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

GB 19430-2013

Replacing GB 19430-2004

Discharge standard of water pollutants for citric acid industry

柠檬酸工业水污染物排放标准

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1 Scope of application

The standard lays down the water pollutant discharge limits, the monitoring and monitoring-control requirements for citric acid industrial enterprises or production facilities, and the related provisions on implementation and supervision of the standard.

It applies to the management of water pollutant discharge from existing citric acid industrial enterprises or production facilities.

It applies to the environmental impact assessment of construction projects of citric acid industrial enterprises, to the design of their environmental protection facilities, to completion environmental protection acceptance, and to the management of water pollutant discharge after the projects are put into production.

It applies to water pollutant discharge behaviour permitted by law. The siting of newly established pollution sources and the management of existing pollution sources inside specially protected areas are handled according to the relevant provisions of the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Marine Environment Protection Law of the People's Republic of China and the Environmental Impact Assessment Law of the People's Republic of China.

The water pollutant discharge control requirements laid down in the standard apply to the discharge of water pollutants by an enterprise, directly or indirectly, beyond its legal boundary.

2 Normative references

The standard cites the following documents or clauses of them. For undated references, the latest version applies to the standard.

Water quality test methods cited: GB/T 6920 (determination of pH value, glass electrode method); GB/T 11893 (determination of total phosphorus, ammonium molybdate

spectrophotometric method); GB/T 11901 (determination of suspended substances, gravimetric method); GB/T 11903 (determination of colour); GB/T 11914 (determination of chemical oxygen demand, dichromate method); HJ 505 (determination of five-day biochemical oxygen demand, dilution and seeding method); HJ 535 (determination of ammonia nitrogen, Nessler reagent spectrophotometric method); HJ 536 (determination of ammonia nitrogen, salicylic acid spectrophotometric method); HJ 537 (determination of ammonia nitrogen, distillation-neutralisation titration method); HJ 636 (determination of total nitrogen, alkaline potassium persulfate digestion UV spectrophotometric method); HJ/T 86 (determination of biochemical oxygen demand, microbial sensor rapid method); HJ/T 195 (determination of ammonia nitrogen, gas-phase molecular absorption spectrometry); HJ/T 199 (determination of total nitrogen, gas-phase molecular absorption spectrometry); HJ/T 399 (determination of chemical oxygen demand, rapid digestion spectrophotometric method).

Two administrative documents are cited as well: the Measures for the Administration of Automatic Monitoring of Pollution Sources (State Environmental Protection Administration Order No. 28) and the Measures for the Administration of Environmental Monitoring (State Environmental Protection Administration Order No. 39).

3 Terms and definitions

The following terms and definitions apply to the standard.

3.1 citric acid industry: production enterprises or production facilities that use maize (starch), dried sweet potato (starch) and similar materials as main raw materials and produce citric acid products through saccharification, fermentation, extraction, refining and similar processes.

3.2 existing facility: a citric acid production enterprise or production facility that, before the date the standard takes effect, has been built and put into production, or whose environmental impact assessment document has been approved.

3.3 new facility: a construction project for new, rebuilt or extended citric acid production facilities whose environmental impact assessment document is approved on or after the date the standard takes effect.

3.4 effluent volume: the quantity of wastewater that a production facility or enterprise discharges beyond the legal boundary of the enterprise, including every kind of external wastewater directly or indirectly related to production (plant-area domestic sewage, cooling wastewater, plant-area boiler and power station drainage and the like).

3.5 benchmark effluent volume per unit product: the upper limit laid down for the wastewater discharge of a unit of citric acid product, used to check water pollutant discharge concentrations.

3.6 direct discharge: the discharge of water pollutants by a discharging unit directly into the environment.

3.7 indirect discharge: the discharge of water pollutants by a discharging unit into a public wastewater treatment system.

3.8 public wastewater treatment system: an enterprise or institution that collects wastewater through sewage pipes or similar means, provides wastewater treatment services to two or more discharging units, and whose effluent can meet the requirements of the relevant discharge standards; it includes urban sewage treatment plants of every size and type and regional wastewater treatment plants (industrial parks, development zones, industrial clusters and the like), whose treatment level is to reach secondary treatment or above.

4 Water pollutant discharge control requirements

4.1 From 1 July 2013 until 31 December 2014, existing enterprises were to comply with the water pollutant discharge limits laid down in Table 1.

Table 1 is headed 'Water pollutant discharge limits and benchmark effluent volume per unit product for existing enterprises' and is expressed in mg/L, pH value and colour excepted. It has five columns: item number, pollutant item, limit for direct discharge, limit for indirect discharge, and pollutant discharge monitoring position.

The eight pollutant items and their direct and indirect discharge limits read: 1 pH value, 6~9 and 6~9; 2 colour (dilution factor), 50 and 100; 3 suspended substances, 80 and 160; 4 five-day biochemical oxygen demand (BOD₅), 40 and 80; 5 chemical oxygen demand (COD_{Cr}), 150 and 300; 6 ammonia nitrogen, 15 and 30; 7 total nitrogen, 25 and 80; 8 total phosphorus, 2.0 and 4.0. For all eight items the monitoring position is the total wastewater discharge outlet of the enterprise.

The last row of Table 1 sets the benchmark effluent volume per unit product at 40 m³/t, and states that the position where the effluent volume is metered coincides with the pollutant discharge monitoring position.

The pages examined end with Table 1; the text of clauses 5 and 6, and any further tables of clause 4, lie beyond them and have not been read.