This document contains all Guidance and Annexes to Version 2.0 of the ResponsibleSteel Standard that was approved in September 2022. The document is divided into Mandatory Guidance, which must be followed, and other Guidance. There are also Mandatory Annexes that must be applied by sites and auditors. The other Annexes are informative. Auditors can raise non-conformities where sites do not adhere to the Mandatory Guidance or Mandatory Annexes. Additional guidance and clarifications that has been developed after the Standard’s approval in September 2022 as well as corrected typographical errors have been highlighted below in blue so they can easily be identified.

Note that ResponsibleSteel also maintains a binding ‘Glossary’ that defines key terms and concepts of the Standard’s requirements. The Glossary must be used by sites and auditors to ensure everybody has the same understanding of important terms and concepts.

In case of questions, please write to assurance@responsiblesteel.org.

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Principle 1. Corporate Leadership

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.

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.

**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**

**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.

**Mandatory guidance:**

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.
2.1.3 - Following the ISO understanding, ResponsibleSteel does not require that the third party body issuing the ISO14001 certificate is accredited by a specific accreditation body. ISO understanding is on this topic is presented in their website and says: “Accreditation provides independent confirmation of competence. However, accreditation is not compulsory, and non-accreditation does not necessarily mean the certification body is not reputable”.

**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

**Mandatory guidance:**
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.
Guidance and Annexes (version 1.3)

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.

Mandatory 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.

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

**Mandatory guidance:**
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.

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

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 system

**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;
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- 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

Note: Principle 3 only applies if a steel site wants to become certified to the additional requirements that were approved in September 2022. Where this is the case, the Criteria apply to the respective input materials where highlighted in blue in the following table. Note also that Criteria 3.6 – 3.10 (for scrap) have the same structure as Criteria 3.1 – 3.5. This results in some overlap of individual requirements. The mandatory Annex 3, included in this document, shows which input materials must be considered under these requirements. Input materials cannot be ignored on the grounds that they are used in small quantities only.

<table>
<thead>
<tr>
<th>Input material</th>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
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<td>Coal</td>
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<td>Agricultural residues</td>
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<td>Waste materials</td>
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<td>Scrap</td>
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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.
## 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.

All programmes that have been recognised can be found [here](#).

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 internationally 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 C098: 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

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<table>
<thead>
<tr>
<th>Relevant Personnel</th>
<th>Codes of Conduct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes personnel working in procurement, strategy, sustainability and other departments and teams with links to input material sourcing.</td>
<td></td>
</tr>
</tbody>
</table>

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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.

<table>
<thead>
<tr>
<th>Optional Guidance:</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Iron</td>
<td>³ 80%</td>
<td>³ 90%</td>
<td>³ 95%</td>
<td>³ 98%</td>
</tr>
<tr>
<td>b) Coal</td>
<td>³ 80%</td>
<td>³ 90%</td>
<td>³ 95%</td>
<td>³ 98%</td>
</tr>
<tr>
<td>c) Other input materials (overall) (test phase)</td>
<td>³ 60%</td>
<td>³ 70%</td>
<td>³ 80%</td>
<td>³ 90%</td>
</tr>
</tbody>
</table>
**Guidance and Annexes (version 1.3)**

<table>
<thead>
<tr>
<th></th>
<th>Plantation wood (test phase) with FSC forest management and chain of custody certification, or equivalent</th>
<th>³ 90%</th>
<th>100%</th>
</tr>
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<tbody>
<tr>
<td>d)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>e)</td>
<td>Agricultural residues</td>
<td>³ 60%</td>
<td>³ 70%</td>
</tr>
<tr>
<td>f)</td>
<td>Waste materials</td>
<td>³ 60%</td>
<td>³ 70%</td>
</tr>
</tbody>
</table>

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. The same logic applies to Levels 2, 3 and 4. If a certain input material listed in Annex 3 under ‘other input materials’ is not used by the site, it does not contribute to the calculation.
- 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 ResponsibleSteel Standard Version 2.0 33 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. Until recently, plantations on areas that have been converted from natural forests after 1994 were not eligible for FSC certification. Following a public consultation, FSC decided that land that has been converted between 1994 and 2020 will now be eligible for FSC certification after a remedy process for social and environmental harms. Land that has been converted after 2020 will not be eligible for FSC certification. More information can be found on the FSC website.

