.

c. In the case of a portfolio of sites as specified in 10.5.1, in addition to the elements listed in 10.7.1a and 10.7.1.b above:

- i. the number of sites in the defined portfolio
- ii. the names of the sites in the defined portfolio
- iii. a consolidated summary of each of the elements listed in 10.7.1a to 10.7.1b, for the portfolio as a whole.

d. The time-specific medium-term targets for GHG emissions for the site or the defined portfolio of sites as determined to meet the requirements of 10.5.1 and 10.5.2.

Guidance:

(10.7.1) Mandatory Guidance. The certification body must provide the information listed in 10.7.1.a) to d) to the ResponsibleSteel Secretariat for review together with the public summary of its certification report, before a certification decision is taken.

ResponsibleSteel will publish a table on its website listing all the sites that are either ResponsibleSteel certified or that are included within a portfolio of sites as specified under Criterion 10.5. The table will be available to the public.

- In the case of sites that are certified on the basis of a medium-term target for GHG emissions for a single specific site under Criterion 10.5, the table will list the site-specific information specified in 10.7.1.a, b and d for each individual site.
- In the case of sites that are certified on the basis of a medium-term target for GHG emissions for a portfolio of sites under Criterion 10.5, the table will list the consolidated summary information for the portfolio of sites only, as specified in 10.7.1.c and d. When the publicly reported information is for a portfolio of sites this will be clearly stated in the table, and the individual site-specific information listed under 10.7.1.a and b will be held by ResponsibleSteel as confidential information.

The information specified in 10.7.1.a) to d) must be reviewed by the certification body at the time of the site's surveillance visit and if the information has been revised the certification body must submit the updated information to the ResponsibleSteel Secretariat to update the table of public information as applicable.

(10.7.1) Each site within the portfolio must meet the requirements of Principle 10 individually in its own right, except as

specified in relation to defining GHG targets across a portfolio of sites to meet the requirements of 10.5.1 and 10.5.2, the public reporting of information here under 10.7.1, and in relation to the public reporting of the average of the ResponsibleSteel crude steel GHG emissions intensity for the site under 10.7.2. Sites that are included in the portfolio under 10.5.1 but which are not themselves ResponsibleSteel certified are not required to be assessed or certified for conformity with the other Principles of the ResponsibleSteel Standard.

(10.7.1.b) *ISO 14064-3:2019 Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements* defines two possible levels of assurance: verification at a ‘reasonable level of assurance’, and verification at a ‘limited level of assurance’. Verification should preferably be provided at the reasonable level of assurance, but must be provided at least at the ‘limited level of assurance as defined in ISO 14064-3 (2019). Under this requirement the site is required to report the level of assurance provided for the verification of its GHG emissions data.

10.7.2. Crude steel GHG emissions intensity performance

Note: These requirements apply only to sites that produce crude steel and that wish to market or sell their steel or other products as ResponsibleSteel certified

a. The site has collated the following information for each site (including for individual sites in a group, if applicable, as specified under 10.7.2.b) for submission to the ResponsibleSteel Secretariat:

- i. the name of the site
- ii. the annual production of crude steel (saleable tonnes) for the site
- iii. the proportion of scrap used as an input for crude steel production at the site (as determined in 10.6.1)
- iv. the ResponsibleSteel crude steel GHG emissions intensity performance of the site (metric tonnes of CO₂ e/ metric tonne crude steel), as determined in conformity with the requirements of Criterion 10.4 and 10.6
- v. the ResponsibleSteel crude steel GHG emissions intensity performance level (1, 2, 3 or 4) as specified in 10.6.3.c that has been achieved by the site
- vi. The level of assurance provided by the verification body for the site’s determination of the reported GHG emissions, in accordance with the definitions and specifications for level or assurance specified in ISO 14064-3:2019 Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.
- vii. The date of the determination
- viii. whether the crude steel GHG emissions intensity performance for the site will be reported publicly for the site individually, or as a weighted average with other sites.

b. In the case of a site that wishes to disclose its crude steel GHG emissions intensity performance as a weighted average of a group of sites, the site has collated the following information in addition to the elements listed in 10.7.2a, above:

- i. the number of sites to be included in the group average
- ii. the names of the sites to be included in the group average
- iii. the name of the strategic business unit under which the sites are managed
- iv. the type of steel produced by the sites (carbon and low alloy steels (<8% alloys and other elements); stainless steels (>10.5% chromium); high alloy steels (>=8% alloys and <10.5% chromium)
- v. evidence demonstrating that the listed sites produce the same type of steel and are managed as a strategic business unit

Guidance:

(10.7.2) Mandatory Guidance. The certification body must provide the information listed in 10.7.2.a) and b) for each site to the ResponsibleSteel Secretariat for review together with the public summary of its certification report, before a certification decision is taken.

If a certificate is issued the ResponsibleSteel Secretariat will publish the information listed under 10.7.2.a for the site, unless the site has specified that it wishes to disclose its crude steel GHG emissions intensity performance as a weighted average for a group of sites. The ResponsibleSteel crude steel GHG emissions intensity performance level for a group of sites may be published as a weighted average of the crude steel production volume (saleable tonnes) for each member of the group where:

All the sites within the group are managed within the same strategic business unit and produce the same type of steel (carbon and low alloy steels (<8% alloys and other elements); stainless steels (>10.5% chromium); or high alloy steels (>=8% alloys and <10.5% chromium)), and

Each site within the group has itself achieved at least the ResponsibleSteel threshold level of performance (level 1)

(10.7.2.b.v) The steelmaker must be able to demonstrate that the sites within the group are managed as a strategic business unit (see glossary), meet customer orders through a collective production schedule and do not market their own products as separate entities.

(10.7.2.b) Sites within a group may use different steelmaking technologies, including for example EAF and BF/BOF sites within one group of sites reporting an averaged GHG emissions intensity for its crude steel production.

(10.7.2.b) When a site has chosen to report its ResponsibleSteel GHG emissions intensity performance and performance level to ResponsibleSteel as an average across a group of sites it may not report or claim a different site-specific ResponsibleSteel GHG emissions performance or performance level in any circumstances for other purposes. If this were to occur and be brought to the attention of ResponsibleSteel the site would be taken out of the group and the group average would be recalculated accordingly.

Publication of data by ResponsibleSteel

On the issue of a certificate the ResponsibleSteel Secretariat will add information about the crude steel GHG emissions intensity performance for each site to the table of certified sites published on the ResponsibleSteel website. In the case of sites that choose to report their crude steel GHG emissions intensity performance publicly for individual sites, the table will list the site-specific information specified in 10.7.1.a i) to vii) for the site. In the case of sites that have requested to report their crude steel GHG emissions intensity performance as an average across a group of sites, the table will list the average of the site-specific information specified in 10.7.1.a iii) and iv) weighted according to the quantity of crude steel (saleable tonnes) produced at each site in the group, together with the ResponsibleSteel crude steel GHG emissions intensity performance level (1, 2, 3 or 4) that has been achieved for the group of sites as a whole, based on the weighted average.

In the case of sites that choose to report their crude steel GHG emissions intensity performance as an average across a group of sites, this will be clearly stated in the table with the relevant information for the site as specified in 10.7.2.b.i – iii. The individual site-specific information specified in 10.7.2.a iii) and iv) will be held by ResponsibleSteel as confidential information.

10.7.3. The product carbon footprint for any product, co-product or by-product that is marketed or sold as ResponsibleSteel certified as determined in 10.6.4 is made publicly available, together with:

a. reference to the specific international or regional standard that has been used as the basis of the determination of

the product carbon footprint for the product, co-product or by-product

b. the declaration of the ResponsibleSteel crude steel GHG emissions intensity performance level (1, 2, 3 or 4) for the crude steel the product is made from, where applicable.

Guidance:

(10.7.3) See Glossary for definition of 'public/ publication':

Public/ publication: This means that information is either accessible by the public (e.g. through information published on the site's website or through information published on a regulatory website) or that information could be accessed through legal public means (e.g. through information requests to regulators).

In the case of the product carbon footprint the information should be readily accessible via the certificate holder's website.

(10.7.3) The declaration of the product carbon footprint (cradle to gate emissions) for the product must be communicated clearly and be clearly distinguished from the consideration of GHG emissions related to further product life cycle considerations taking place beyond the production site gate, for example in relation to emissions associated with the product's use and/or end of life disposal, and/or potential benefits associated with its reuse, recovery, or recyclability.

(10.7.3) The declaration of the product carbon footprint of the product will follow the rules for disclosure and reporting as specified in the applicable international or regional standard(s) referenced in 10.6.4. The rules for averaging emissions across product categories or sites will also be as required by the applicable international or regional standard(s) and are independent of the rules for determining and reporting the GHG emissions intensity for crude steel production as specified in 10.7.2.

Updating disclosed GHG data

(10.7.1, 10.7.2, 10.7.3) The information specified in 10.7.1, 10.7.2 and 10.7.3 must be reviewed by the certification body at the time of the site's surveillance visit and if the information has been revised (including any changes to the emissions intensity achieved at specific sites, and/or changes to the sites that are to be included in the group average) the certification body must submit the updated information to the ResponsibleSteel Secretariat which will update the table of public information as applicable.

Principle 11. Noise, Emissions, Effluents and Waste

Objective:

ResponsibleSteel certified sites prevent and reduce emissions and effluents that have adverse effects on communities or the environment, manage waste according to the waste management hierarchy and take account of the full life cycle impacts of waste management options.

Background:

Noise and emissions to air, soil and water can have highly adverse impacts on humans and the environment, and can result in significant financial and reputational damage to companies.

The ResponsibleSteel Standard takes the following approach to noise and vibration and air emissions: commit, monitor, reduce where needed, track and verify performance. A similar approach is applied to spills and leakage. The waste and production residues Criterion applies 'Life Cycle Thinking' and the application of the Waste Management Hierarchy. The intent is to find the most appropriate waste management option, making sure that waste is avoided or recovered where reasonably possible, and disposed of in a responsible manner. The responsibility here extends to third parties that handle waste on behalf of the site. The Standard also requires that companies work to phase out the practice of long-term waste and production residues storage, which can pose significant risks to humans and the environment.

The Criteria in the Noise, Emissions, Effluents and Waste Principle are not applicable to office and other administrative buildings of a site since their impacts related to the Criteria in this Principle can be considered non-material.

The Noise, Emissions, Effluents and Waste Principle has links with the Water and Biodiversity Principles, so effective management here should have a positive effect on performance in relation to the other two Principles.

The Occupational Health and Safety Principle of the ResponsibleSteel Standard covers worker exposure to noise and contains a Criterion for Emergency Preparedness and Response, which is why Requirements related to worker exposure to noise and emergencies are not covered here.

