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

GB/T 16811-2018

Replacing GB/T 16811-2005

**Running results and monitoring of industrial boilers
water-treatment equipment**

工业锅炉水处理设施运行效果与监测

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Category 2 5 operation effect requirements	2
6 Daily water quality monitoring	5
14 Appendix D (informative) Test method for the effect of boiler scale inhibitor	
Appendix E (informative) Periodic inspection report on the operation effect of water treatment facilities	22

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 16811-2005 "Working effect and monitoring of industrial boiler water treatment facilities". And GB/T 16811-2005 In contrast to the editorial changes, the main technical changes are as follows:

- Revised scope (see Chapter 1, Chapter 1 of the.2005 edition);
- Six reference standards have been added to the normative references (see Chapter 2, Chapter 2 of the.2005 edition);
- Added terms and definitions (see Chapter 3);
- Revised the classification of water treatment facilities, added reverse osmosis equipment, iron removal equipment, etc. (see Chapter 4, Chapter 3 of the.2005 edition);
- Added pretreatment equipment, reverse osmosis equipment, deaerator equipment, iron removal equipment, sewage disposal equipment, soda water sampling device and online monitor Table operation effect requirements, modified ion exchanger, dosing device and pharmaceutical operation effect requirements, increased requirements for sewage device (See Chapter 5, Chapter 4 of the.2005 edition);
- Revised the provisions for daily monitoring of boiler water quality (see Chapter 6, Chapter 5 of the.2005 edition);
- Revised the periodic inspection test and evaluation of operational effects (see Chapter 7, Chapter 6 of the.2005 edition);
- Appendix revised the industrial boiler water quality monitoring report, industrial boiler water treatment facilities economic operation effect monitoring report, increased Sub-exchange resin economic operation index detection method, reverse osmosis

operation index detection method, boiler scale inhibition inhibitor effect detection method Law, deleted Appendix C of the.2005 edition (see Appendix A, Appendix B, Appendix C, Appendix D, Appendix E, Appendix A of the.2005 edition, Appendix B, Appendix C). This standard is proposed and managed by the National Boiler and Pressure Vessel Standardization Technical Committee (SAC/TC262). This standard was drafted. China Boiler Water Treatment Association, Guangzhou Special Pressure Equipment Testing and Research Institute, Xianyang Quality and Technical Supervision Bureau, Beijing Kangjie Morning Water Treatment Technology Co., Ltd., Jiangsu Special Equipment Safety Supervision and Inspection Institute Wuxi Branch, Dalian Boiler Pressure Capacity Institute of Inspection and Quarantine, Shenzhen Special Equipment Safety Inspection Institute, Xinjiang Bayin Guoyu Mongolian Autonomous Prefecture Special Equipment Inspection and Inspection Institute, Bayan Muir Special Equipment Inspection Institute, Huikeqi (Tianjin) Water Quality Additive Co., Ltd., Zhuhai Jingong Testing Technology Co., Ltd., Henan Sijiqing Environmental Engineering Co., Ltd. The main drafters of this standard. Jin Dong, Yang Lin, Ge Shengqun, Wang Shijie, Deng Hongkang, Zhao Bo, Zhang Juguang, Su Yong, Zhang Xiaoli, Feng Peixuan, Guo Linyuan, Wang Lei, Chen Jianxing. The previous versions of the standards replaced by this standard are.

---GB/T 16811-1997, GB/T 16811-2005. Operation effect and monitoring of industrial boiler water treatment facilities

1 Scope

GB/T 16811-2018 is the Chinese national standard on running results and monitoring of industrial boilers water-treatment equipment, in the field of energy and heat transfer engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 14 May 2018 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2018. Classification: ICS 27.060.30, CCS F01. 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 issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the classification, operation effect, daily water quality monitoring, regular inspection and evaluation of operational effects of industrial boiler water treatment facilities. This standard is applicable to fixed steam boilers, steam-water dual-purpose boilers with rated outlet steam pressure less than

3.8 MPa and water as medium. Water treatment facility for hot water boilers.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 150 (all parts) pressure vessel

GB/T 1576 industrial boiler water quality

GB/T 6907 boiler water and cooling water analysis method water sample collection method

GB/T 12149 Determination of silicon in industrial circulating cooling water and boiler water
Methods of analysis of water vapors - Part 21. Determination of residual chlorine
(colorimetric method) Water vapor analysis methods for thermal power plants - Part 22.
Determination of chemical oxygen demand (potassium permanganate method) DL/T 588
Determination of water pollution index

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Industrial boiler water treatment facility industrialboilerswater-treatmentequipment
Equipment and devices for preventing or slowing the corrosion and scaling of industrial
boilers and water vapor systems, preventing the co-existence of steam and water,
regulating water quality, and monitoring water quality.

3.2 Pretreatment Pre-treatment measures to bring the water quality to the processing
conditions of subsequent equipment.

3.3 Deoxygenation treatment Process measures for removing dissolved oxygen in water by
physical or chemical means.

3.4 Deferrization treatment Process measures for removing iron from water by mechanical
retention or oxidation-mechanical retention.

3.5 Dosing chemicaldosingtreatment A specific effect of the water treatment process is
achieved by targeted addition of a chemical water treatment agent.

3.6 Online monitoring instrument on-linemonitoringinstrument Analytical instrument for
continuously and continuously monitoring the water vapor index set by the boiler water
vapor system.