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 screensharing. 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
Guidance and Annexes (version 1.3)

- 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.

 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’.
Guidance and Annexes (version 1.3)

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.

Mandatory Guidance:

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suppliers are committed to a recognised programme</td>
<td>Minimum ESG performance achieved under a recognised programme</td>
<td>IRMA 50, or equivalent</td>
<td>IRMA 75, or equivalent</td>
</tr>
<tr>
<td>a) Iron</td>
<td>³ 60%</td>
<td>³ 80%</td>
<td>³ 80%</td>
<td>³ 80%</td>
</tr>
<tr>
<td>b) Coal</td>
<td>³ 60%</td>
<td>³ 80%</td>
<td>³ 80%</td>
<td>³ 80%</td>
</tr>
<tr>
<td>c) Other input materials (overall) (test phase)</td>
<td>³ 40%</td>
<td>³ 60%</td>
<td>³ 60%</td>
<td>³ 60%</td>
</tr>
<tr>
<td>d) Plantation wood (test phase) with FSC forest management and chain of custody certification, or equivalent</td>
<td>³ 90%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

All programmes that have been recognised and the associated minimum ESG performance can be found here.
Share of ‘CoC Input Material’: This is calculated using the following simple formula. The result is expressed in percent:

- \( \frac{\text{Total tonnes of ‘CoC Input Material’} \times 100}{\text{Total tonnes of input material}} \)

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

- To achieve ‘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 steel site, 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. If a certain input material listed in Annex 3 under ‘other input materials’ is not used by the site, it does not contribute to the calculation;
- A steel site is awarded 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 1:** Mine sites must not have undergone an audit or passed an audit for Level 1. They must be committed to one of the recognised programmes, e.g. through public communication on time-bound plans to undergo an audit, through announcement of an audit or a letter to the steel company that confirms their intent to undergo an audit.

**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.

**Note that there might be serious ESG issues in supply chains at the different Levels. However, in line with the concept of risk management, steel sites are asked to identify, assess and address ESG issues in supply chains under the other responsible sourcing criteria and they are required to publicly report on identified issues and how they seek to address them.**

**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. Audit reports from recognised programmes should be from the most recent verification cycle. They must have been produced by certification bodies, assessors or verifiers that are external to the suppliers and that are approved for the respective programme. The reports cannot be self-assessment reports. Where audit reports are more than five years old, a follow-up audit should be requested to ensure that the provided information is up to date.

Criterion 3.5: Report publicly on responsible sourcing

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

Guidance:
Guidance and Annexes (version 1.3)

Grievance mechanism: As required by 8.2.1. in the existing ResponsibleSteel Standard, 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

Note: Criteria 3.6 – 3.10 apply to scrap for those sites that seek ‘Certified Steel’ certification.

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: 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.

Guidance:
Recognised input material programmes: Note that there is currently no recognised programme for scrap, but for input material from mines and from forestry, see the guidance to Criterion 3.1 for more information.

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 internationally 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 C098: 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

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.

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<tr>
<th>Guidance:</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries of scrap origin</td>
<td>≥ 40%</td>
<td>≥ 60%</td>
<td>≥ 70%</td>
<td>≥ 80%</td>
</tr>
</tbody>
</table>

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 short sea 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;
Guidance and Annexes (version 1.3)

- 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 screensharing. 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.
Guidance and Annexes (version 1.3)

**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, multistakeholder initiatives, international standards development committees, government or NGO-led projects focused on specific regions or locations.
Guidance and Annexes (version 1.3)

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 of the Standard

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.