Criterion 11.1: Noise and vibration

The site implements plans to prevent and reduce adverse impacts from noise and vibration on communities or the environment.

11.1.1. The site is committed to prevent and continually reduce noise and vibration.

11.1.2. The site has an ongoing monitoring programme that covers facilities and plants owned or fully or partly controlled by the site and that establishes baseline values that allow the identification of changes to noise and vibration levels.

11.1.3. The site:

- a) Reviews its methods of operation and maintenance and identifies potential opportunities to prevent or reduce noise and vibration;
- b) Analyses the feasibility of the identified opportunities and provides a clear rationale for why prevention and reduction opportunities are taken or not;

11.1.4. Based on its analyses in 11.1.3.b, the site defines target levels and time-bound action plans to prevent and reduce noise and vibration.

11.1.5. The site tracks its performance against the noise and vibration action plans. Where progress in achieving the targeted noise and vibration levels is lacking, the site revises and amends its reduction plans.

11.1.6. The effectiveness of the site's noise and vibration reduction plans is regularly verified by a competent party. Where the site has been the subject of controversy in relation to noise and vibration, it implements a mitigation plan. The effectiveness of the plan is verified by a competent third party.

Guidance:

Baseline (11.1.2): This refers to a baseline under business as usual circumstances.

Potential opportunities to prevent or reduce noise and vibration: Sites are expected to identify opportunities and define targets beyond regulatory requirements. Opportunities may include technological adjustments or investments, changes of practice, or other approaches. Sites should identify and consider relevant guidance such as the European Union Best Available Techniques (BAT) conclusions for iron and steel production or the IFC Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines, Environmental, Noise Management. Note that the IFC guidelines address noise beyond the property boundary of facilities.

Interpretation on 11.1:

ResponsibleSteel understands that vibration related to steel sites and their operations might not pose an issue to communities.

Sites are expected to document how they have considered potential adverse impacts of machinery-related and groundborne vibration on communities. Assuming no adverse impacts have been identified or have been raised as

issues by stakeholders or regulators, sites might be able to justify why they provide a minimal response to requirements 11.1.1. to 11.1.6 in relation to vibration.

Sites are expected to address the potential health and safety impacts of machine vibration on workers though.

Ultimately, auditors must be satisfied that the intent of Criterion 11.1 in relation to vibration is met.

Applicability to office and other administrative buildings: The Criteria in the Noise, Emissions, Effluents and Waste Principle are not applicable to office and other administrative buildings of a site since their impacts related to the Criteria in this Principle can be considered non-material.

Criterion 11.2: Emissions to air

The site implements plans to prevent and reduce emissions to air that have adverse impacts on communities or the environment.

11.2.1. The site is committed to prevent and continually reduce adverse emissions to air.

11.2.2. For emissions to air with adverse impacts on communities or the environment, the site has an ongoing programme or is taking part in a regional programme that monitors its point source emissions from facilities and plants owned or fully or partly controlled by the site and that establishes baseline values that allow the identification of changes to air emission levels.

11.2.3. The site:

- a) Reviews its methods of operation and maintenance and identifies potential opportunities to prevent or reduce point-source, diffuse and fugitive adverse emissions to air;
- b) Analyses the feasibility of the identified opportunities and provides a clear rationale for why prevention and reduction opportunities are taken or not;

11.2.4. Based on its analyses in 11.2.3.b, the site:

- a) Defines target levels and time-bound plans to prevent and reduce point-source adverse emissions to air;
- b) Implements measures to prevent and reduce diffuse and fugitive adverse emissions to air.

11.2.5. The site tracks its performance against the air emissions reduction plans. Where progress in achieving the targeted air emissions levels is lacking, the site revises and amends its reduction plans.

11.2.6. The effectiveness of the site's air emissions reduction plans is regularly verified by a competent party. Where the site has been the subject of controversy in relation to air emissions, it implements a mitigation plan. The effectiveness of the plan is verified by a competent third party.

Guidance:

Adverse emissions to air: This refers to the emissions identified in the European Union's (EU) Air Quality Standards as being known to have adverse impacts. Sites are required to measure and monitor these emissions where they occur as a result of the site's activities. Note that only the listed pollutants must be monitored. The concentrations given in the table are not applicable since they apply to ambient air.

Note that monitoring adverse emissions to air from fugitive and diffuse sources is acknowledged to be challenging. The effort that would have to be put into an effective monitoring system is considered to outweigh the benefits of monitoring. For this reason, ResponsibleSteel does not require sites to monitor fugitive and diffuse adverse emissions. However, sites must demonstrate real effort in preventing and reducing these emissions as they affect local communities and are often not covered well by permits.

Diffuse and fugitive emissions: These occur, for example, in the handling of materials, storage, conveying, charging, coking, pushing, quenching and grinding. They also include drifts from piles, slag heaps and other surfaces, turbulence caused by traffic, emissions from roofs and openings in building. Diffuse and fugitive emissions can be solid, liquid or gaseous and are caused, in particular, by leaks of open processes, displacement losses and diffusion and evaporation processes.

Reduction of diffuse and fugitive emissions can be achieved through structural and operational measures such as the enclosing of selected plant components, covering stockpiles, installing windbreaks or the regular cleaning of driveways.

Emissions of dust (including PM10 and PM 2.5) can be prevented by, for example:

- Minimising charging emissions (e.g. smokeless charging or sequential charging)
- Sealing of openings
- Minimising leakage
- De-dusting
- Fabric filters
- Electrostatic precipitator
- General good maintenance

Criterion 11.3: Spills and leakage

The site works to effectively prevent, detect, mitigate and remedy spills and leakage that cause harm to communities or the environment.

11.3.1. The site implements a preventive maintenance programme aimed at preventing spills and leakage. The programme includes:

- a) Identification of structures, equipment and systems to which the programme applies;
- b) Regular inspections of identified structures, equipment and systems;
- c) Regular testing of such structures, equipment and systems;
- d) The definition of corrective and preventive action where necessary to ensure structures, equipment and systems are in proper working order;
- e) Keeping of preventive maintenance records.

11.3.2. The site has documented procedures for managing the impacts from spills and leakage. The procedures define:

- a) How the impact from spills and leakage is to be analysed and assessed;
- b) How mitigation and remediation of impacts from spills and leakage will be managed;
- c) How mitigation and remediation progress is quantified where spill or leakage occurred.

11.3.3. The effectiveness of the site's prevention programme and management procedures for spills and leakage is regularly verified by a competent party. Where the site has been the subject of controversy in relation to spills and leakage, it implements a mitigation plan. The effectiveness of the plan is verified by a competent third party.

Guidance:

Spill: Accidental release of a hazardous substance that can affect human health, land, vegetation, water bodies, and ground water (adopted from Global Reporting Initiative (GRI) Standards Glossary, 2016)

Leakage: Process in which material is lost through holes or defects.

Criterion 11.4: Waste, by-product and production residue management

The site applies the waste management hierarchy to reduce its impacts from waste and residues and takes account of full life cycle impacts to find the waste management option with the least environmental impact.

11.4.1. The site implements a waste and production residues management plan that applies the waste management hierarchy informed by Life Cycle Thinking (LCT) to reduce adverse impacts from waste, by-products and production residues on humans and the environment. As part of its waste management strategy, the site:

- a) Characterises accruing waste and production residues to identify their potential for waste avoidance and recovery, as well the disposal routes that pose the least risk and impact to humans and the environment for each type of accruing waste and production residue;
- b) Outlines measures for avoiding and mitigating risks and impacts from generation, storage, handling, treatment, transportation and disposal of the different types of accruing waste and production residues;
- c) Defines targets and time-bound plans to reduce the amount of waste that is landfilled on-site or off-site;
- d) Applies a policy that prohibits the discharge of production residues to riverine, submarine and lake environments. Only where riverine, submarine and lake discharge is socially and environmentally the best option, does the policy grant an exception. These exceptional circumstances are documented and reasoned.

11.4.2. The site addresses risks and impacts on humans and the environment associated with the off-site movement and transportation of its accrued waste and production residues. Where the site contracts third parties to conduct these activities on the site's behalf, the site takes action to ensure that risks and impacts on humans and the environment are addressed.

11.4.3. When third parties conduct hazardous waste and production residues storage, transportation and disposal on behalf of the site, the site requires chain of custody and ownership documentation to the final destination.

11.4.4. Any on-site or off-site storage areas that the site uses:

- a) Effectively prevent the release of production residues and leachates to the environment, considering potentially catastrophic events such as floods and earthquakes;
- b) Are routinely checked and controlled by competent parties to ensure their integrity.

11.4.5. Where the site practices waste and production residues storage, it has established a timeline and a roadmap to phase this out in the mid-term.

11.4.6. The site tracks its performance on managing waste and production residues and has evidence of effective strategy implementation.

11.4.7. Effective implementation of the site's waste and residues management plan is regularly verified by a competent party. Where the site has been the subject of controversy in relation to waste and production residues, it implements a mitigation plan. The effectiveness of the plan is verified by a competent third party.

Guidance:

Hazardous and non-hazardous waste: These may be differentiated using national legislation, the European Union's 'List of Waste' or the US EPA Resource Conservation and Recovery Act (RCRA) Regulations. For hazardous waste transported by or on behalf of the site, the 'Basel Convention' shall be used.

Characterise accruing waste and production residue: Characterisation should include the source, quantity, hazardous/non-hazardous, production rate, composition, separation, treatment, storage, transport mode and route, destination and method of disposal.

Measures for improved waste and production residue management: This includes technical measures, operational, production and management controls.

Risks associated with off-site movement and transportation of waste and production residues: These may stem from routes taken, proximity to populated areas, use of sealed containers, regulation regarding transportation of hazardous materials.

Cyanide: In blast furnaces, small amounts of cyanides are produced. The oxides, carbonates and silicates of the alkali metals contained in the coke and the acid additives are reduced and evaporated in the blast furnace. Sodium and potassium vapour react with nitrogen from the injected air and carbon from the coke to form sodium cyanide and potassium cyanide. Where relevant, the site should take account of the International Cyanide Management Code or other relevant best practice to manage cyanide. The International Cyanide Management Code focuses on the safe management of cyanide that is produced, transported and used for the recovery of gold and silver, and on mill tailings and leach solutions. However, the standards of practice described in the Code are applicable to other sectors as well.

Principle 12. Water Stewardship

Objective:

ResponsibleSteel certified sites demonstrate good water stewardship.

