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

GB 15580-2011

Replacing GB 15580-1995

**Discharge standard of water pollutants for the phosphate
fertilizer industry**

磷肥工业水污染物排放标准

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1 Scope of application

GB 15580 sets the water pollutant discharge limits for the phosphate fertiliser industry, whose effluent is characterised by phosphorus and fluoride rather than by the organic load the general wastewater standard is written around. It fixes the maximum allowable concentrations and the unit discharge loads for existing and new facilities, the special limits applying in sensitive areas, and the monitoring and implementation provisions, and it is used both in permitting and in environmental impact assessment. Note that it carries a 2020 amendment, GB 15580-2011/XG1-2020, in force since 1 January 2021. Issued on 2 April 2011, in force since 1 October 2011, replacing GB 15580-1995. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This standard specifies the limits for the discharge of water pollutants from phosphate fertilizer industrial enterprises or production facilities. This standard applies to the management of water pollutant discharge in existing phosphate fertilizer industrial enterprises or production facilities. This standard applies to the environmental impact assessment of the phosphate fertilizer industry construction project, the design of environmental protection facilities, the completion of environmental protection acceptance and its investment Post-production water pollutant discharge management. This standard applies to the discharge of pollutants permitted by law. Sites for newly established pollution sources and tubes for existing pollution sources in special protection areas Li, in accordance with the Law of the People's Republic of China on the Prevention and Control

of Air Pollution, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, Environmental Protection Law, Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, Law of the People's Republic of China on Prevention and Control of Radioactive Pollution, The relevant provisions of laws, regulations and rules such as the Environmental Impact Assessment Law of the People's Republic of China shall be implemented. The water pollutant discharge control requirements specified in this standard are applicable to the behavior of enterprises directly or indirectly discharging water pollutants outside their legal boundaries.

2 Normative references

The contents of this standard refer to the following documents or their terms. GB/T 6920-

86 Determination of pH of water - Glass electrode method GB/T 7484-

87 Determination of fluoride in water quality - Ion selective electrode method GB/T 7485-

87 Determination of total arsenic in water - Diethyldithiocarbamate spectrophotometric method GB/T 11893-

89 Determination of total phosphorus in water - Ammonium molybdate spectrophotometric method GB/T 11894-

89 Determination of total nitrogen in water -- Basic potassium persulfate digestion spectrophotometric method GB/T 11901-

89 Determination of suspended solids by weight method GB/T 11914-

89 Determination of chemical oxygen demand in water - Dichromate method HJ/T 84-2001

Determination of inorganic anions in water - Ion chromatography HJ/T 195-2005

Determination of ammonia nitrogen in water quality HJ/T.199-2005 Determination of total nitrogen in water -- Gas phase molecular absorption spectroscopy HJ/T 399-2007

Determination of chemical oxygen demand in water quality - Rapid digestion spectrophotometric method

HJ 487-2009 Determination of fluoride in water quality - Zirconium sulphonate Water quality - Determination of fluoride - Fluorescence spectrophotometric method

HJ 535-2009 Determination of ammonia nitrogen in water quality - Nexus reagent spectrophotometric method

HJ 536-2009 Determination of ammonia nitrogen in water quality - Salicylic acid spectrophotometric method

HJ 537-2009 Determination of ammonia nitrogen in water quality - Distillation - Neutralometric titration Measures for the Automatic Monitoring and Control of Pollution Sources (Order No. 28 of the State Environmental Protection Administration) Measures for

the Administration of Environmental Monitoring (Order No. 39 of the State Environmental Protection Administration)

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Phosphate fertilizer industry The industry that produces phosphate fertilizer products. Phosphate fertilizer products include: superphosphate (referred to as calcium), calcium magnesium phosphate, ammonium phosphate, heavy superphosphate (simplified Weighing calcium), compound fertilizers (including compound fertilizers and fertilizers), nitrophosphate and other by-products (such as fluorine processing products), and the production of phosphate fertilizer. The intermediate product required is phosphoric acid (wet method).

3.2 Existing enterprise existing facility Phosphate fertilizer enterprises or production facilities that have been approved for production or environmental impact assessment documents have been completed by the date of implementation of this standard.

3.3 New enterprise new facility From the date of implementation of this standard, the environmental impact assessment document approved the construction, reconstruction and expansion of the phosphate fertilizer industry construction project.

3.4 Direct discharge The behavior of pollutant discharge units directly discharging pollutants into environmental water bodies.

3.5 Indirect discharge The discharge of pollutants by the pollutant discharge unit to the public sewage treatment system.

3.6 Public sewage treatment system Collect wastewater through sewage pipelines, provide wastewater treatment services for more than two sewage disposal units, and discharge to achieve relevant emissions. Enterprises or institutions required by the standard, including urban sewage treatment plants of various scales and types, areas (including various industrial parks, development zones, industrial gathering places, etc.) Wastewater treatment plants, etc., should have a wastewater treatment level of two or more.

3.7 Effluent volume The amount of wastewater discharged by a production facility or enterprise outside the legal boundaries of the enterprise, including various external wastes that are directly or indirectly related to production. Water (such as domestic sewage, cooling wastewater, plant boilers and power station drainage).

3.8 Benchmark effluent volume per unit product The upper limit of the wastewater discharge amount of the production unit phosphate fertilizer product specified for the approval of the discharge concentration of water pollutants.

4 Water pollutant emission control requirements

4.1 From October 1, 2011 to March 31, 2013, existing companies implement the water pollution emission limits specified in Table 1. Table

1 Limits of existing enterprise water pollutants Unit. mg/L (except pH) Serial number of pollutants Direct emission limit indirect discharge Limit pollutant discharge monitoring position, superphosphate, calcium, magnesium phosphate, ammonium phosphate, a heavy superphosphate, compound fertilizer 1 pH value 69 69 69 69 69 6

5 Water pollutant monitoring requirements

5.1 Sampling of wastewater discharged by enterprises shall be carried out according to the type of pollutants to be monitored and at the monitoring location of the specified pollutant discharge. Waste water The treatment facilities shall be monitored after the treatment facility. A permanent drain outlet sign shall be provided at the pollutant discharge monitoring location.

5.2 Requirements for the installation of automatic monitoring equipment for pollutant discharge in newly-built enterprises and existing enterprises, in accordance with relevant laws and "Automatic Monitoring and Management of Pollution Sources" The provisions of the Measures are implemented.

5.3 Frequency, sampling time, quality assurance and quality control requirements for monitoring the discharge of pollutants from enterprises, according to relevant national pollution Implementation of the technical specifications for dye source monitoring.

5.4 The verification of the output of the enterprise products shall be based on the statutory statements.

5.5 The enterprise shall monitor the discharge status and preserve the original monitoring in accordance with the relevant laws and the Measures for the Administration of Environmental Monitoring. recording.

5.6 The method standards listed in Table 4 are used to determine the concentration of pollutants discharged from enterprises. Table

4 Standards for determination of water pollutant concentration No. Contaminant Project Method Standard Name Method Standard Number 1 pH value water quality determination of glass electrode method GB/T 6920-86

2 Chemical oxygen demand water quality Determination of chemical oxygen demand - Dichromate method GB/T 11914-

89 Water quality chemical oxygen demand determination Rapid digestion spectrophotometric method HJ/T 399-2007