Mandatory Guidance:

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites of direct scrap suppliers that have been subject to a third-party audit</td>
<td>-</td>
<td>³ 30%</td>
<td>³ 50%</td>
<td>³ 60%</td>
</tr>
<tr>
<td>Sites of small scrap suppliers that have self-assessed against the ‘Principles for the Responsible Management of Scrap’</td>
<td>-</td>
<td>³ 30%</td>
<td>³ 50%</td>
<td>³ 60%</td>
</tr>
<tr>
<td>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</td>
<td>-</td>
<td>-</td>
<td>³ 30%</td>
<td>³ 50%</td>
</tr>
<tr>
<td>Sites of small scrap suppliers that can demonstrate that they meet the ‘Principles for the Responsible Management of Scrap’</td>
<td>-</td>
<td>-</td>
<td>³ 30%</td>
<td>³ 50%</td>
</tr>
</tbody>
</table>

Guidance:

Scrap sites must not have passed the audit successfully for Level 2, but must have simply undergone the audit. If issues are identified, these would inform the steel site’s ESG risk assessment and actions to address those issues.
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 regarding the responsible sourcing of scrap is regularly reported to 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.

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

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.

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

Criterion 5.1: Health and Safety (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.

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

**Mandatory 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, pneumonoconiosis, 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.

**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 4.

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.
Guidance and Annexes (version 1.3)

**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 workplace**

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

**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.

**Interpretation to 5.5.3 (mandatory)**: Housing provided for workers (note the “workers” definition in the mandatory Glossary) must adhere to the ResponsibleSteel Standard requirement 5.5.3, regardless of its location or provider. Auditors must incorporate inspections of worker accommodations within the scope of the audits.

**Non-mandatory guidance**: Where work arrangements are bound to housing, this may be an indication of forced or compulsory labour, for example where workers are forced to take up certain housing. In such cases, specific attention should be paid to Criterion 6.2. Where workers have to pay unreasonably high fees for housing, requirement 6.8.6. might also be relevant, which states: Where accommodation is provided by the site or on behalf of the site, it is offered at no more than the appropriate market rate.

**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

**Guidance**: 

"ResponsibleSteel Standard Version 2.0: Guidance and Annexes (version 1.3)"
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.

Criterion 5.7: Emergency preparedness and response
Guidance and Annexes (version 1.3)

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

### 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

#### 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

**Mandatory 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.
Guidance and Annexes (version 1.3)

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

Mandatory 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 relationship are based on the principle of equal opportunity, actively prevent all forms of discrimination and inclusion and promote workforce diversity

Mandatory 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 valuate 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)

Guidance:
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

Mandatory 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.

The intent of the criterion 6.4 is that workers have ways to collectively engage with the employer in meaningful discussions on the conditions of work and there can be different mechanism to achieve this. So, the ResponsibleSteel Standard does not ask that a site has to have worker’s union in place to comply with requirements under the criterion 6.4 of ResponsibleSteel Standard. Instead, the RS Standard lists several issues that the site needs to establish in order to comply with the requirements under criterion 6.4.

Criterion 6.5: Disciplinary Practices

ResponsibleSteel Standard Version 2.0: Guidance and Annexes (version 1.3)
Guidance and Annexes (version 1.3)

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 practice.

**Mandatory 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 workers 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.

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

**Guidance:**
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 IPIECA 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 regard to wages, working hours and other employment condition.

No guidance

**Criterion 6.8: Remuneration**
Guidance and Annexes (version 1.3)

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

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<tr>
<th>Mandatory guidance:</th>
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<tr>
<td>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.</td>
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<th>Guidance:</th>
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<tr>
<td>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.</td>
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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.

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

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<td>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.</td>
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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.

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<th>Interpretation on 6.9.1.b):</th>
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<td>In some jurisdictions and under specific circumstances, the law might permit to require overtime from workers, for example in crisis situations.</td>
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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 4.9.1.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 workers well-being through offers to reconcile work and private life, support the health of workers and advance their qualifications.

