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

GB/T 15910-2009

Replacing GB/T 15910-1995

**Monitoring and testing for energy saving of heat-transmission
and distribution system**

热力输送系统节能监测

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Foreword

This standard replaces GB/T 15910-1995 "Thermal energy monitoring system delivery method." This standard compared with GB/T 15910-1995, the main changes are as follows:

- Modify the standard name;
- Increased rate as the major trap steam leakage monitoring project;
- Refinement of insulation materials and insulation requirements;
- Increased provision trap steam leakage rate calculation and test methods;
- Increased the ambient wind speed and ambient temperature requirements;
- Increased the energy monitoring evaluation of the results;
- Increased reporting format. Appendix A of this standard is a normative appendix, Appendix B is an informative annex. This standard by the National Standardization Technical Committee for Energy and management proposed. This standard by the National Standardization Technical Committee Sub-Committee on Energy Management and Energy Management. This standard was drafted. NDRC Energy Research Institute, China National Institute of Standardization, China Energy Conservation Supervision Information Network. The main drafters of this standard. Xinding Guo, Chen Hai Hung, Lee Aixian, Hu Xiulian, Xiao-Ping Chen, Zhang BBA students. This standard replaces the standards previously issued as follows:
- GB/T 15910-1995. Thermal energy monitoring transport system

1 Scope

GB/T 15910-2009 is the Chinese national standard on monitoring and testing for energy saving of heat-transmission and distribution system, 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 30 October 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 May 2010. Classification: ICS 27.010, 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 monitoring project of heat transmission and energy monitoring systems, monitoring methods and assessment indicators. This standard applies to heating, steam and hot water delivery system thermal units.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 4272 General technical equipment and pipeline insulation

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 The outer pipe and accessories insulation temperature difference between the surface temperature of the surrounding environment.

4.1 Thermal energy monitoring system to check project delivery

4.1.1 heating network and heating equipment and accessories may not be visible or leaking steam leakage phenomenon.

4.1.2 Thermal insulation pipes and fittings shall meet the following requirements.

a) the outer surface temperature is greater than or equal to the nominal diameter of the pipe section and $D_g \geq 80\text{mm}$ valves, flanges and other accessories $50\text{ }^{\circ}\text{C}$, in addition to the production process Or no insulation on the outside should not be part of the insulation should be carried out; Choose

b) insulation materials should be consistent with GB/T 4272 regulations;

- c) insulation should not have serious damage, loss and other defects;
- d) outdoor thermal pipe insulation should be rain, moisture and a protective layer nonflammable;
- e) heat pipe laying trench shall be subjected to water immersion.

4.1.3 The main system equipment, piping, etc. should be fixed insulation, flanges, valves, etc. should be removable insulation.

4.1.4 Thermal transfer system should be installed at the generated condensate trap and kept intact; not use phase-out product, nor replaced by valve Trap.

4.2 Thermal energy monitoring test project delivery system

4.2.1 insulation surface temperature, including the determination of the following parameters.

- a) an outer surface temperature of the insulation structure;
- b) measuring the ambient temperature around the point;
- c) measuring points around the wind speed.

4.2.2 trap steam leakage rate.

5 Thermal energy monitoring system delivery method

5.1 Test conditions Tests should be carried out in normal operating conditions the heat transport system.