Background:

Global pressures on fresh water are rising rapidly. Due to a fast-growing world population and steady economic growth, the demand for fresh water is increasingly exceeding the amount that is available. Climate change will exacerbate the situation, with almost half of the world's population expected to be living in areas of high water stress by 2030. In addition, physical, regulatory and reputational risk means that there is a clear business case for managing water responsibly and sustainably. Water stewardship means that water users take responsibility for their own impacts on the shared resource and work with others to manage it sustainably. This is the approach that the ResponsibleSteel Standard takes to water. The Requirements are intended to align with the standard of the Alliance for Water Stewardship (AWS) and focus on understanding one's own water use and impact, catchment context and shared concerns in relation to water availability and quality - now and in the future. They go on to require that sites engage in meaningful individual and collective action to ensure that the water resources they and others rely on are managed responsibly and sustainably.

The Water Stewardship requirements are not applicable to office and other administrative buildings of a site since their impacts related to the Criteria in this Principle can be considered non-material.

Note that water-related habitat, aquatic species and areas of cultural or religious importance are covered under the Local Communities and Biodiversity Principles.

Criterion 12.1: Water-related context

The site understands the current and future water-related needs and dynamics in its area of influence.

12.1.1. The site's water-related area of influence is defined, taking account of the site's operational boundaries, the sources it draws water from, the locations it returns discharges to, and the catchment(s) it affects and relies on. The site's area of influence is reviewed on a regular basis.

12.1.2. The site contributes to integrated water resource management and policies by engaging in water governance fora. Where these do not exist and where water issues are relevant in the site's area of influence, the site initiates such a forum or engages in other similar platforms.

12.1.3. The site works with relevant stakeholders in its area of influence to identify and understand current and potential future uses of water and shared water challenges of the catchment area. The analysis is updated on a regular basis and considers:

- a) Seasonal and temporal variability in quantity and quality of surface and subsurface waters;
- b) Climate change projections;
- c) Anticipated population growth;
- d) Natural and built water-related infrastructure;
- e) The presence and location of scarce or stressed water sources.

Understanding shared water challenges and risk: The following tools might be useful for sites:

- 'Aqueduct' of the World Resources Institute
- WWF's 'Water Risk Filter'
- 'India Water Tool' developed and maintained by a coalition of companies and organisations

An introductory webinar organised by the World Business Council for Sustainable Development (WBCSD) explains what these tools offer and how they differ. A report on these tools is scheduled for publication in late 2019 and will be available at <https://waterriskfilter.panda.org/en/Explore/WaterRiskReports>.

NOTE: The Alliance for Water Stewardship's standard and guidance are recommended resources for sites to become familiar with and apply the concept of water stewardship.

Criterion 12.2: Water balance and emissions

The site measures the flow of water in and out of its site and the quality of its water withdrawals and discharges.

12.2.1. The locations of the water sources and ultimate water sources that the site draws water from and the locations of the water bodies and ultimate water bodies to which the site returns its discharges are recorded and updated as needed.

12.2.2. The site maintains a water balance for its site and calculates its efficiency of water use.

12.2.3. The site monitors and keeps records of water emissions. Sampling of water:

- a) Is sufficiently frequent to detect and allow management to respond effectively to significant changes;
- b) Is timed so that it takes account of seasonal fluctuations, storm and extreme events that may cause changes in water characteristics;
- c) Always occurs at the same specified points upstream of its water sources and downstream of a wastewater discharge point;
- d) Considers relevant physical, chemical and biological aspects of water quality;

- e) Establishes thresholds aimed at providing early warning of negative changes in water characteristics.

12.2.4. In the absence of applicable regulatory standards, the site adopts and makes publicly available specific water quality objectives for the site, that have been established using credible methodologies and that are in line with prevailing water quality standards.

Guidance:

Credible methodologies or prevailing water quality standards: Examples are the AWS International Water Stewardship Standard, Version 2.0, or the United States Environmental Protection Agency (US EPA) National Recommended Water Quality Criteria.

Criterion 12.3: Water-related adverse impact

The site evaluates its-water related adverse impacts on the local environment and communities.

12.3.1. The site has identified and assessed its current and potential future water-related environmental and social adverse impacts. The assessment:

- a) Considers the quantity of water use and quality of water discharges;
- b) Considers extreme events such as flooding or drought;
- c) Takes account of the views of stakeholders;
- d) Is updated regularly and in the case of significant changes to the site's operations.

12.3.2. The site encourages other commercial water users in its area of influence to conduct their own environmental and social adverse impact assessments.

12.3.3. The site uses its best efforts to combine the findings of its own and other commercial water users' environmental and social adverse impact assessment to understand cumulative impacts in its area of influence.

Guidance:

Water-related impacts: The standard of the Water Stewardship Alliance (AWS) and its guidance is a recommended source to consult on water-related impacts.

Criterion 12.4: Managing water issues

The site addresses water-related challenges and adverse impacts in its area of influence.

12.4.1. The site integrates water considerations in its business planning.

12.4.2. The site engages stakeholders in its area of influence in the development and maintenance of a water stewardship plan. The plan:

- a) Sets time-bound targets in relation to water use efficiency and quality that reflect best practice values for the site's region and type of operation or, where these do not exist, reflect prevailing standards or guidelines;
- b) Sets time-bound targets that minimise any adverse impacts on communities or the environment resulting from the discharges of water from the site;
- c) Outlines how the site will contribute to addressing shared water challenges of the catchment area;
- d) Outlines site measures to relieve any scarce and stressed water sources;
- e) Is updated on a regular basis and made available to the public.

12.4.3. There are documented procedures or action plans for the implementation of the water stewardship plan.

12.4.4. The site tracks and documents its performance against the water stewardship plan. Where progress is lacking, the site reviews and adjusts the plan.

Guidance: N/a

Principle 13. Biodiversity

Objective:

ResponsibleSteel certified sites protect and conserve biodiversity.

Background:

Biodiversity - biological diversity - means the diversity of life in all its forms. The importance of biological diversity to human society is hard to overstate. An estimated 40 per cent of the global economy is based on biological products and processes. However, a recent landmark report by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) concluded that we are facing a global biodiversity crisis with human action being the cause. Biodiversity losses are running at unprecedented levels with up to one million species facing extinction over the next years and decades. Whole ecosystems are in danger and with them the ecosystem services on which we humans depend.

The maintenance of biodiversity is an important and shared responsibility. The ResponsibleSteel Standard requires sites to take stock of what risk and impact they have on biodiversity and to implement a plan to manage these risks and impacts. The Standard also expects sites to respect areas that are protected and conserved under various governance models and to safeguard areas that have been identified as being key for biodiversity. The Standard does not specify explicit Requirements to identify and maintain the benefits of ecosystem services, on the grounds that the site's impacts on ecosystem services will be addressed through the protection of protected areas and habitats, as well as through the application of the Water Stewardship Principle.

The Principles on Noise, Emissions, Effluents and Waste and on Water Stewardship are closely linked with the Biodiversity Principle as a site's performance in these Principles will indirectly help the site achieve the Requirements of the Biodiversity Principle.

Criterion 13.1: Biodiversity commitment and management

The site is committed to protecting biodiversity and applies the mitigation hierarchy to manage its biodiversity risks and adverse impacts.

13.1.1. The site has a public commitment to respect protected and conserved areas and to manage adverse impacts on biodiversity in its area of influence effectively and in line with the mitigation hierarchy. The site's commitment includes the points listed in 13.1.2.-13.1.6. below.

13.1.2. The site does not initiate activities or plan associated facilities in or immediately adjacent to the following areas:

- a) World Heritage sites;
- b) Protected areas of the IUCN protected area management categories I-VI and conservation areas protected under national or local law;

- c) Indigenous and community-conserved areas (ICCAs) unless such activities are endorsed with the Free, Prior and Informed consent of the affected peoples and communities;
- d) Ramsar sites;
- e) Key Biodiversity Areas (KBAs).

13.1.3. In the case of natural habitat, the site does not significantly convert or degrade them, unless all of the following are demonstrated:

- a) No other viable alternatives for development on modified habitat exist within the region;
- b) Consultation has established the views of stakeholders, including affected communities and indigenous peoples, with respect to the extent of conversion and degradation;
- c) Any conversion or degradation is mitigated according to the mitigation hierarchy and designed to achieve no net loss.

13.1.4. In the case of critical habitat, the site does not implement any activities or plan infrastructure, unless all of the following are demonstrated:

- a) No other viable alternatives for development on modified or natural habitat that are not critical exist within the region;
- b) The activities and infrastructure do not lead to adverse impacts on those biodiversity values that constitute the critical habitat, and on the ecological processes supporting those biodiversity values;
- c) The activities do not lead to a net reduction in the global, national or regional population of any critically endangered or endangered species.

13.1.5. In the event of downgrading, downsizing or degazettement of World Heritage Sites, Ramsar sites or protected areas of the IUCN categories I-VI, the site continues its no-go policy;

13.1.6. Where a World Heritage site, Ramsar site or officially protected area is established in, around or adjacent to the area of activity of an existing site, the site ensures that its activities do not lead to adverse impacts on those values for which the World Heritage site, Ramsar site or protected area was designated;

13.1.7. The site has identified and assessed the biodiversity risks and adverse impacts in its area of influence that result from its activities. The assessment has taken account of risks to and adverse impacts on the following:

- a) Protected and community-conserved areas and Ramsar sites;
- b) Species on the IUCN Red List of Threatened Species, categorised as vulnerable, endangered or critically endangered;
- c) Key Biodiversity Areas;
- d) Natural and critical habitat, as well as modified habitat with significant biodiversity value;

13.1.8. The site implements a management plan to address biodiversity risks and impacts in its area of influence that result from its activities.

13.1.9s. The management plan:

- a) Follows the mitigation hierarchy;
- b) If residual impacts are expected, the plan aims to achieve no net loss for natural habitat and a net gain for critical habitat;
- c) If residual impacts are expected, offsets are developed in line with current best practice;
- d) Is responsive to changing conditions and the results of monitoring to take account of the long-term complexities in predicting biodiversity impacts.

13.1.10. The site's biodiversity risks and impacts assessment and the management plan have been verified as being adequate and comprehensive by a competent party.

13.1.11. Where the site has been the subject of controversy, its activities have been verified by a competent independent party as having no adverse impact on World Heritage sites, protected and conserved areas, indigenous and community-conserved areas, Ramsar sites or Key Biodiversity Areas.

Guidance:

13.1.2: Note that the ResponsibleSteel Standard applies to existing sites. This means that sites that were in existence at the time the ResponsibleSteel Standard was approved (05 November 2019) cannot initiate activities or plan associated facilities in or immediately adjacent to areas listed under 13.1.2.

A comprehensive collection of terms and definitions related to biodiversity can be found on <https://biodiversitya-z.org/>.

The following websites and databases may be helpful for sites:

- The IUCN Red List of Threatened Species
- World Database of Key Biodiversity Areas
- World Heritage List
- Protected Planet (for protected areas)
- The IBAT Alliance hosts databases on the IUCN Red List of Threatened Species, Key Biodiversity Areas and Protected Areas, which may assist sites with their biodiversity risk and adverse impact assessment.

