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

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**Technical requirement for environmental labeling products.
Cement
(English Translation)**

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Foreword

To implement the Environmental Protection Law of the People's Republic of China, reduce the production, use, packaging, transportation and disposal of cement.

This standard is developed for greenhouse gas emissions and for environmental and human health effects.

This standard puts a limit on the comparable carbon dioxide emissions and product radioactivity of cement clinker and cement products.

begging.

This standard is the first release.

This standard applies to China Environmental Labeling Product Certification and China Environmental Labeling Low Carbon Product Certification.

This standard was formulated by the Science and Technology Standards Department of the Ministry of Environmental Protection.

This standard is mainly drafted by. Environmental Development Center of the Ministry of Environmental Protection, China Building Materials Science Research Institute, China Cement Association Hui, China Sinoma Group Co., Ltd., Tangshan Jidong Cement Co., Ltd., Anhui Conch Group Co., Ltd., Beijing Water Mud Factory Co., Ltd. and Lafarge Shui On Cement Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on July 3, 2012.

This standard has been implemented since October 1, 2012.

This standard is explained by the Ministry of Environmental Protection.

Environmental labeling product technical requirements cement

1 Scope of application

This standard specifies the terms and definitions, basic requirements, technical content and inspection methods of cement environmental labeling products.

This standard applies to the general Portland cement produced by the new dry process cement production process.

2 Normative references

The contents of this standard refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB 175-2007 General Portland Cement GB 4915 Emission Standard for Air Pollutants in Cement Industry GB 6566-2010 Radionuclide limited edition of building materials GB 16780 cement unit product energy consumption limit GB/T 176 cement chemical analysis method Industrial analysis method of GB/T 212 coal GB/T 213 coal calorific value measuring method GB/T 476 Determination of carbon and hydrogen in coal GB/T 4131-1997 Cement naming, definition and terminology Quantitative determination of GB/T 12960 cement components GB/T 26281 Cement rotary kiln heat balance, thermal efficiency, comprehensive energy consumption calculation method HJ 467 Cleaner Production Standard Cement Industry JC/T 452 general cement quality grade

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Cement

Mixing water into a plastic slurry, a powdery hydraulic cementing material capable of cementing suitable materials such as sand and stone and hardening in air and water.

(GB/T 4131-1997)

3.2 General Portland cement common portland cement

A hydraulic cementitious material made of Portland cement clinker and appropriate amount of gypsum and a specified mixed material. (GB 175-2007) Including Portland cement, Portland cement, slag Portland cement, pozzolan Portland cement, fly ash Portland cement and Composite Portland cement.

3.3 New dry cement production process

The pre-decomposition kiln is the core of the firing process, combined with high-efficiency grinding technology and automatic control technology integrated cement production process.

3.4 Mine repair quarry rehabilitation

In view of the characteristics and damage caused by the formation of abandoned land in mining, cover the subsoil, land consolidation, soil improvement, water supply and drainage Engineering, slope protection engineering, vegetation restoration, etc., to carry out mine ecological restoration.

3.5 Alternative raw materials

A waste with suitable chemical composition that can replace some natural ore raw materials in cement production.

3.6 Alternative fuels alternative fuels

With a certain calorific value, after simple processing (such as. crushing), it can replace traditional fossil fuel in cement production for direct combustion.

Waste.

3.7 Unit comparable carbon dioxide (CO₂) emissions comparable specific CO₂ emission

During the statistical period, based on the cement production line altitude and cement strength grade, the CO₂ emissions from cement clinker or cement products are A comparable value obtained after the correction.

3.8 Direct carbon dioxide (CO₂) emissions direct CO₂ emission

Decomposition of carbonate minerals from cement production and CO₂ emissions from combustion of various fossil fuels. The corresponding source of CO₂ emissions is cement.

The production company owns or controls.

3.9 Indirect carbon dioxide (CO₂) emissions indirect CO₂ emission

CO₂ emissions from cement production of purchased electricity, purchased cement clinker, etc., and corresponding CO₂ emission sources are owned or controlled by other enterprises.

system.

3.10 Co-processing waste waste co-processing

Waste or pretreated waste is sent to a cement kiln for incineration to achieve decontamination and comprehensive utilization of waste.

3.11 Internal exposure index

The ratio of the radioactivity specific activity of the natural radionuclide radium-226 in cement to the limit values specified in this standard.

The expression is.

Where. aRI - internal exposure index;

aRC - the specific activity of the natural radionuclide radium-226 in cement, Bq·kg⁻¹;

200 - Only considering the internal exposure, the radioactive specific activity limit of the radionuclide ra-226 in the cement specified in this standard Quantity, Bq·kg⁻¹.

3.12 External exposure index

The specific radioactivity of the natural radionuclides Ra-226, ?-232 and K-40 in cement is the same as that of the respective radioactive nuclides the sum of the ratios of the quasi-specified limits.

The expression is.