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

GB 24848-2010

**Minimum allowable values of energy efficiency and energy
efficiency grades for heater of petroleum industry**

石油工业用加热炉能效限定值及能效等级

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 5 Test Methods

Foreword

4.4 of this standard are mandatory, the rest are recommended. The standard proposed by China National Petroleum Corporation. This standard by the National Standardization Technical Committee for Energy and Management. This standard is drafted by: China National Petroleum Corporation Petroleum Engineering energy-saving technology research and development centers. Participated in the drafting of this standard. China National Petroleum Corporation Quality Management and Energy Ministry, China Petroleum & Chemical Corporation oil Field Development Division, China National Petroleum Exploration and Production Company Limited, Daqing Petroleum Institute, China Petroleum Pipeline Machinery Manufacturing has Limited liability company, China National Petroleum Corporation, Northwest Energy Conservation Monitoring Centre, the Daqing oil field equipment manufacturing group. Drafters of this standard. according to Wu Yun, Xue-Wen Wang, The Middle, ZHAO Gui Zi, Jin Xin, a Qinglin, SUN Yu, Zou Feng, Zhu Bin, Xuxiu Fen, It's coming now. Industrial furnace oil Energy efficiency of limited value and energy efficiency rating

1 Scope

GB 24848-2010 is the Chinese national standard on minimum allowable values of energy efficiency and energy efficiency grades for heater of petroleum industry, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 30 June 2010 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 December 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 petroleum industry furnace energy efficiency rating, energy efficiency limit, the target energy efficiency limit values, evaluating values of energy conservation and test method. This standard applies to the following at an altitude of 3500m, onshore oil and gas fields and long-distance pipelines used in gas or liquid (oil) as fuel energy, Rated thermal load within the range of 40kW ~ 12000kW oil industry (hereinafter referred to as the furnace) by a heating furnace. This standard does not apply to solid energy as furnace fuel.

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. SY/T 0540 Petroleum Industrial Furnace Types and basic parameters SY/T 6381 Determination of thermal furnace

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Furnace energy efficiency limit minimum allowable values of energy efficiency for heater Under standard test conditions, allowing the furnace efficiency minimum.

3.2 Furnace target energy efficiency limit target minimum allowable values of energy efficiency for heater After the implementation of this standard certain number of years of formal implementation of the furnace energy efficiency limit values.

3.3 Furnace energy conservation evaluation values evaluating values of energy conservation for heater Under standard test conditions, energy efficiency of the furnace should reach a minimum value.

4. Technical Requirements
4.1 Basic requirements General furnace performance, security, performance and design, manufacturing, quality and environmental requirements should conform to relevant standards.

4.2 furnace energy efficiency rating Press SY/T 0540 provisions furnace heat load rated series divided rated furnace heat load range, oven energy efficiency rating Divided into three, including an energy-efficient, the level not less than the furnace efficiency requirements in Table 1. Table 1 furnace energy efficiency rating Rated thermal load P/kW
Furnace Efficiency /% Gas furnace oil furnace Level 1 2 3 1 2 3 P < 200 87 86 80 86 85

79 Table 1 (continued) Rated thermal load P/kW Furnace Efficiency /% Gas furnace oil

furnace Level 1 2 3 1 2 3 200≤P < 500 87 87 82 87 86 81 500≤P < 1000 89 88 84 88 87
83 1000≤P≤1200 90 89 85 89 88 84 1200 ≤P≤1500 90 89 86 89 88 85 1500
≤P≤2000 91 90 87 90 89 86 2000≤P < 2500 91 90 88 90 89 87
2500≤P≤12000 92 91 89 91 90 88

Note. P is the nominal furnace heat load.

4.3 furnace energy efficiency limit Furnace energy efficiency of limited value in Table 1 energy efficiency rating of three.

4.4 Furnace target energy efficiency limit After three years from the date of implementation of this standard, furnace energy efficiency limit value is not less than specified in Table 2.
Table 2 furnace target energy efficiency limit Rated thermal load P/kW Furnace Efficiency /% Gas furnace oil furnace P < 200 83 82 200≤P < 500 85 84 500≤P < 1000 86 85
1000≤P≤1200 87 86 1200 ≤P≤1500 88 87 1500 ≤P≤2000 89 88
2000≤P < 2500 89 88 2500≤P≤12000 90 89

Note. P is the nominal furnace heat load.

4.5 furnace energy conservation evaluation values Furnace energy saving evaluation value table 1 energy efficiency rating of two.

5 Test Methods

Furnace efficiency shall SY/T 6381 method to determine.