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;
**Principle 7: Human Rights**

**Criterion 7.1: Human rights due diligence**

The sites act diligently to avoid infringing on the rights of others and to address adverse human rights impacts

**Mandatory 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 practices**

The site does not support public or private security providers engaged in illegal practices and works to ensure that security providers respect human rights
Guidance and Annexes (version 1.3)

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 risk for workers and communities in conflict-affected or high-risk areas

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

Criterion 8.1: Stakeholder engagement

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

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 impact

Mandatory Guidance:
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.

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.

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.
Criterion 8.3: Communication to the public

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

**Mandatory 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.

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

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.
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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

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

Mandatory Guidance:
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.
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.

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 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 sites considers activities that might affect the rights of indigenous people, the site obtains the peoples’ free and informed consent prior to undertaking such activities

Mandatory 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:
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- 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)

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.

Guidance:

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.

Criterion 9.3: Cultural heritage
The site respects and safeguard cultural heritage within its area of influence

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

**Mandatory Guidance:**
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.

**Mandatory 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 7.4 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.

**Guidance:**
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 12 covers site Closure and Decommissioning, which may be related to economic displacement covered here under Principle 7.
Principle 10. Climate Change and Greenhouse Gas Emissions

**Note:** 10.4, 10.6 and 10.7.2 and 10.7.3 contain the additional GHG requirements that were approved in September 2022.

**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.

**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.

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 nonconformity 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 longterm 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.
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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)

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:

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.

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.

Mandatory Guidance:
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 Criterion 10.4 as soon as possible (10.3.1)
10.3.1 refers to the direct (Scope 1) GHG emissions of the site (see glossary)
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)

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.

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.

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.

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.

Note: 10.4 contains additional GHG requirements that were approved in September 2022.

Guidance:
Guidance and Annexes (version 1.3)

Conformity with the requirements of Criterion 10.4 is mandatory for all sites that wish to become certified to the additional requirements that were approved in September 2022. 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:

<table>
<thead>
<tr>
<th>species</th>
<th>GWP-20</th>
<th>GWP-100</th>
</tr>
</thead>
<tbody>
<tr>
<td>carbon dioxide (CO2)</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>methane (CH4)</td>
<td>81.2</td>
<td>27.9</td>
</tr>
<tr>
<td>nitrous oxide (N2O)</td>
<td>273</td>
<td>273</td>
</tr>
</tbody>
</table>

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.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) 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.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.) 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.

(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 CO2e/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:

- 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
2. Fuel- and energy-related activities (not included in direct (Scope 1) or energy indirect (Scope 2) GHG emissions)
3. 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:

- 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.

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.
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(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) 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 on 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) 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. 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:

- 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.
- The amount of power used by the site upstream of crude steel production (B) is deducted from the total amount of power generated from the utilisation of process gases (A).
- The site is allocated a GHG emissions credit equal to (A minus B) multiplied by the most recent global grid intensity (CO₂e/MWh) as determined by the IEA.

(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.

(10.4.7.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 reduction targets and planning**

The is a medium-term GHG emissions target and plan for the site that is aligned with the achievement of the corporate owner’s corporate level GHG emissions target(s)

**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 defined 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.

The medium-term plan should cover activities planned for the following 5 to 15 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, carbon offsets, 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 include 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).

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.

“Imported electricity” means imported from outside the site to the site. 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.
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.

Where offsets are used the offsets must be consistent with a specified, recognised international or national standard or regulation and must be publicly reported (see 10.4.1). The implication is that sites would have broad freedom to select their own approach to reducing net GHG emissions, and deciding what level of verification might be required to support their approach, so long as the approach is consistent with a recognised standard. Examples of recognised standards include:

- ART-TREES Standard, operational from 2020 under the emergent Forest Finance Facility;
- The National Carbon Offset Standard in Australia

Low-carbon energy procurement must be consistent with a specified, recognised international or national standard or regulation and must be publicly reported (see 10.3.1). Examples of recognised standards include:

- The quality criteria set in the GHG Protocol Scope 2 guidance;
- The RE100 credible claims guidance.

The medium-term plan should cover activities planned for the following 5 to 15 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.

10.5.3: The content of the site’s plans are 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.

Note: 10.6 contains additional GHG requirements that were approved in September 2022.