IUCN categories I-VI: Where countries do not assign management categories to their protected areas, the site does not initiate activities or plan infrastructure that is incompatible with the value for which the respective protected area was designated.

The **biodiversity risks and impacts assessment** should consider:

- Input received from consultation with stakeholders such as authorities, conservation organisations, research institutions, and local communities;
- Threats to biodiversity, including habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution;
- Direct and indirect impacts on the landscape or seascape where the site operates;
- The importance of ecosystem services to the well-being of communities living in the site's area of influence.

'Guidance for Assessing and Managing Biodiversity Impacts and Risks' has been developed by the Inter-American Development Bank. While it was drafted for countries in Latin America and the Caribbean, the principles and actions outlined in the guidance are applicable elsewhere.

Biodiversity management plan: There is no standard template for a biodiversity management plan because the issues it needs to address are determined by the location, the biodiversity values at the site, and the nature of the site's operations. However, a possible structure might be:

- Biodiversity context
- Prioritisation of biodiversity features and components
- Objectives and targets
- Actions
- Implementation
- Monitoring and surveillance
- Budgets and timelines
- Reporting

Guidance on how to develop such a plan is offered by the World Business Council for Sustainable Development's (WBCSD) Biodiversity Management Plan (BMP). The guidance was developed for the cement sector but is relevant for other sectors as well.

Offset best practice: One example is the IUCN Policy on Biodiversity Offsets.

Annex 1: ResponsibleSteel Standard Terms of Reference

1. Objective

1.1 The objective of the ResponsibleSteel Standard is to support the responsible sourcing and production of steel, as a tool for the achievement of ResponsibleSteel's vision: to maximise steel's contribution to a sustainable society.

2. Change Mechanism

2.1 In order to achieve this objective, the ResponsibleSteel Standard shall:

- a. Define the fundamental elements that characterise the responsible sourcing and production of steel, to the satisfaction of downstream customers, users and civil society supporters;
- b. Define levels of performance in the implementation of these fundamental elements of ResponsibleSteel, that:
 - i. Encourage the broad participation of steelmakers in both developed and developing countries in the ResponsibleSteel programme;
 - ii. Merit the recognition and endorsement of the programme's civil society supporters;
 - iii. Maximise steel's contribution to a sustainable society through the responsible sourcing of its raw materials and management of the impacts of its production.

3. Scope of Application and Issues

3.1 ResponsibleSteel Standard shall be applicable globally and to all types of steel production, including Basic Oxygen Furnace (BOF) steelmaking and Electric Arc Furnace (EAF) steelmaking.

3.2 The ResponsibleSteel Standard shall include Requirements that address the sourcing (and where relevant aspects of processing) of raw materials that are used for the production of steel and which have significant social and/or environmental impacts. Such raw materials include mined materials, refined metals for alloys and coatings, and pre- and post-consumer scrap metal for recycling.

3.3 The ResponsibleSteel Standard shall include consideration of the indirect emissions of greenhouse gases associated with energy generation (scope 2) as well as other (scope 3) indirect emissions of steelmaking.

3.4 The ResponsibleSteel Standard shall include Requirements that address the key societal, social and environmental issues associated with the production of steel and the sourcing of its raw materials,

including: Business Integrity; Climate Change and Greenhouse Gas Emissions; Emissions, Effluent Waste; Water Stewardship; Biodiversity and Ecosystem Services; Human Rights; Local Communities and Indigenous Peoples; Labour Rights; Occupational Health and Safety; Legacy Issues.

4. Recognition of Other Sustainability Programmes

4.1 Where the ResponsibleSteel Standard's objectives can be achieved most effectively through the recognition of performance Requirements defined and verified by other sustainability programmes in accordance with ResponsibleSteel's Requirements, this shall be the preferred approach.

4.2 This approach shall be applied, in the first instance, to the recognition of programmes covering the responsible sourcing of raw materials.

5. Content and Structure

5.1 The ResponsibleSteel Standard shall include introductory sections describing its objectives, its scope of application, and providing a general description of the mechanisms for its verification and of the claims that may be made by businesses that are verified as complying with the Standard's Requirements, and by their customers.

5.2 The ResponsibleSteel Standard may provide for different levels and/or types of claims to be made depending on the level of performance that is achieved, and may be divided into separate parts to reflect this.

5.3 The ResponsibleSteel Standard shall include the date on which it is ratified, and in the case of an updated version any transition period that may apply before the updated version comes into effect.

5.4 The ResponsibleSteel Standard may include sections that are applicable to specific categories of users, if this is necessary to ensure that the Standard can be applied to all categories of users within its scope of application.

5.5 The ResponsibleSteel Standard shall include Requirements for the collection and/or collation of the long-term data necessary for ResponsibleSteel to monitor the efficacy of the ResponsibleSteel Standard in achieving its objectives.

5.6 The Requirements of the ResponsibleSteel Standard:

- a. Shall be drafted so that conformity can be assessed for any applicant within the scope of the ResponsibleSteel Standard without the need for subsequent modification or adaptation;
- b. Shall be drafted to minimise ambiguity in interpretation;

- c. May be expressed in terms of process, management or performance Requirements;
- d. Shall not be intended to favour any specific technology or patented item.

6. Glossary of Key Terms

6.1 The ResponsibleSteel Standard shall include or reference a glossary of key terms required to guide its consistent interpretation and implementation.

Annex 2: The steel sector's core raw materials

List of the most important raw materials used for steelmaking, developed for worldsteel by The Dragonfly Initiative (<https://www.thedragonflyinitiative.com/>), complemented by important raw materials used for stainless steel production.

- Aluminium (metallic)
- Charcoal
- Chromium metal
- Coal
- Metallurgical Coal
- Coke
- Cobalt
- Calcium (cored wire)
- Dolime
- Dolomite
- Ferro-Aluminium
- Ferro-Boron
- Ferro-Chromium
- Ferro-Manganese
- Ferro-Molybdenum
- Ferro-Nickel
- Ferro-Niobium
- Ferro-Phosphorous
- Ferro-Silicon
- Ferro-Titanium
- Ferro-Tungsten
- Ferro-Vanadium
- Graphite
- Iron ore
- Iron (pig)
- Lime
- Limestone
- Manganese metal
- Magnesia
- Molybdenum metal
- Molybdic Oxide
- Nickel
- Nickel niobium
- Scrap
- Silico-manganese
- Tin
- Zinc

Annex 3 (mandatory): Input materials covered, not covered and excluded

1. Input materials covered:

The list below shows the input materials that are covered by the responsible sourcing requirements. The list is based on the report 'Responsible Sourcing and Due Diligence for the Worldsteel Membership', which identifies the most material inputs to the steel industry overall. We added 'lead' and 'oils' to align the below list with the list of input materials covered by the GHG requirements. We also added 'agricultural residues' and 'waste materials' (other than scrap) as steel makers are searching for alternatives to coal-based input materials to support decarbonisation. The list is thought to account for 80 to 90% of the input materials used in iron and steel production, processing and finishing.

- **Iron**
- **Coal**
- **Other mined or quarried input materials:**
 - Bauxite
 - Boron
 - Calcium
 - Chromium
 - Cobalt
 - Dolomite
 - Graphite
 - Lead
 - Limestone
 - Magnesium
 - Manganese
 - Molybdenum
 - Nickel
 - Niobium
 - Oil (heavy as well as light)
 - Phosphorous
 - Silicon
 - Tin
 - Titanium
 - Tungsten
 - Vanadium
 - Zinc
- **Pre-consumer and post-consumer scrap:** Pre-consumer scrap is also referred to as manufacturing or new scrap. Post-consumer is also referred to as end-of-life or old scrap.
- **Agricultural residues:** For example, sugar cane bagasse, wheat straw, corn stover, barley straw, coconut shells.
- **Waste materials:** For example, reclaimed wood, post-consumer plastics, tyres.
- **Wood from plantations:** Only wood and wood-derived products from plantations may be used by steel sites seeking 'Certified Steel' certification. Wood from forests is excluded (see also below). For Level 1, 90% of wood-based input material must be from FSC certified plantations that are covered by an FSC chain of custody

certificate. Only sawdust generated as a by product, and wood pellets made from such sawdust, may be a mix of plantation- and forest-derived sawdust as it is not feasible to keep sawdust from different sources separate.

The input materials are usually listed in their raw, unprocessed form. If the steel site that aims to achieve 'Certified Steel' certification uses these materials in raw or processed form, the responsible sourcing requirements must be applied to them. For example:

- Raw iron ore and its processed forms such as pellets, sinter, pig iron, DRI and HBI are all covered by the responsible sourcing requirements
- Likewise, any form of coal, such as anthracite, coking coal or pulverised coal, is part of the responsible sourcing requirements
- Nickel metal, nickel oxide sinter, nickel pig iron are covered as they are based on nickel
- Wood from plantations and its product 'charcoal' are covered too.

If iron, coal or any other input material covered by the responsible sourcing requirements is used in processed form at the site that applies for 'Certified Steel', the respective requirement applies to the main input materials used by the supplier of the processed material. For example:

- Where a site uses pig iron, the main input materials used by the supplier will be iron ore and coal, charcoal, hydrogen or natural gas, plus limestone. Note that hydrogen and natural gas are currently not covered by the responsible sourcing requirements, so none of the requirements apply to hydrogen and natural gas. They do apply to the other key input materials though.
- For nickel pig iron, the main input materials are nickel ore, coal and a mixture of sand and gravel. While sand and gravel are not covered by the requirements, nickel and coal are covered and the requirements therefore apply;
- Where a site is a steel processing site that receives, for example, slabs, billets or blooms as input materials, the crude steel production sites that it sources from must be 'Certified Steel' certified for the steel processing site to demonstrate achievement of the responsible sourcing requirements;
- Note that producers of pre-processed input materials, such as DRI, HBI or pig iron, cannot themselves become 'Certified Steel' certified. However, the responsible sourcing requirements apply to them.

2. Input materials not covered:

The below input materials are not covered by the responsible sourcing requirements. This means that they can be used at steel sites, but there are currently no ESG expectations attached to them:

- **Home scrap:** Scrap from a downstream steel production process within the steelworks (e.g. rolling, coating) that is returned to steel making processes (e.g. BOF or EAF)
- **Internal scrap:** Scrap from a crude steel making unit that is then recycled within the same unit process (e.g. basic oxygen furnace (BOF) or electric arc furnace (EAF) (adapted from ISO 20915:2018(E) Life cycle inventory calculation methodology for steel products)
- **Hydrogen**
- **Natural gas**
- **Paints**

Input materials that are not listed as 'covered' or 'excluded' are considered to fall into the 'not covered' category.

