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**Technical specification for design of bulk grain handling facility
(English Translation)**

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Foreword

According to the "Food Technical Construction Standards for the Provision of Grain Warehouse Maintenance and Renovation" issued by the Office of the State Grain Administration, the requirements of the Notice of the Ministry of Health (the National Food Industry Exhibition [2006] 142), the standard preparation team after extensive investigation and research, carefully summed up the engineering practice experience, reference this standard is formulated on the basis of relevant domestic standards and on the basis of extensive solicitation of opinions.

The main technical contents of this standard are: general rules, terminology, basic regulations, ship bulk grain receiving and distributing facilities, train bulk grain receiving and distributing facilities, Automobile bulk grain receiving and distributing facilities, bulk grain receiving and distributing conveyor lines and supporting storage capacity, dust control system and electrical control.

This standard is managed by the National Grain Bureau, and the Henan Institute of Technology Design and Research Institute is responsible for the interpretation of specific technical content. During execution If you have any comments or suggestions, please send them to Henan Gongda Design and Research Institute (Henan Industrial University, 100 Lianhua Street, High-tech Development Zone, Zhengzhou City, Henan Province).

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Yu Haoda, Tan Huaye, Jiang Leike, Liang Caihong, Fu Zhonghua, Yu Zhijie, Huang Yinping, Li Xingang, Wu Qingfeng, Zheng Kun, Liu Qiang, Wang Shaowen, Feng Panyu.

The main examiners of this standard. Wang Lirong, Zhu Zhiguang, Wang Dianxuan, Tang Xuejun, Wang Zhenqing, Shao Jiandong, Wang Renzhen, Yuan Hailong, Zhang Mingxue, Han Deming, Zheng Moli, Yu Yulin, Yang Songshan, Xu Feng, Gu Mingxin, Guan Zhiyuan, Zhao Qinghe, Ye Tao.

1 General

1.0.1

To standardize the technical requirements for the design and distribution of bulk grain receiving facilities, standardize the project construction process system design and equipment selection, and improve facilities.

The industry efficiency and mechanization automation level, reduce the cost of grain circulation, and adapt to the development needs of bulk grain logistics, and develop this standard.

1.0.2

This standard applies to the process, electrical and automatic of bulk grain receiving and distributing facilities for grain storage and logistics projects of new construction, expansion and reconstruction.

The design of the control system shall be designed according to the requirements of the relevant national and industry standards.

1.0.3

Bulk grain receiving and distribution facilities should be designed according to local conditions, save land, protect the environment, save energy, high efficiency, safe production and economic application. Reconstruction and the expansion project should make full use of the original facilities and other resources to avoid or reduce the impact on the original facilities.

1.0.4

In addition to the implementation of this standard, the design of bulk grain receiving and distributing facilities shall comply with the relevant national standards.

2 Terms

2.0.1

Bulk grain in the operation of loading, unloading, transportation and storage of the grain circulation process, granular raw grains appear in bulk form.

2.0.2

Bulk grain receiving and distribution facility bulkgrainhandlingfacility the general name of the process system, electrical and automatic control system and corresponding building (structure) of the bulk grain receiving and distributing operation.

2.0.3

Design ship designvessel A certain size and tonnage of the ship type used in the design.

2.0.4

Design model truckmodelortrainwagonmodel the size and weight of the bulk grain vehicle model or the bulk grain train wagon type used in the design.

2.0.5

Unloading station

Fixed facilities for unloading train wagons or car bulk food, usually by unloading pits, process systems, electrical and automatic control systems and corresponding the composition of the building (structure).

2.0.6

Loading station Fixed facilities for loading train wagons or car bulk food, usually by loading bins, process systems, electrical and automatic control systems and corresponding the composition of the structure.

2.0.7

Bulk grain special dock grainterminal the bulk grain processing system is used for docks for bulk grain handling operations.

2.0.8

Vessel efficiency

The ratio of the total amount of loading and unloading of the ship to the loading and unloading time.

2.0.9

Berth through capability berthcapacity A berth can load and unload the rated quantity of the cargo carried by the ship within a certain period of time.