



**CRITICAL REVIEW STATEMENT
ACCORDING TO ISO 14040 & 14044**

OF

**LCA STUDY OF TATA STEEL IN EUROPE'S
INTERMEDIATE COIL PRODUCTS**

19/04/2022

Prepared for the LCA Commissioner:

Tata Steel in Europe

LCA conducted by:

Tata Steel Group Environment

Prepared by:

Individual Expert Reviewer:

Chris Foster

EuGeos Limited

Document ref:

TSE Coil Products CR

The Reviewer's conclusions in this statement apply to the full report from the study: "Life Cycle Assessment Study of Tata Steel in Europe's Intermediate Coil Products" version 2 dated March 2022 and no other report, extract or publication which may eventually be produced. The Reviewer cannot be held responsible for the use of this work by any third party.

The Reviewer's conclusions are based on current state of the art and the information received from the practitioner. The conclusions expressed are specific to the context and content of this study and shall not be generalised further.

1 INTRODUCTION

Tata Steel Group Environment Europe conducted the LCA study on Tata Steel in Europe's Intermediate Coil Products. The study was critically reviewed by Chris Foster, EuGeos, UK, acting as a single expert.

Mr. Foster is independent of any party with a commercial interest in the study.

2 GOAL AND SCOPE

As specified in ISO 14044¹ section 6.1, the goal and scope of the review were to ensure that:

- the methods used to carry out the LCA are consistent with this International Standard,
- the methods used to carry out the LCA are scientifically and technically valid,
- the data used are appropriate and reasonable in relation to the goal of the study,
- the interpretations reflect the limitations identified and the goal of the study
- and the study report is transparent and consistent.

3 CRITICAL REVIEW PROCESS

The review process entailed:

- preliminary discussions concerning the goal and scope of the study
- review of a draft report of the project, resulting in recommendations for improvement
- review of the LCA model, including sample checks on the integration of Tata Steel data in the worldsteel model
- review of the final study report in which the practitioner had responded fully to comments raised about the draft report

The review assessed:

- the transparency and consistency with the study's goal and scope of inventory data as described in the project report
- the impact assessment methods applied, for appropriateness and conformity with ISO 14044
- the findings of the study for appropriateness, and conformity with the goal and scope
- the draft and final reports for consistency with reporting guidelines in the ISO standard
- quality aspects of material secondary data used in the LCA

Following that review, this CR Statement is delivered to the LCA Commissioner, Tata Steel in Europe.

¹ ISO 14044:2006: Environmental management - Life cycle assessment - Requirements and guidelines

4 REVIEWER'S FINDINGS

4.1 METHODOLOGICAL COMPLIANCE WITH ISO 14040 & 14044

The study has been performed according to the general structure of LCA required in ISO 14040² and also to the requirements contained in ISO 14044. The LCA model draws on the 2020 worldsteel LCI data release; the methodology used in that is set out in the worldsteel report "Life cycle inventory methodology report for steel products" published in 2017, which was subject to a separate critical review. This LCA is consistent with that prior work.

4.2 SCIENTIFIC AND TECHNICAL VALIDITY OF THE METHODS USED

The methods used are scientifically and technically valid. Assumptions and methodological choices are adequately documented.

The impact categories considered in this study and the characterisation models chosen are common in LCA; they reflect the Commissioner's priorities including alignment with the methods used by worldsteel, and the quality and coverage of the data used. The characterisation models applied are not the most recent, therefore it is recommended that more recent models are considered for future work.

4.3 DATA APPROPRIATENESS

Primary data used in the study are credible, comprehensive and comparable in scope. A complete audit of primary data did not form part of the critical review; these data were reviewed when integrated into the worldsteel LCA.

Secondary data are from reliable sources. Steps have been taken to ensure that geographically-relevant data are used for key processes. Where proxy data have been used, this is reported.

Data quality has been assessed by the practitioner and the results of this assessment included in the study report. No over-interpretation of the data has been identified.

4.4 INTERPRETATION ASSESSMENT

The interpretation of the results is transparent and reasonable, taking account of the limitations and the study goal. The conclusions and recommendations follow clearly from the interpretation; the guidance to users (Section 7.3 of the study report) represents an important and integral part of these.

4.5 TRANSPARENCY AND CONSISTENCY OF THE LCA REPORT

The LCA report follows the specification in ISO 14040 and 14044; it is consistent and clearly structured.

5 REVIEW CONCLUSIONS

The Reviewer concludes that the study has been carried out in compliance with ISO standards 14040 and 14044.

DATED: 6 April 2022

SIGNED:



C.J.Foster MA(Oxon), MPhil

² ISO 14040:2006: Environmental management - Life cycle assessment - Principles and framework



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