3. Input materials that are excluded (test phase):

The following input materials are excluded. This means that they may not be used by steel sites seeking 'Certified Steel' certification:

- **Energy crops.** For example, maize, miscanthus (elephant grass) or short rotation coppice like poplar and willow
- **Wood from forests**
- **'Controlled Wood'**, meaning wood and wood-based products labelled as 'FSC MIX'.

Stakeholder views on whether these materials should be covered by the responsible sourcing requirements differ widely. Some fear that ResponsibleSteel could drive demand for energy crops if they were covered by the responsible sourcing requirements. Given that energy crops rely on arable land that is limited in quantity, this could prompt complex issues like land use change and food insecurity. Stakeholders also debate what is the better use of input materials like forest wood, in longer-lasting higher value products (e.g. construction or furniture) or as a bioenergy in industrial production processes. Others consider that where such sources are covered by recognised ESG certification programmes, this ensures responsible sourcing, and indeed that ResponsibleSteel should encourage the expansion of such certification to support the sustainable management of forests and also short rotation woody biomass.

Paris-aligned climate scenarios typically indicate that biological input materials will play a rather marginal role in the steel industry's decarbonisation due to the limits on the availability of sustainably sourced materials of biological origin. In the International Energy Agency's [Sustainable Development Scenario](#), for example, the share of bioenergy in the sector's total energy input mix increases from less than 1% to 5% in 2050. The modelling developed for the Mission Possible Partnership's [Net Zero Steel Sector Transition Strategy](#) indicates in all scenarios that the steel sector would peak its use of bioresources in 2030 at less than 2% of the estimated truly sustainable bioresources available, and thereafter decline. By excluding the two categories listed, that are subject to particular stakeholder concern, but including agricultural residues and wood from FSC certified plantations, the ResponsibleSteel Standard avoids the risk of contributing to the issues outlined above whilst allowing for sufficient opportunity to source biological inputs responsibly.

The ResponsibleSteel Standard will be reviewed at least every five years and the list of input materials that are covered, not covered and excluded may change following these reviews.

Annex 4 (informative): Sources to understand supplier ESG performance

Here, we provide some examples for site-, company, country- and material-level sources that might help steel companies understand their suppliers' ESG performance.

Site-level information on ESG performance:

The standards of the input material programmes that ResponsibleSteel initially intends to recognise (see below for specifics) cover all ESG topics one would commonly consider when analysing and assessing ESG risks associated with specific sites of a supplier. Steel companies are asked to promote these programmes to their suppliers. Application of their standards will help steel companies understand suppliers' current ESG performance and, where the standards are applied in third-party audits under the recognised programmes, they will also help meet the requirements of Criterion 3.4. Currently, the standards of the input material programmes that ResponsibleSteel intends to recognise are:

- [Bettercoal Code](#). Where a mine (called Bettercoal Supplier) 'Misses' a certain category of the Bettercoal Code, this should be considered a high risk;
- [IRMA Standard for Responsible Mining](#). Where a mine 'Does not meet' a certain chapter of the IRMA Standard or any of its [40 critical requirements](#), this should be considered a high risk;
- [The 9 TSM Protocols and the TSM Voluntary Responsible Sourcing Supplement](#). Where a mine or a processing site comes out as 'Level C' in any criterion of the TSM Protocols or where 'No' is the response to any criteria that ask for a Yes/No judgement, this should be considered a high risk;

In cases where the supplier to a steel site is another steel site or is a stand-alone coking, sintering, pelletisation, HBI, DRI or pig iron production plant, having ResponsibleSteel 'Certified Site' status can serve as an indication of low ESG risk of that particular supplier since the certificate is only awarded if there are no major non-conformities with the ResponsibleSteel Standard. Issued site-level certificates are listed on the ResponsibleSteel website under '[Issued certificates](#)'.

The results of third-party audits against various [ISO standards](#) can give useful pointers to ESG risks if suppliers share the audit reports with the steel companies. Examples are:

- ISO 14001 for environmental management;
- ISO 45001 for health and safety;
- ISO 50001 for energy management.

Where the audits resulted in major non-conformities, these should be considered high risk.

It should be noted that none of these ISO standards consider social issues in a comprehensive manner. For social issues, third-party audits of the following nature can be valuable:

- on the basis of the ISO 26000 guidance on social responsibility
- against SA8000.

Other tools that may be used to understand the ESG performance of a specific site of a supplier are:

- the Sedex Supplier Risk Assessment Tool called [Radar](#);
- the business sustainability ratings offered by Ecovadis.

Both cater for site and company-level assessments. Radar can be used as a self-assessment tool or can be used by companies to assess their suppliers, meaning it is a second-party assessment. The Ecovadis rating criteria are established by Ecovadis and it is also Ecovadis that carries out the desk-top based assessments.

Company-level information on ESG performance:

There are a range of tools that might be used to understand ESG performance at company-level, where site-level information cannot be obtained:

- [Assent Supply Chain Sustainability Platform](#);
- [Ecovadis](#);
- [ELEVATE Responsible Sourcing Assessment](#) (ERSA), developed and applied by ELEVATE with a focus on social issues;
- [Risk Readiness Assessment](#) (RRA) by the Responsible Minerals Initiative, an entry-level self-assessment tool;
- Sedex Supplier Risk Assessment Tool ([Radar](#)).

It should be noted that the ‘auditable mechanism’ described under Criterion 3.2 may be helpful with Criterion 3.3 as well: Where suppliers are not willing to share information on the ESG performance of their own suppliers or of individual sites of their suppliers, they might be willing to share information in anonymised form with the steel site. The information will enable a dialogue to be started with suppliers on how ESG issues identified in their supply chains may be addressed. The information provided by suppliers would have to be verified for a sample of suppliers using the ‘auditable mechanism’ as described in Criterion 3.2. The tools listed above provide examples of the types of evidence that ResponsibleSteel auditors would look for.

In case the ResponsibleSteel auditors come across any inconsistencies in the suppliers’ information, they will inform the steel site of the nature of the inconsistencies so the site can act on this, all the while adhering to the clauses of the NDA.

Input material and country-level ESG risks:

The below tools might help identify and classify ESG risks associated with individual materials, supply chain stages and specific countries where the materials are extracted or processed:

- [ESG Materials Score](#) by Levin Sources;
- [Material Insights by TDi Sustainability and the Responsible Minerals Initiative](#);
- [Raw Material Outlook](#) by Drive Sustainability;
- Country Profiles from [Delve](#) provide a summary analysis of the artisanal and small-scale mining sector for a specific country;
- The [CSR Risk Check](#) by MVO Nederland helps identify industry and country-level risks. It also provides possible risk management measures;
- The European Commission Directorate General for Trade (DG TRADE) has contracted RAND Europe to develop an indicative, non-exhaustive list of conflict-affected and high-risk areas ([CAHRAS](#));
- Note that the OECD has issued sector-specific guidance together with the FAO that might be useful for risk management in agricultural supply chains: [OECD-FAO Guidance for Responsible Agricultural Supply Chains](#) (2016).

If none of the tools listed above are used by a steel company or where a certain country is not covered by them, the approach described in Annex 5 may be applied. It uses a combination of indices to understand how a specific country

might be associated with ESG risks and the results indicate how complex the context of a supplier might be. The used indices are:

- CPI = [Corruption Perceptions Index](#)
- EPI = [Environmental Performance Index](#)
- HFI = [Human Freedom Index](#)
- WGI = [World Governance Index](#)

If a supplier or a specific site of a supplier that provides input material to the steel site is based in a conflict-affected and high risk area (CAHRA, see also the guidance above) and the steel company cannot obtain information on the supplier's ESG performance, the supplier and their sites should be considered high risk.

Steel companies might use other tools not listed in this guidance to understand ESG performance of suppliers and their individual sites, of materials and countries. The tools should have the following characteristics:

- Cover human and workers' rights, degradation of the environment, impact on corruption and conflict;
- Draw on legitimate risk evaluation indices and sources;
- Have been developed with input from different external stakeholders;
- Results are independently verified;
- Are maintained and kept up to date.

Classifying high, medium and low risk

Below, we propose a risk assessment matrix that can be used to classify the level of risk by plotting the likelihood of the risk becoming a reality against the severity of the consequence of this.

The likelihood can be:

- Definite: Almost certain, meaning over 80% chance, to occur in relation to the direct or indirect supplier or their site, or in relation to the material or the country in question
- Likely: 60 – 80% chance of occurrence
- Occasional: 30 to 60% chance of occurrence
- Seldom: 10 - 30% chance of occurrence
- Unlikely: Less than 10% chance of occurrence.

The severity of the consequence can be:

- Catastrophic
- Critical
- Moderate
- Marginal
- Insignificant

Severity is usually judged by looking at three factors:

- Scale: How grave would the impact be if the risks became a reality?
- Scope: How many people would be affected?
- Remediability: How difficult would it be to restore the situation to the state it was in before the impact occurred?

Risk assessment matrix:

Likelihood	Definite	High	High	High	High	High
	Likely	Medium	High	High	High	High
	Occasional	Medium	Medium	Medium	High	High
	Seldom	Low	Low	Medium	Medium	High
	Unlikely	Low	Low	Low	Medium	Medium
		Insignificant	Marginal	Moderate	Critical	Catastrophic
	Severity					

The way the risk matrix is applied should align with the [United Nations Guiding Principles on Business and Human Rights](#), which means the following: Where prioritisation of risks is necessary because there are too many to address them all at once, companies should first seek to avoid and reduce those risks that may be the most severe from the perspective of affected stakeholders. This means that risks that are low-likelihood and high-severity have to be prioritised, just like risks that are high-likelihood and low-severity. The severity of the (likely) impact should drive the company’s approach to risk management. In looking at risk, companies should also focus on the (likely) impact on the affected stakeholders rather than on the (likely) impact on business. This is distinct from traditional business risk prioritisation.

See Criterion 3.3 for examples of ESG risks that should always be prioritised.

Annex 5 (mandatory): Principles for the Responsible Management of Scrap

Establishing fully responsible scrap supply chains globally can only be achieved on the basis of a common understanding of ‘responsibility’ and through collaboration. The Principles for the Responsible Management of Scrap are a set of good practices, developed with input from the steel recycling industry, to help standardise expectations on management and improve ESG performance in the steel recycling industry.

The Principles can be applied as a stand-alone tool, can be integrated into or appended to supplier codes of conduct, can be reflected in relevant policies or procedures, used as the basis for ESG risk assessment by steel companies and their supply chains or in any other way deemed appropriate.