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.

(10.6.1. and 10.6.2.) The site should specify the actual numbers in the table above so that they can reviewed during the audit.

(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.

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.

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) 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
- 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
Guidance and Annexes (version 1.3)

- 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

(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.

Note: 10.7.2 and 10.7.3 contain additional GHG requirements that were approved in September 2022.

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.b.ii) To submit that the determination has been prepared in conformity with the requirements specified in Criterion 10.4, a site must have been audited against and achieved certification to the additional requirements.

(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:
Guidance and Annexes (version 1.3)

i. 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

ii. Each site within the group must be successfully audited against the 'Certified Site' requirements and must itself achieve the additional responsible sourcing requirements and the additional GHG emissions requirements, both at least at level 1 where levels are specified.

(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.

(10.7.2.) The site should specify the actual numbers in the table above so that they can reviewed during the audit.

(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

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

Mandatory Guidance:
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.

Potential opportunities to prevent or reduce noise and vibration: Sites are expected to identify opportunities and define targets beyond regulatory requirements.

Guidance:
Baseline (11.1.2): This refers to a baseline under business as usual circumstances.

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 9.1 in relation to vibration is met.

**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.

**Mandatory 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.

**Guidance:**
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.

Mandatory 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.
Mandatory 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.

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.

Guidance:
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.

Principle 12: Water Stewardship

Criterion 12.1: Water-related context

The site understands the current and future water-related needs and dynamics in its area of influence

Guidance:
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

**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

**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

No guidance

**Principle 13: Biodiversity**

**Criterion 13.1: Biodiversity commitment and management**
### Mandatory 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 11.1.2.

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:

A comprehensive collection of terms and definitions related to biodiversity can be found on [https://biodiversity-a-z.org/](https://biodiversity-a-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.

'Guidance for Assessing and Managing Biodiversity Impacts and Risks' has been developed by the Inter-American Development Bank. While is 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:
Guidance and Annexes (version 1.3)

- 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 others 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. Note that this Annex applies to ‘Certified Site’ certification. For the input materials to be considered for the additional responsible sourcing requirements that were approved in September 2022, see Annex 3.

- 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 for Principle 3): 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
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- Silicon
- Tin
- Titanium
- Tungsten
- Vanadium
- Zinc

- **Pre-consumer and post-consumer iron and steel 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:
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:

- **Scrap from metallics other than iron and steel**
- **Home scrap**: *Iron and steel 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**: *Iron and steel 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](https://www.iea.org/sdscenarios), 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](https://www.netzero-steels.org/) 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](https://www.assentco.com);
- [Ecovadis](https://www.ecovadis.com);
- [ELEVATE Responsible Sourcing Assessment (ERSA)](https://elevatehumanvesources.com) developed and applied by ELEVATE with a focus on social issues;
- [Risk Readiness Assessment (RRA)](https://www.responsiblemineralsinitiative.org) 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?
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Risk assessment matrix:

<table>
<thead>
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<th>Likelihood</th>
<th>Definite</th>
<th>High</th>
<th>High</th>
<th>High</th>
<th>High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Occasional</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Seldom</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Unlikely</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Insignificant</td>
<td>Marginal</td>
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<td></td>
<td>Severity</td>
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</tr>
</tbody>
</table>

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 for Principle 3): 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
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.
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<table>
<thead>
<tr>
<th>Country</th>
<th>Shipbreaking activity</th>
<th>Processing activity</th>
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<th>Money laundering</th>
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Guidance and Annexes (version 1.0)

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Legend

X moderate concern  X serious concern  X critical concern

In addition, for country of origin-related risk assessments, the following indices and thresholds can be used:

