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

GB/T 13462-2008

Replacing GB/T 13462-1992

Economical operation for power transformers

电力变压器经济运行

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Foreword

This standard replaces GB/T 13462-1992 "Enterprise Power Transformer Economic Operation Guide." This standard compared with GB/T 13462-1992 main changes are as follows:

- Delete the original standard name of the "mining industry" and "guidance."
- The scope of the words "This standard applies to power generation and supply, economic operation and management of power units running power transformers, as well as Units of new construction, renovation configuration of power transformers. "
- Deletes from the original 3.9 "active load rate" as used herein, an increase of "Reactive economic equivalent", "phase unbalanced load loss coefficient", "non Zone economy "," economic load allocation "," economic capacity "," Economic several "and other terms.
- Cancel the original basic formula of the clauses, the basic formula into Appendix A, and adds three-winding transformer in Appendix A The basic formula.
- In economic operation mode selection, increase the selection of parallel operation of three-winding transformer economic operation mode.
- In determining the economic performance in the region, adding "economic load factor", "three-winding transformer the best economic load factor" and the "three around Group transformer economic operation zone. "
- Increase the transformer load regulation of content.
- Canceled reg former economy electricity savings calculations.
- Added "phase unbalanced load transformer loss factor" and "Reactive economic equivalent", "basic formula" and "case" four appendix. Appendix A of this standard is a normative appendix, Appendix B, Appendix C, Appendix D and Appendix E is an informative annex. This standard by the National Standardization Technical Committee for Energy and management proposed. This standard is under the jurisdiction of the National Energy Commission on the basis of rational use of electricity points and Management Standardization Technical Committee. This standard is drafted by: China National Institute

of Standardization, Steel Energy Limited Granville, the International Copper Association, China Electric Power Research Institute Study Institute, Harbin Institute of Technology, State Grid Wuhan High Voltage Research Institute, Northeast Power Grid Corporation, Shanghai Zhixin Electric Co., Ltd. The main drafters of this standard. in Distribution Zhao Yuejin, Dong Zhiheng, Dike Jun, Zhang Shuzhen, Zhang Lingyu, Hu Guoyuan, Wu Bin, in the following years, Jinya Ming, Wang Yanfeng. This standard was first published in 1992, this is the first revision. Power Transformer Economic Operation

1 Scope

GB/T 13462-2008 is the Chinese national standard on economical operation for power transformers, 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 27 May 2008 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 November 2008. 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 power transformer (hereinafter referred to as. Transformer) principle and technical requirements of economic operation, and determining the economic operation Calculation methods and management requirements. This standard applies to economic operation and management of power generation, power supply, power units running power transformers, as well as units of new construction, renovation and Power Power transformer configuration.

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 1094 (all parts) Power Transformer

GB/T 6451 oil-immersed power transformers technical parameters and requirements

GB/T 10228 dry type power transformers technical parameters and requirements

GB 20052-phase distribution transformer energy efficiency of limited value and energy conservation evaluation values DL/T 985 distribution transformer energy efficiency technical

and economic evaluation guidelines

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Ensuring safe and reliable operation and power supply to meet demand, based on the rational allocation by the transformer, the transformer operation mode To optimize the selection, implementation of the economic adjustment transformer load, thereby minimizing the power loss of the transformer. 3.2 DeltaPZ Operating Transformer active power loss and reactive power consumption because it increases the active power grid by the sum of the loss. 3.3 DeltaPZ% Its input transformer integrated power loss ratio of active power percentage.

3.4 KQ The amount of loss caused by the active power grid to increase or decrease the transformer reactive power consumption increases or decreases by 1kvar.

3.5 Within a certain period of time, depending on the ratio of the power transformer rated capacity of the transformer average output.