The Principles are to:

1. Collaborate to help meet the ResponsibleSteel mission, while keeping markets and trade flows free, avoiding protective and trade restrictive measures
2. Recognise and fairly reflect responsible supply practices in commercial decision making
3. Enable the recycled content in steel production to be maximised as a common goal of the steel and recycling industry to reduce the impacts of climate change and other negative external effects
4. Operate legal and ethical trading practices
5. Procure from and supply to responsible customers/counterparties (Know your customer/counterparty)
6. Improve knowledge of ESG risks and the potential for positive impact through effective supply chain mapping and assessment

7. Maximise high-quality segregation during manual and mechanical processing to avoid contaminants and pollution and to maximise the value obtained from the scrap. In particular, ensure that scrap with high chromium or nickel content is adequately sorted for use as an input material in stainless steel production
8. Monitor scrap consignments for radioactivity and document test certificates and conformity statements
9. Ensure the effective management and treatment of environmental pollutants avoiding untreated and hazardous materials and emissions escaping into air, water and onto land
10. Ensure the sound and legal disposal of reprocessing waste streams, encouraging circular economy principles. Do not engage in practices such as open burning and open dumping where steel is sourced from mixed materials, such as from old tyres
11. Develop and maintain good housekeeping practices during collection, including handling, transportation, logistics and at facilities
12. Enable safe manual and mechanical dismantling, handling and processing practices including the provision of appropriate Personal Protective Equipment (PPE)
13. Provide support and compensation for work-related death, injuries or illness to workers and their dependents
14. Respect internationally recognised Human Rights
15. Not use or tolerate child, forced and compulsory labour
16. Not engage in discrimination of any kind, with a particular focus on vulnerable and marginalised groups
17. Ensure fair and timely payment of workers to at least the legal minimum wage or a recognised equivalent when not defined in law
18. Ensure fair treatment of workers that meets local legislation or ILO standards, at a minimum including for working hours, breaks, defined and communicated contractual terms and conditions, collective bargaining opportunities and fair disciplinary practices
19. Communicate these Scrap Principles further up the scrap supply chain
20. Support ESG capacity further up the scrap supply chain, through training, awareness raising, and involvement in initiatives to improve ESG performance
21. Improve ESG achievement tracking and chain of custody practices so that confidence in responsible sourcing can be gained without compromising commercial arrangements.

Good housekeeping practices include adequate storage space and practices, dedicated and covered (where appropriate), safe spaces for hazardous materials, proper labelling and controls on materials handled, keeping working areas clear of debris, documentation of material flows through premises, maintaining vehicles and equipment and awareness raising and training.

Annex 6 (informative): Further information on initiatives relevant for scrap

The Bureau of International Recycling (BIR) has published a series of tools and guidance which align to ISO standard requirements and incorporate international regulatory requirements relating to the recycling industry, such as end-of-waste procedures complementary to the Council of the European Union's Regulation (EU) No 333/2011, OECD core performance elements for environmentally sound management and the 2009 Chinese Regulations Governing the Inspection, Quarantine and Supervision of Imported Solid Scrap Usable as Raw Materials.

Other relevant standards and tools include, but are not limited to:

- Institute of Scrap Recycling Industries (ISRI) [RIOS standard for the recycling industry](#)
- [R2 – Electronics waste recycling standard](#)
- [ISO/AWI 59014: Secondary materials — Principles, sustainability and traceability requirements](#) (under development)
- [SA 8000](#) for social accountability certification
- [Bureau of International Recycling, Tools for Quality Management](#)
- [Bureau of International Recycling, Tools for Environmentally Sound Management](#)
- [Bureau of International Recycling, Tools for Occupational Health and Safety Management.](#)

Annex 7 (informative): Risk factors and assessment of scrap supplies

Risk Assessment: On ongoing, proactive and reactive process through which corporate owners and site management assess their and their supply chains' management practices and performance in respect of human and worker rights, degradation of the environment and impact on corruption and conflict.

The information below is not a comprehensive description of how to conduct a risk assessment nor is it a complete list of sources and relevant information. It is selected guidance relevant to a scrap supply chain risk assessment that should be supplemented by other sources and approaches. As well as extensive guidance provided by the OECD for due diligence, there are many other sources which may be useful as well as proprietary tools and services which can assist in or provide a risk assessment.

Scrap risk factors: Risks relating to scrap input material can vary significantly. A risk assessment should consider the following factors:

- The country of origin: Meaning when the scrap first becomes scrap after its previous use. This recognises that regulation and enforcement of regulation varies between countries and that known risks are prevalent in certain countries.
- The supplier: Existing knowledge of a supplier can influence risk assessment as can the size and type of supplier, recognising that risks may relate to the supply chain stage. For example, risks from poor worker conditions and human rights infringements during shipping may be considered for traders and shipping, while health and safety and environmental pollution risks may be more apparent at scrap aggregation and processing sites.
- The type of material: Pre-consumer scrap may present less ESG risks than post-consumer scrap and the ability to generate evidence may vary depending on the type of scrap.
- The value and format of transactions: Cash purchases are legitimate and acceptable practices. However, they present a greater risk of money laundering and corruption and are more common in certain geographies.
- Unusual circumstances: For example, unusual trading patterns, changes to typical supplier activity, new sources, unavailability of statutory trading documentation may raise risk.
- Established risk profiling information: Some references are provided in the risk assessment guidance below and there are many other sources of information that may be relevant to your scrap supply chain.

For scrap, ResponsibleSteel is initially focusing on the direct suppliers and the countries of origin for suppliers further upstream.

For ESG risk assessments of direct suppliers, the following proprietary services may be used to support supply chain risk assessment at company and sometimes site-levels: [Assent Supply Chain Sustainability Platform](#), Ecovadis, ELEVATE Responsible Sourcing Assessment (ERSA), Responsible Minerals Initiatives (RMI) - Risk Readiness Assessment (RRA), Sedex Supplier Risk Assessment Tool (Radar, which also provides for site assessments), [Sourcemap](#), [Track Record Global](#), to name a few. Other services are available and it should be noted that the [Material Insights](#) platform will soon feature a scrap profile.

Where a company has an existing approach to risk assessment for its scrap supply chain, or uses such a proprietary service, it should be based on the following characteristics:

- it covers human and workers' rights, degradation of the environment, impact on corruption and conflict;

- it draws on legitimate risk evaluation indices and sources;
- it has been developed with input from different external stakeholders;
- its results are independently verified;
- it is maintained and kept up to date.

For country-based ESG risk assessments, the following information may be used, extracted from the August 2020 report ‘Responsible Sourcing of Scrap Metal as a Raw Material for Steel Making’, which was drafted by Track Record Global for ResponsibleSteel. The full report is available to ResponsibleSteel members on request. It can be used to provide an indication of ESG issues in individual countries. It can be further combined with internationally recognised, country-based indices of risk, as detailed below.

	shipbreaking activity	processing activity	metal theft	money laundering	material quality	regulatory strength
AFRICA						
Egypt	-	⊗	⊗	⊗	-	⊗
South Africa	-	-	⊗	⊗	-	⊗
AMERICA						
USA	-	-	⊗	⊗	-	-
Canada	-	-	⊗	⊗	-	-
Brazil	-	-	⊗	⊗	-	⊗
Mexico	-	-	⊗	⊗	-	⊗
Argentina	-	-	⊗	⊗	-	⊗
ASIA						
China	⊗	⊗	⊗	⊗	-	⊗
India	⊗	⊗	⊗	⊗	⊗	⊗
Japan	-	-	⊗	⊗	-	-
Pakistan	⊗	⊗	⊗	⊗	⊗	⊗
S. Korea	-	-	⊗	⊗	-	-

	shipbreaking activity	processing activity	metal theft	money laundering	material quality	regulatory strength
Iran	-	⊗	⊗	⊗	-	⊗
Taiwan	-	-	⊗	⊗	-	-
Bangladesh	⊗	⊗	⊗	⊗	⊗	⊗
EUROPE						
Germany	-	-	⊗	⊗	-	-
Turkey	-	-	⊗	⊗	-	-
Italy	-	-	⊗	⊗	-	-
Ukraine	-	⊗	⊗	⊗	-	⊗
France	-	-	⊗	⊗	-	-
Spain	-	-	⊗	⊗	-	-
Poland	-	-	⊗	⊗	-	-
Belgium	-	-	⊗	⊗	-	-
OCEANIA						
Australia	-	-	⊗	⊗	-	-
New Zealand	-	-	⊗	⊗	-	-

Legend:

- ⊘ moderate concern
- ⊗ serious concern
- ⊗ critical concern

In addition, for country of origin-related risk assessments, the following indices and thresholds can be used:

Risk		
Low	Medium	High
Scrap country of origin with: CPI score > 50 EPI score > 60 HFI score > 7 WGI aggregate score > 60	Scrap country of origin with: CPI score 30 - 50 EPI score 60 - 50 HFI score 7 - 6.5 WGI aggregate score 40 - 60	Scrap country of origin with: CPI score < 30 EPI score < 50 HFI score < 6.5 WGI aggregate score < 40

CPI = [Corruption Perceptions Index](#)

EPI = [Environmental Performance Index](#)

HFI = [Human Freedom Index](#)

WGI = [World Governance Index](#)

Regarding the World Governance Index (WGI):

To get an aggregate WGI score for a particular country, go to the WGI website, select 'Country Data' view, then select 'multiple indicators' from the dropdown indicator menu and check all indicators, enter the year and country.

Whichever risk is highest should be adopted as the risk assessment for that country. Details of the risk profile can inform the scrap ESG performance improvement strategy.

General guidance on carrying out risk assessments and due diligence:

The commentary to the UN Guiding Principles on Business and Human Rights (item 17) acknowledges that carrying out due diligence on every individual relationship may be impossible in some circumstances. In such cases: "...business enterprises should identify general areas where the risk of adverse human rights impacts is most significant, whether due to certain suppliers' or clients' operating context, the particular operations, products or services involved, or other relevant considerations, and prioritise these for human rights due diligence". For scrap supply, this can be informed by risk factors provided in this guidance.

Key choke points in supply chains are key points of transformation that include relatively few actors that handle or process the material and have higher visibility and control over upstream stages. In the scrap supply chain these are likely to be the initial scrap consolidation, collection, shredding, grading and sorting activities that happen at a local or regional level within countries before the scrap is sold onto domestic and international markets. Typically, these processes occur at businesses operating a physical scrap yard and may be linked to transport hubs, ports and shipments. Risk assessments may seek to focus on these choke points and activities.

Small or medium-sized enterprises with many business relationships may face resource constraints in carrying out effective risk assessments. They should look to existing resources such as public information on risks in certain supply chains. They should also work with their industry associations to obtain technical assistance as appropriate.

