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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46905-2025

**Grade and evaluation methods of carbon dioxide emission
intensity for terminals**

码头二氧化碳排放强度等级及评定方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Transport of the People's Republic of China. This document is under the jurisdiction of the National Port Standardization Technical Committee (SAC/TC530). This document was drafted by: Water Transport Research Institute of the Ministry of Transport, Hebei Port Group Co., Ltd., Tianjin Port Co., Ltd., and Shandong... Qingdao Port Group Co., Ltd., Tangshan Port Group Co., Ltd., Zhejiang Jiaying Port Co., Ltd., and Jiangsu Jiangyin Port Group Co., Ltd. Group Co., Ltd., Ningbo Beilun Yonghe Container Terminal Co., Ltd., Ningbo Daxie Container Terminal Co., Ltd., Wuhan University of Technology, Planning and Research Institute of the Ministry of Transport, Tangshan Port Industry Group Co., Ltd., China Ports Association, Shandong Port Bohai Bay Port Group Co., Ltd. Shandong Port Rizhao Port Group Co., Ltd., and the Science and Technology Promotion Center of the Ministry of Water Resources. The main drafters of this document are. Li Haibo, Yang Wensheng, Sun Xiaowei, Wu Qiang, Wu Yuzhen, Cheng Xuan, Ma Xiping, Li Jianzhen, Cui Yan, and Zhu Boyong. Li Hua, Tian Xinhua, Zhang Yan, Li Wen, Pang Bo, Zhang Xuan, Zhang Lu, Hua Jiang, Zheng Chun, Liu Da, Zhong Ming, Liu Changjian, Liu Caixia, Ren Chuan, Li Ruiyu Yu Chuanhe, Ge Xifeng, Dai Tianjiao, Wang Zhengfu, Gan Wenhui, Li Guihao, Han Desheng, Gu Yin, Cao Fangliang, Li Zeng, Liu Gang, Fan Xudong, Yi Jiyuan Dong Changjuan, Sun Chao, and Ji Changrui. Port CO

1 Scope

GB/T 46905-2025 is the Chinese national standard covering the carbon intensity of a port

terminal - the emissions per container or per tonne handled, from the cranes and yard equipment, the shore power supplied to ships and the terminal's own buildings, and the grades a terminal is placed in. First edition, under the Ministry of Transport. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the Ministry of Transport. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the assessment scope, calculation method, classification method, limits, and assessment method for the carbon dioxide emission intensity levels of wharves. This document applies to the assessment of carbon dioxide emission intensity levels for production operations at specialized container terminals and specialized coal and ore terminals.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 21339 Methods for Statistical Analysis of Port Energy Consumption

GB 31823 Energy Consumption Limits for Products of Terminal Operation Units

GB 50189 Standard for Energy-Saving Design of Public Buildings

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 The amount of carbon dioxide emitted by a port during the period of assessment, based on the throughput of cargo and energy consumption per unit of production and operation.

3.2 direct CO₂ emission Carbon dioxide emissions are produced during the combustion of fossil fuels such as diesel, gasoline, and liquefied natural gas.

3.3 Indirect CO₂ emission Carbon dioxide emissions from production processes such as electricity and heat.

3.4 The sum of direct and indirect carbon dioxide emissions.

4 Scope of Assessment

4.1 Energy types assessed Carbon dioxide emission assessment should include the

following energy sources.

---Fossil fuels such as diesel, gasoline, and liquefied natural gas;

---Electricity (purchased externally);

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