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

GB 16994.7-2022

Safety requirements for port operation - Part 7: Cement

港口作业安全要求 第7部分 水泥

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document is part 7 of GB 16994 "Safety Requirements for Port Operations". GB 16994 has released the following parts.

- 1. Oil and gas chemical terminal;
- 2. Petrochemical reservoir area;
- 3. Dangerous goods containers;

7. Cement. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the Ministry of Transport of the People's Republic of China.

Port operations involve the safety of facilities and equipment, ships, goods and personnel in the port area, and belong to the key areas of safety monitoring and management. Due to different There are great differences in the aspects of cargo loading and unloading, loading and unloading equipment and facilities, operating techniques and the level of operators in port operation sites. On the basis of considering the safety development level of the industry, the status quo of enterprise safety management and on-site operation experience, according to different types of port operation sites and For the operation projects, the operation safety requirements were formulated respectively, and the mandatory standards for port operation safety requirements were formed into a series of standards, so as to meet the standards The coordination and unification among the various parts is convenient for the use of the document. GB 16994 "Safety Requirements for Port Operations" aims to effectively improve the safety of port operations. level and reduce operational safety risks.

GB 16994 is planned to be composed of 7 parts.

- 1.Oil and gas chemical terminals. The purpose is to clarify the operation safety requirements of the oil and gas chemical wharf and standardize the operation behavior.
- 2.Petrochemical reservoir area. The purpose is to clarify the operation safety requirements of the port petrochemical storage area and standardize the operation behavior.
- 3.Dangerous goods containers. The purpose is to clarify the safety requirements for the operation of dangerous goods containers in the port, and to standardize the operation. Behavior.
- 4.General cargo containers. The purpose is to clarify the safety requirements for the operation of general cargo containers in ports, and to standardize the operation. Behavior.
- 5.General cargo. The purpose is to clarify the safety requirements for the operation of general cargo in the port and to standardize the operation behavior.
- 6.Dangerous goods in solid bulk. The purpose is to clarify the safety requirements for the operation of solid and bulk dangerous goods in the port, and to standardize the operation. Behavior.
- 7.Cement. The purpose is to clarify the safety requirements of port cement operation and standardize the operation behavior. Port operation safety requirements Part

1 Scope

Part 7 of China's mandatory safety requirements for port operations, covering cement. Cement moves through ports in enormous quantity, in bulk by pneumatic conveying and in bags by the shipload, and its hazards are not the obvious ones. Cement dust is caustic - it burns skin and eyes on contact with moisture and causes chronic respiratory damage - so containment and personal protection are the first requirement. The second is the behaviour of the material itself: powdered cement in a silo or a hold aerates and flows like a liquid, so a person walking on the surface sinks and is buried, and the crust that forms over a void collapses without warning. Those are the entry and confined space provisions. Around them sit the pneumatic system's pressure and its dust filtration, the silo venting, and the bagged handling with its manual lifting and stack stability.

This document specifies general requirements for cement handling and storage operations in ports, as well as packing cement operations, bulk cement terminal handling operations and bulk cement operations. Safety technical requirements for the operation of cement silo systems. This document applies to port cement handling and storage operations.

2 Normative references

The contents of the following documents constitute essential provisions of this document

through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB 4915 Cement Industry Air Pollutant Emission Standard

GB/T 6067.1 Safety Regulations for Lifting Machinery Part

2.1 Occupational Exposure Limits for Hazardous Agents in the Workplace Part

1.Chemical Hazardous Agents AQ2047 Safety Regulations for Manual Clearance of Cement Factory Cylinder Storage Warehouses JT/T

90 Wind Load Calculation and Windproof Safety Requirements for Port Handling Machinery JT/T 557 Port loading and unloading area lighting illumination and measurement method

3 Belt conveyors, buried scraper conveyors and bucket elevators lift

GB 16993 Safety Regulations for Preventing Oxygen Oxygen Hazardous Operations in Enclosed Spaces of Ships GBZ

4 General requirements

4.1 Enterprises should prepare relevant safety management systems, safety operation rules and Emergency plans, and conduct emergency drills on a regular basis according to the prepared emergency plans.

4.2 The enterprise should formulate a loading and unloading operation plan according to the loading and unloading process, packaging specifications and operating conditions, and the operators should follow the loading and unloading operation plan. Operation.

4.3 Practitioners should be educated and trained in safety production; special equipment operators should have qualifications.

4.4 The operator shall comply with the relevant requirements of GB 16993 when entering the cabin to operate.

5 Bridge and Gantry Cranes

GB/T 13561.2 Safety Regulations for Continuous Handling Equipment in Ports Part