ResponsibleSteel GHG Requirements: High Alloy, Stainless Steels
27th January 2022
ResponsibleSteel™ is committed to complying with all relevant antitrust and competition laws and regulations. Failure to abide by these laws and regulations can potentially have extremely serious consequences for ResponsibleSteel™ and its members, including heavy fines and, in some jurisdictions, imprisonment for individuals. ResponsibleSteel™ has therefore adopted an Antitrust Policy, compliance with which is a condition of ResponsibleSteel™ membership and participation. You are asked to have due regard for this Policy today and indeed in respect of all other ResponsibleSteel™ activities.

High Alloy, Stainless Steels:

- Recap of discussions from last year
- Stainless/high alloy discussions within context of general GHG requirements
- Proposals for next steps
Recap of discussions from last year: wider group

- We have agreement in the wider group on the approach to primary/secondary metal, subject to fine-tuning:
  - Detailed GHG accounting rules, including treatment of input materials (C8-4)
  - Finalisation of basis for levels 2 and 3 (how much lower than level 1?)
  - Quantification of thresholds
  - Consideration of a 4-level option

Approach to GHG emissions intensity performance levels:

- 3 ResponsibleSteel GHG emissions intensity performance levels (1 - 3, as described in the figure)
- Thresholds to be reviewed every 5 years, with the expectation that they will be reduced over time to support progress towards ‘near zero’ performance being achieved in 2050
Need for a high alloy/ stainless subgroup

• Recognition that the performance thresholds that are applicable to low alloy steels will not be appropriate to high alloy steels:
  • Primary, non-ferrous input materials have higher GHG emissions associated with extraction and processing, so total GHG emissions higher when compared to carbon steels
  • Multiple input metals: not just iron
    • High variability in the ‘recipes’ for high alloy steels – making it hard to define common thresholds that will be appropriate for all the different types of high alloy steel
• Other issues that would prevent producers of high alloy/ stainless steels participating in the ResponsibleSteel programme?

• Proposed objectives of the subgroup, at meeting 1:
  • Recommended definition for ‘stainless/high alloy’ steel
  • Recommend application of crude steel GHG threshold levels to stainless/high alloy steels
  • Recommend guidance on GHG accounting rules/ format/ verification in relation to input materials (from earlier call with Mark and Claude from Nickel Institute)
Recap of discussions from last year: high alloy/ stainless

Initial proposal:
- We need to set thresholds that will be higher than those for carbon steels
- We can determine site-specific thresholds that are based on a benchmark level of performance that takes account of the particular mix of metals being produced at the site

Challenges:
- Multiple types of inputs for specific metals (e.g. different types of inputs for nickel; molybdenum oxide/ ferromolybdenum)
- How to benchmark scope 2 emissions
- Concerns raised about the approach to scrap – is the general approach agreed for carbon steels (variable threshold depending on % scrap input) also applicable to high alloy/ stainless steels?
- Concerns raised about different processing routes for nickel, with significantly different GHG profiles
- Challenges of getting data on upstream emissions for different materials
- What is the definition of a ‘high alloy’ or ‘stainless’ steel, which would be assessed under different performance level specifications?
- Anti-trust concerns raised
Progress and next steps

Progress:
• A technical definition of ‘stainless steel’ is relatively straightforward, and can be agreed
• A definition of ‘high alloy’ steel is more challenging – but proposed that if this cannot be resolved, then further work might continue after the rest of the standard has been finalised.

We need to resolve:
• Is the general approach agreed for carbon steels (variable threshold depending on % scrap input) also applicable to high alloy/ stainless steels?
  • If not, what is the agreed alternative?
  • In any case, how can we resolve the challenges related to multiple metal inputs, and variations in the proportions of different metals processed at different steelmaking sites?