Traders are often a chokepoint where risk assessment information can be restricted. The examples below offer some guidance on opportunities for the risk assessment/due diligence of particular trading types. (Edited from Source: Box 21, p32 of the Commodity Trading Sector Guidance on Implementing the UN Guiding Principles: High level scenarios: The Swiss Government and the Institute for Human Rights and Business, 2018)

1. Commodity Futures Exchanges: In cases when a seller and a buyer are matched by a commodity futures exchange, the parties involved are typically unable to undertake prior due diligence on the other party, including supply chain due diligence. Enterprises could, as part of their policy commitment to the ResponsibleSteel Scrap Principles, individually and collectively encourage exchanges to include assessment of

ESG risks as part of contract specifications. Exchange deliveries are typically treated as low risk (with respect to performance), but these should be treated as higher risk for human rights, labour conditions and environmental due diligence.

2. **Commodity Brokers:** In cases when a seller and a buyer are matched by a commodity broker, that broker will typically be given a “permitted counterparties” list by its client that includes all the parties with whom that client is prepared to be matched. That list will contain only the names of companies that passed the client’s Know Your Counterparty/Customer processes and had credit limits put in place in respect of it. Commercially reasonable due diligence for inclusion on a permitted counterparties list can include human rights, ethical practices, labour conditions and environmental due diligence provisions.
3. **Seller/Buyer Relationships:** In cases when a seller and a buyer form a relationship outside a market (exchange, trading platform or network of brokers) due diligence will depend in part on what is achievable prior to the first transaction. Clauses should be included in contract terms that permit a termination of the contract in the event that a code of conduct is found to have been breached. This may allow time for a buyer to conduct more due diligence between the time of entering into the contract and the time of performance of the contract. Where the relationship is to be continued over time, it is usual to conduct more comprehensive due diligence, for example reviewing or requesting (if not publicly available) code of conduct or policies, Health, Safety, Security, Environment (HSSE) records, sustainability reports (if applicable) and additional checks on the company and its management from different systems and sources a company has access to, including resources on the ground.
4. **Spot Supply Contracts:** In cases when a seller and a buyer enter into a spot supply contract where the commodities are already in transit (for example on board a vessel) then it is likely that the seller will give no opportunity for due diligence other than to supply required documents (quality and quantity certificates, origin certificate, etc). Enterprises should treat these types of purchases as high risk as it is difficult to verify the accuracy of the certificates or to conduct further due diligence. New digital technologies are being developed in an effort to address these concerns. Industry-wide action will be required to address these high risk practices.

For further detail on potential risk assessment documentation regarding environmental impact of relevance to traders, please see: [Follow-up to the Indonesian-Swiss country-led initiative to improve the effectiveness of the Basel Convention](#). Framework for the environmentally sound management of hazardous wastes and other wastes, June 2013.

Additional information in relation to reducing risks related to scrap procured from higher risk sources, including from developing countries can be found in ISO/IWA 19:2017(E) Guidance principles for the sustainable management of secondary metals.

For further information on expectations of due diligence in conflict-affected and high risk areas see: OECD 2016. [OECD Due Diligence Guidance For Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#), Third Edition.

Annex 8 (informative): Background to Criteria 3.2 and 3.4

Background to Criterion 3.2: Know your upstream supply chains

We acknowledge that it is a big challenge to know 100% of supply chain links and to know these at all times. Especially when input material is purchased on spot markets, via brokers or traders, it might not always be possible to find out the identity of more distant suppliers. However, if supply chain links are not known, steel companies will not be able to understand the ESG risks and impacts associated with these materials to guide their sourcing decisions. For this reason, ResponsibleSteel's vision is that, eventually, 100% of supply chain links are known. This will take time, but tightening regulations, pressure from downstream customers, investors, civil society and other stakeholders, as well as technological advances will help achieve this. While ResponsibleSteel's requirements currently do not specify that 100% of supply chain links must be known, our intention is that the next iteration of our requirements will do so and this will form the basis of member and stakeholder consultation when the time comes.

Note that ResponsibleSteel will consider developing a platform or adopting an existing platform for collecting and safely sharing supplier information among ResponsibleSteel certified entities to help keep administrative burden low for both steel companies and suppliers of input materials. Whether such a platform is a feasible option for ResponsibleSteel will be discussed with our members.

Background to Criterion 3.4: Strengthen and account for responsible sourcing

Criterion 3.4 is divided into 4 levels. For level 1, it requires that a large share of input material used at the steel site comes from suppliers that are committed to a recognised input material programme. For levels 2, 3 and 4, suppliers must have achieved a pre-determined ESG performance level under a recognised programme, with the required performance increasing from one level to the next. To prove that the required input material share is achieved under levels 2 to 4, an unbroken Chain of Custody has to be in place, starting with the sites of origin and ending with the respective steel site. We refer to this as 'upstream Chain of Custody'. In the context of ResponsibleSteel, upstream Chain of Custody means that input material from different suppliers can be blended and mixed throughout the supply chain, but that the share of input material from sites of origin and upstream processing that are part of a recognised input material programme is recorded at each supply chain stage and that related information is transferred from one stage to the next. Suppliers may sell this share as 'CoC Input Material'. The Chain of Custody model we aim to establish will monitor the movement of input material through the supply chain, but it will not make it possible to trace individual shipments or individual components in a steel product back to the place where the raw material was extracted or harvested. Full traceability would require that 'CoC Input Material' is kept separate from other input material on-site at steel companies and at their suppliers. Since the steel sector relies on many different materials from many different suppliers, this is deemed too complex to achieve. In essence, our Chain of Custody will not create a link between the physical input material and the associated paper trail. This means that even if the delivery note of the supplier or other relevant documentation states 'CoC Input Material', the actual provided input material might not originate from a mine or forest management unit that participates in a recognised input material programme. The purpose of a Chain of Custody is to create trust that the share of input material that is claimed to be from responsible suppliers does indeed come from suppliers with decent ESG performance. If correctly implemented, our proposed Chain of Custody model will do that, but readers should be aware of the disconnect between the physical input material and the associated paper trail. The Chain of Custody model we want to implement is referred to as 'mass balance'. It is widely used in other sectors and this [short video illustrates how mass balance works](#) (provided by the Rainforest Alliance).

'CoC Input Material' can only be sold in supply chains with an unbroken Chain of Custody. Where extraction sites or upstream processing sites do not meet the required ESG performance under that programme, the Chain of Custody is

broken and suppliers cannot sell the respective input material as 'CoC Input Material'. The same applies if direct and indirect suppliers do not record 'CoC Input Material' or do not transfer related information to their customers.

Responsible sourcing is a shared supply chain effort and an intact Chain of Custody can only be realised if steel companies and their supply chains work together. Initially, we will not require that suppliers become certified to a full-fledged Chain of Custody Standard. Instead, the requirements we have outlined below in levels 2 to 4 are the starting point to establishing a robust Chain of Custody system in steel supply chains. This approach recognises the current immaturity in the steel sector in applying Chain of Custody standards. Going forward, however, we will expect that supply chain partners achieve Chain of Custody certification to protect ResponsibleSteel and its members from risk of false claims related to responsible sourcing. To this end, we will seek to recognise Chain of Custody Standards that already exist or are under development, such as those of the Aluminium Stewardship Initiative (ASI), the Forest Stewardship Council (FSC) or the Initiative for Responsible Mining Assurance (IRMA). The requirements outlined in this document are thought to be a suitable stepping stone to alignment with these Chain of Custody Standards. We will also work with any recognised input material programme to make sure that their systems enable the establishment and maintenance of an unbroken Chain of Custody. The Chain of Custody requirements outlined in Criterion 3.4 will be subject to a 12-month test phase to ensure they are fit for purpose.

In light of the above and to prepare for a full Chain of Custody system, steel companies will have to ask their direct and indirect input material suppliers - whether they are traders, brokers, processing or sites of origin - to contribute to establishing a Chain of Custody. Some modification to the accounting systems of suppliers and steel companies will be needed to record incoming and outgoing 'CoC Input Material', to mark relevant shipments as 'CoC Input Material' and to determine the share of 'CoC Input Material' compared to the overall quantity of received input material. It should be noted that Chain of Custody certification is common practice in other sectors such as forestry, fisheries and agriculture and should become standard practice in steel supply chains too.

Note that the Chain of Custody requirements initially do not apply to scrap.

Annex 9 (informative):

General considerations in relation to responsible sourcing

<p>Responsible sourcing is a journey</p>	<ul style="list-style-type: none"> • Origin of input material is often not known, meaning the ESG performance of suppliers is often not known • Only a fraction of suppliers can currently provide independent evidence of performance across the full spectrum of ESG issues
<p>It is complex</p>	<ul style="list-style-type: none"> • Steel company influence on indirect suppliers is often low • There are many materials and many suppliers, and mixing and blending of material throughout supply chains is a reality • We are dealing with supply networks rather than supply chains
<p>One of many challenges</p>	<ul style="list-style-type: none"> • The 12 Principles for ‘Certified Site’ with their 370 requirements must be met by steel sites as a prerequisite to ‘Certified Steel’
<p>Keep it manageable</p>	<ul style="list-style-type: none"> • Focus on materials that are most closely associated with steel production and processing • Build on existing and recognised programmes for verifying supplier ESG performance • Potentially develop an online platform for managing supplier engagement
<p>Make it relevant</p>	<ul style="list-style-type: none"> • Different requirements for extracted materials and for scrap to reflect the structural differences of the sectors • Requirements will be reviewed at least every 5 years, meaning they can be adjusted if they are not found to be effective or achievable
<p>Be transparent and truthful</p>	<ul style="list-style-type: none"> • Communicate clearly what our responsible sourcing requirements entail and what participating steel sites have achieved to build trust with stakeholders and to avoid raising false expectations • The claims that certified entities can make, i.e. the messages they are allowed to use to communicate their certification, have to be proportionate to what has been achieved

ANNEX 10: Materials for which the upstream GHG emissions must be considered under Requirement 10.3.3.

