



Independent Assurance Statement

Statement No.:
C599201-2022-AG-TWN-DNV

Issued date:
05 May, 2023

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This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2022) of

CHINA STEEL CORPORATION

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by CHINA STEEL CORPORATION ('the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2022) (hereafter the "Inventory Report") in Taiwan, ROC with respect to the sites listed in Appendix A.

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy and indirect GHG emissions associated with the use of products from the Organization. The further descriptions for the Reporting Boundary listed in Appendix B.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019

Verification Statement

It is DNV's opinion that the Inventory Report (2022), which was published on April, 2023 (Ver. 3.0), is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

- For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2022) were verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was verified and tested using agreed-upon procedures, AUP, defined in Inventory Report.

Also, the GHG information as stated in Appendix B and C has been verified during the process.

Arbin Chang
GHG Verifier

Place and date:
Taipei, 05 May, 2023

For the issuing office:
DNV Business Assurance Co., Ltd.
29Fl., No. 293, Sec. 2, Wenhua Rd.,
Banqiao District, New Taipei City
220, Taiwan

Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid. This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.

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DNV ZNATW-OP-F50, Rev.10, 2023-2

Supplement to Statement

Process and Methodology

The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

Quantification of Greenhouse Gas Emission

The Inventory Report covering the period 1st January 2022 to 31st December 2022, it is DNV's opinion that the Inventory Report results in quantification of GHG emissions that are real, transparent and measurable.

Organizational Boundary of Verification

Financial Management Control Operational Management Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Quantification of GHG emissions and removals in Direct and Indirect Emission Source:

Category	Direct and indirect GHG emissions categorization*	Emissions and removals verified, tonnes CO ₂ -e
1	Direct emissions and removals**	18,248,901.1790
2	Indirect GHG emissions from imported energy	1,412,524.0931
3	Indirect GHG emissions from transportation	482,809.9869
4	Indirect GHG emissions from products used by the Organization	1,123,332.4671
5	Indirect GHG emissions associated with the use of products from the Organization	-
6	indirect GHG emissions from other sources	-
<i>Total greenhouse gas emissions and removals verified in this verification</i>		21,267,567.7261

*: Unless other indicated, the Indirect Emissions was calculated based on 2021 electricity emission factor of 0.509 kg CO₂-e/kwh, which was announced by Bureau of Energy, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2023) has been choose and correctly referred by the Organization.

** :the details subcategory of each category could be refer later in the Report.

Verification Opinion

unmodified
 modified
 adverse

APPENDIX A

The greenhouse gas statements of CHINA STEEL CORPORATION Greenhouse Gas Inventory Management Report (2022) with respect to the following sites:

Site	Address
HSIAO KANG PLANT 中鋼公司小港廠區	No. 1, Chung Kang Rd., Hsiao Kang, Kaohsiung, Taiwan, R.O.C. 高雄市小港區中鋼路 1 號
NO.3 COLD ROLLING MILL 第三冷軋廠	No. 8-2, Gangcheng St., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區鋼成街 8-2 號
NO.2 BILLET CONDITION MILL 第二小鋼胚表面處理工場	No. 56, Yanhai 3rd Rd., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區沿海三路 56 號
COAL ASH MIXING PLANT 煤灰礦泥拌合料場	No.5, Guangyang St., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區光陽街 5 號
YONG GUANG WAREHOUSE 永光倉庫	No.1, Yongguang St., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區永光街 1 號
LIEN HUA WAREHOUSE 聯華倉庫	No.26, Taiji Rd., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區台機路 26 號
HUA LIEN STONE PLANT 花蓮石料場	No. 4-1, Huadong, Hualien City, Hualien County, Taiwan (R.O.C.) 花蓮市華東路 4-1 號
CSC STEEL BUILDING 中鋼集團總部大樓	No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市前鎮區成功二路 88 號
LIN HAI PLANT 臨海廠(倉庫)	No.38, Daye S. Rd., Siaogang Dist., Kaohsiung City, Taiwan (R.O.C.) 高雄市小港區大業南路 38 號
TAIPEI LIAISON OFFICE 台北聯絡處	Rm. A, 28F., No.7, Sec. 5, Xinyi Rd., Xinyi Dist., Taipei City, Taiwan (R.O.C.) 台北市信義區信義路五段 7 號 28 樓 A 室
OSAKA OFFICE 大阪代表處	1F, Osaka U2 Bldg., 4-7 Uchihonmachi 2-Chome, Chuoku, Osaka 540-0026 Japan 大阪府中央區內本町二丁目 4-7 大阪 U2 大樓 1F

APPENDIX B

The Reporting Boundary of CHINA STEEL CORPORATION Greenhouse Gas Inventory Management Report (2022)

Category	Reporting Boundary
Direct GHG emissions and removals	- Mainly from iron-making, steel-making and steel rolling process emissions, emissions from co-production of steam and electricity in power facility plants. mobile source emissions from transporting raw materials, semi-finished products, etc and other GHG sources or sinks inside organizational boundaries and that are owned or controlled by the organization
Indirect GHG emissions from imported energy	-The amount of greenhouse gas emissions produced by the imported electricity including all sites
Indirect GHG emissions from transportation	-Upstream transportation and distribution-Outsourced transportation of raw materials -Downstream transportation and distribution -Not significant, Not reported -Business travel -Employee commuting-Not significant, Not reported -Customer and visitor transportation- Not significant, Not reported
Indirect GHG emissions from products used by the Organization	-Product purchased-the GHG emitted related to the production of purchased energy (electricity and oil), but not included in Categories 1 and 2. -Disposal of solid and liquid waste-the GHG emitted related to waste disposal.
Indirect GHG emissions associated with the use of products from the Organization	Not significant, Not reported
indirect GHG emissions from other sources	Not significant, Not reported

The scope of other indirect emissions (other than Imported Energy with specified/limited list of sources) was defined by *CHINA STEEL CORPORATION*'s own pre-determined criteria for significance of indirect emissions, considering the intended use of the GHG inventory.

APPENDIX C

For direct emissions and removals, quantified separately for each GHG as below, in tonnes of CO₂-e:

CO₂	CH₄	N₂O	HFCs	PFCs	SF₆	NF₃	TOTAL
18241992.137	1320.086	580.889	4978.907	-	29.160	-	18248901.1790
99.962%	0.007%	0.003%	0.027%	0.000%	0.000%	0.000%	100%