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<tr>
<th>Scrap country of origin with:</th>
<th>Low (CPI score &gt; 50)</th>
<th>Medium (EPI score 60 - 50)</th>
<th>High (HFI score &lt; 6.5)</th>
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<td>EPI score 7 - 6.5</td>
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<tr>
<td>WGI aggregate score &gt; 60</td>
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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

| Responsible sourcing is a journey | • 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 |
| It is complex                   | • 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 |
| One of many challenges          | • The 12 Principles for ‘Certified Site’ with their 370 requirements must be met by steel sites as a prerequisite to ‘Certified Steel’ |
| Keep it manageable              | • 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 |
| Make it relevant                | • 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 |
| Be transparent and truthful     | • 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 (mandatory for 10.3.3): 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 (mandatory for 10.4.5): Provisional ResponsibleSteel default embodied GHG values

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<th>Ferrous containing materials</th>
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<th>Basis for default (see notes)</th>
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**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 | Unit | ResponsibleSteel level 1 performance threshold value for the primary production of steel | NA | 2.800 |

**PROVISIONAL VALUES FOR INFORMATION ONLY:**

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<th>Metal</th>
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### Guidance and Annexes (version 1.0)

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<td>IMOA 2022</td>
<td></td>
<td>6.000</td>
</tr>
<tr>
<td>Nickel metal</td>
<td>t</td>
<td>ISSF LCI 2022</td>
<td></td>
<td>16.295</td>
</tr>
<tr>
<td>Nickel oxides</td>
<td>t</td>
<td>ISSF LCI 2022</td>
<td></td>
<td>24.335</td>
</tr>
<tr>
<td>Nickel pig iron</td>
<td>t</td>
<td>worldsteel CO₂ methodology</td>
<td></td>
<td>6.240</td>
</tr>
<tr>
<td>Silico-manganese</td>
<td>t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>7.084</td>
</tr>
<tr>
<td>Silicon metal</td>
<td>t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>5.504</td>
</tr>
<tr>
<td>Tin metal</td>
<td>t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>6.826</td>
</tr>
</tbody>
</table>

#### Auxiliary materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Unit</th>
<th>Source</th>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argon</td>
<td>kNm³</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>0.332</td>
</tr>
<tr>
<td>Burnt dolomite</td>
<td>t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>1.456</td>
</tr>
<tr>
<td>Burnt lime</td>
<td>t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>1.437</td>
</tr>
<tr>
<td>Crude dolomite</td>
<td>dry t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>0.006</td>
</tr>
<tr>
<td>Limestone</td>
<td>dry t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>0.006</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>kNm³</td>
<td>worldsteel CO₂ methodology</td>
<td></td>
<td>0.124</td>
</tr>
<tr>
<td>Oxygen</td>
<td>kNm³</td>
<td>worldsteel CO₂ methodology</td>
<td></td>
<td>0.426</td>
</tr>
</tbody>
</table>

#### Solid fuels:

<table>
<thead>
<tr>
<th>Material</th>
<th>Unit</th>
<th>Source</th>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials of biological origin (e.g. charcoal, bio-coal, bio-coke)</td>
<td>dry t</td>
<td>NA</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>Coal</td>
<td>dry t</td>
<td>worldsteel LCI 10</td>
<td></td>
<td>0.470</td>
</tr>
<tr>
<td>Coke</td>
<td>dry t</td>
<td>CRU methodology for RS</td>
<td></td>
<td>1.022</td>
</tr>
</tbody>
</table>
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| Post-consumer materials (e.g. used plastic, tyres, reclaimed wood) | t  | NA | b  | 0.000 |
| Liquid fuels: | | | | |
| • Heavy oil | m³ | worldsteel CO₂ methodology | a | 0.331 |
| • Kerosene | m³ | worldsteel CO₂ methodology | a | 0.296 |
| • Light oil | m³ | worldsteel CO₂ methodology | a | 0.296 |
| • Liquified petroleum gas (LPG) | t | worldsteel CO₂ methodology | a | 0.638 |
| Gas fuels | | | | |
| • Hydrogen | kg | worldsteel LCI 10 | a | 12.971 |
| • Natural gas | kNm³ | worldsteel CO₂ methodology | c | 1.064 |

### Table A1. Provisional ResponsibleSteel default embodied GHG values.

The current table of emission factors as published by ResponsibleSteel at [www.responsiblesteel.org](http://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
- 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’
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- **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