Gas fuel

- Natural gas
- Coke oven gas
- Blast furnace gas
- BOF gas
- Town gas

Liquid fuel

- Heavy oil
- Light oil
- Kerosene
- LPG

Solid fuel

- Coking coal
- BF injection coal
- EAF coal
- Sinter/BOF coal
- SR/DRI coal
- Steam coal
- Coke
- Charcoal

Auxiliary material

- Limestone
- Burnt lime
- Crude dolomite
- Burnt dolomite
- Nitrogen
- Argon
- Oxygen

Ferrous-containing material

- Pellets
- Sinter
- Hot metal
- Cold iron
- Gas-based DRI
- Coal-based DRI
- Hot briquetted iron (HBI)

Alloys

- Ferro-nickel
- Ferro-chromium
- Ferro-molybdenum

Modified list of materials based on ISO 14404-1:2013 Table 2, and ISO 14404-2:2013 Table 2

ANNEX 11: Provisional ResponsibleSteel default embodied GHG values

	Unit	Original data source	Basis for default (see notes)	Default embodied GHG value (tCO ₂ e/unit)
Ferrous containing materials				
• Cold iron, charcoal based	t	CRU methodology for RS	a	2.350
• Cold iron, generic	t	CRU methodology for RS	a	2.623
• DRI, coal-based	t	CRU methodology for RS	a	2.623
• DRI, gas-based	t	CRU methodology for RS	a	1.219
• Granulated pig iron (GPI)	t	CRU methodology for RS	a	2.623
• Hot briquetted iron (HBI)	t	CRU methodology for RS	a	1.219
• Iron ore	t	worldsteel LCI 10	a	REDACTED
• Pellets	t	CRU methodology for RS	a	0.235
• Scrap	t	NA	b	0.000
• Sinter	t	CRU methodology for RS	a	0.365
• Steel slab, BOF	t	ResponsibleSteel level 1 performance threshold value for the production of steel with 15% scrap content	a	2.920
• Steel slab, EAF	t	ResponsibleSteel level 1 performance threshold value for the production of steel with 95% scrap content	a	0.570
Alloys and metallic additives				
A replacement value equivalent to the ResponsibleSteel level 1 performance threshold value for the primary production of steel from iron ore shall be used for the determination of the upstream indirect (Scope 3) GHG emissions for all non-ferrous metal and ferro-alloy additives.				
• Non-ferrous metal and ferro-alloy additives replacement value	t	ResponsibleSteel level 1 performance threshold value for the primary production of steel	NA	2.800
PROVISIONAL VALUES FOR INFORMATION ONLY:				
• Aluminium	t	worldsteel LCI 10	a	REDACTED
• Copper	t	worldsteel LCI 10	a	REDACTED
• Ferro-chromium	t	ISSF LCI 2022	a	7.184
• Ferro-manganese	t	worldsteel LCI 10	a	REDACTED
• Ferro-molybdenum	t	IMOA 2022	a	9.648
• Ferro-nickel	t	ISSF LCI 2022	a	10.411
• Ferro-silicon	t	worldsteel LCI 10	a	REDACTED
• Ferro-vanadium	t	worldsteel LCI 10	a	REDACTED
• Lead	t	worldsteel LCI 10	a	REDACTED
• Magnesium	t	worldsteel LCI 10	a	REDACTED
• Manganese	t	worldsteel LCI 10	a	REDACTED
• Molybdenum oxide	t	IMOA 2022	a	6.000
• Nickel metal	t	ISSF LCI 2022	a	16.295
• Nickel oxides	t	ISSF LCI 2022	a	24.335
• Nickel pig iron	t	worldsteel CO ₂ methodology	a	6.240
• Silico-manganese	t	worldsteel LCI 10	a	REDACTED
• Silicon metal	t	worldsteel LCI 10	a	REDACTED
• Tin metal	t	worldsteel LCI 10	a	REDACTED

Auxiliary materials				
• Argon	kNm ₃	worldsteel LCI 10	a	REDACTED
• Burnt dolomite	t	worldsteel LCI 10	a	REDACTED
• Burnt lime	t	worldsteel LCI 10	a	REDACTED
• Crude dolomite	dry t	worldsteel LCI 10	a	REDACTED
• Limestone	dry t	worldsteel LCI 10	a	REDACTED
• Nitrogen	kNm ₃	worldsteel CO ₂ methodology	a	0.124
• Oxygen	kNm ₃	worldsteel CO ₂ methodology	a	0.426
Solid fuels:				
• Materials of biological origin (e.g. charcoal, bio-coal, bio-coke)	dry t	NA	b	0.000
• Coal	dry t	worldsteel LCI 10	c	REDACTED
• Coke	dry t	CRU methodology for RS	c	1.022
• Post-consumer materials (e.g. used plastic, tyres, reclaimed wood)	t	NA	b	0.000
Liquid fuels:				
• Heavy oil	m ³	worldsteel CO ₂ methodology	a	0.331
• Kerosene	m ³	worldsteel CO ₂ methodology	a	0.296
• Light oil	m ³	worldsteel CO ₂ methodology	a	0.296
• Liquified petroleum gas (LPG)	t	worldsteel CO ₂ methodology	a	0.638
Gas fuels				
• Hydrogen	kg	worldsteel LCI 10	a	REDACTED
• Natural gas	kNm ₃	worldsteel CO ₂ methodology	c	1.064
Other input materials for steelmaking	The embodied GHG emissions of other input materials not listed must be included in the site's assessment of its upstream indirect (Scope 3) GHG emissions if its evaluation indicates that they the material is likely to contribute more than 5% to the total upstream (Scope 3) GHG emissions of steelmaking at a site. Where this is the case the materials must be assigned a default embodied GHG value using primary data or data from a publicly accessible and referenced source.			

Table A1. Provisional ResponsibleSteel default embodied GHG values. The current table of emission factors as published by ResponsibleSteel at www.responsiblesteel.org must be used for the determination of the crude steel GHG emissions intensity performance of the site.

Notes to table: basis for default

a: source data multiplied by default factor of 1.2

b: ResponsibleSteel assignation

c: source data multiplied by default factor of 1.6 to reflect known high variability

NOTE

The default embodied GHG values shown in Table A1 are provisional. The table will be published on the ResponsibleSteel website after the Standard has been approved. Once published, the current version on the ResponsibleSteel website must be used for certification assessments.

Principle 10 Greenhouse Gas Emissions and Climate Change refers to default embodied GHG value (tCO₂e / unit) for

various ferrous materials, non-ferrous materials, alloys and metallic additives, solid fuels, liquid fuels, gaseous fuels, and other inputs used in steel making as listed in Annex 11 of the standard. The default GHG values listed in Annex 11 Principle 10 refers to multiple sources including worldsteel.

The ResponsibleSteel Secretariat has been notified by worldsteel that due to licensing restrictions imposed by the data provider, the values referenced from worldsteel may not be disseminated. ResponsibleSteel is discussing with data providers in order to be able to share these values as necessary on an ongoing basis. In compliance with the request from worldsteel, ResponsibleSteel Standards and Assurance has redacted these values from the Standard. Where draft copies of the standard have been distributed, the figures sourced from worldsteel should not be used or disseminated as this would infringe the IP of the data owner. This does not have any impact on ongoing site audits.

The validity of the default embodied GHG values in the table is earmarked for review during the 12-month test phase, and emission factors will be updated as necessary, with the approval of the ResponsibleSteel CEO. Input materials that are identified as contributing more than 5% to the total upstream (Scope 3) GHG emissions of steelmaking at specific sites will be added to the list as required.

Guidance

(Table A1) ResponsibleSteel has applied a ‘burden of the doubt’ approach rather than a ‘benefit of the doubt’ approach to the use of default data when primary data are not available, in line with the recommendations of *ISO 21930:2017: Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services* that conservative assumptions should be applied to fill data gaps.

The default embodied GHG emission factors specified by ResponsibleSteel are therefore conservative. This may constitute a top decile figure, the top end of the error bars for a range of LCA data within a database, or a default additional percentage (e.g. +20%, +60%) on top of reported average LCA data for a category of input material. Suppliers with worse than average performance should therefore not generally benefit from claiming an average level of GHG emissions for the material they supply. Suppliers that have invested resources in measuring their actual GHG measurements should expect to benefit from this in the majority of situations.

Materials of biological origin

ResponsibleSteel requirements for the responsible sourcing of input materials, including materials of biological origin, are specified under ResponsibleSteel Principle 3: Responsible Sourcing of Input Materials.

Materials of biological origin that do not meet the requirements of Principle 3 are excluded from further consideration. Materials that meet the requirements of Principle 3 are assigned a default embodied GHG value of zero.

Post-consumer materials

ResponsibleSteel requirements for the responsible sourcing of input materials, including post-consumer materials, are specified under ResponsibleSteel Principle 3: Responsible Sourcing of Input Materials.

Post-consumer materials that do not meet the requirements of Principle 3 are excluded from further consideration. Post-consumer materials that meet the requirements of Principle 3 are assigned a default embodied GHG value of zero.

Steel (non-scrap)

If steel other than scrap is imported to the site as an input for production of crude steel at the site, and if primary data for its upstream emissions are not available, it is assigned a default upstream emission factor as for other ferrous input materials as listed in Table A1. If steel is imported to the site for further downstream processing, the upstream emissions associated with its production are not included in the determination of the crude steel GHG emissions intensity for the site.

References

In developing these draft requirements for responsible sourcing, we looked to other standards, guidance and sources for inspiration, data and information. For example:

- [ASI Chain of Custody \(CoC\) Standard V2 – Guidance](#)
- [Bettercoal Code 2.0](#)
- Bureau of International Recycling, World Steel Recycling in Figures 2016 – 2020
- [CRAFT Code](#)
- [EMAS EU Eco-Management and Audit Scheme](#)
- [Follow-up to the Indonesian-Swiss country-led initiative to improve the effectiveness of the Basel Convention. Framework for the environmentally sound management of hazardous wastes and other wastes](#)
- [From Worst to Good Practices in Secondary Metals Recovery, S. Karcher, S. Valdivia, M. Schlupe, Sustainable Recycling Industries \(SRI\), WRF, 2018](#)
- [FSC Principles and Criteria for Forest Stewardship](#) and [International Generic Indicators](#)
- [IRMA Chain of Custody Standard for Responsibly Mined Materials](#) (draft published for consultation)
- [IRMA Standard for Responsible Mining](#)
- [ISO 14001:2015 Environmental management systems — Requirements with guidance for use](#)
- [ISO 20400:2017 Sustainable procurement – Guidance](#)
- [ISO 22095:2020\(E\) Chain of custody - General terminology and models](#)
- [ISO 26000:2010 Guidance on social responsibility](#)
- [ISO 45001:2018 Occupational health and safety management systems — Requirements with guidance for use](#)
- [ISO/IWA 19](#) (Guidance principles for the sustainable management of secondary metals)
- [OECD Due Diligence Guidance for Responsible Business Conduct](#)
- [OECD-FAO Guidance for Responsible Agricultural Supply Chains](#)
- [R2](#) (Responsible Recycling practices for Use in Accredited Certifications Programs)
- [RIOS](#) (Recycling Industry Operating Standard)
- Sustainable Materials without the hot air, J. Allwood & J. Cullen, University of Cambridge, 2015
- [The Commodity Trading Sector. Guidance on Implementing the UN Guiding Principles on Business and Human Rights](#)
- [Tools for Environmentally Sound Management](#) (Bureau of International Recycling)
- [Tools for Occupational Health and Safety Management](#) (Bureau of International Recycling)
- [TSM Protocols & Frameworks](#)
- Worldsteel [scrap factsheet](#) and other information on scrap