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

GB/T 20604-2025

Replacing GB/T 20604-2006

Natural gas - Vocabulary

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(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 20604-2006 Natural Gas Vocabulary. Compared with GB/T 20604-2006, except for structural adjustment and editing, in addition to the changes in performance, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2006 edition);
- b) Added commodity natural gas, saturated gas, compressed natural gas, compressed natural gas for vehicles, biogas, biomethane, biomass, shale gas, Coalbed methane, tight sandstone gas, gas pipelines, trade transfer points, distribution stations, gas transmission stations, underground gas storage, transfer interfaces and pipeline network models 17 terms and definitions are proposed (see 3.1.1.2, 3.1.1.11, 3.1.1.12, 3.1.1.13, 3.1.1.16, 3.1.1.17, 3.1.1.18, 3.1.1.19, 3.1.1.20, 3.1.1.21, 3.1.2.2, 3.1.2.4, 3.1.2.5, 3.1.2.6, 3.1.2.7, 3.1.2.8 and 3.1.2.9);
- c) The term crude natural gas was changed to raw natural gas, the term sour gas was changed to sour natural gas, and their definitions were changed (see 3.1.1.3 and 3.1.1.9, 2.1.1.2 and 2.1.1.8 of the 2006 edition), deleted high-pressure natural gas, low-pressure natural gas, connection point, gas inlet point, and supply point.

Terms and definitions for gas stations and export stations (see 2.1.1.10, 2.1.1.11, 2.1.2.3, 2.1.2.4, 2.1.2.5 and 2.1.2.6 of the 2006 edition) 2.1.2.6);
- d) Added the terms and definitions of lower limit, upper limit and range (see 3.2.1.4, 3.2.1.5 and 3.2.1.6);
- e) Deleted the terms and definitions of inferential measurement, methods of direct measurement of properties, and integral and fractional parts (see 2.2.1.4, 2006 edition).

2.2.1.5 and 2.2.2.9);
- f) Added terms and definitions for sample collector, hot loop, vent pipe, continuous sampling and sampling location (see 3.3.2.4, 3.3.2.8, 3.3.2.9, 3.3.2.11 and 3.3.4.5);
- g) The terms and definitions of transfer duct and bypass pipe have been deleted (see 2.3.2.7 and 2.3.2.9 of the 2006 edition);
- h) Deleted the relevant terms and definitions of metrology (see 2.5.1 of the 2006 edition);
- i) Added measurement instrument adjustment, volume conversion, correction value, correction factor, working range, extended working range, analytical quality control Terms and definitions for calibration function, analysis function and mean normalization (see 3.5.1.2, 3.5.1.3, 3.5.1.4, 3.5.1.5, 3.5.1.7, 3.5.1.8, 3.5.1.13, 3.5.2.4.5, 3.5.2.4.6 and 3.5.2.4.7.2);
- j) The definition of the term "verification" has been changed (see 3.5.1.12, 2.5.2.8 of the 2006 edition);
- k) The terms and definitions of physical measure, transformation, mole, carbonyl sulfide,,

and sulfide have been deleted, and the relevant terms of statistics have been deleted.

Terms and definitions (see 2.5.2.1, 2.5.2.7, 2.5.3.1.3, 2.5.3.3.5, 2.5.3.3.13, 2.5.3.3.14 and 2.5.4 of the 2006 edition);

l) The term "standard reference conditions" was changed to "ISO standard reference conditions" and its definition was changed (see 3.6.1.4, 2006 edition).

2.6.1.4);

m) Added the term and definition of "Wobbe index fluctuation range" (see 3.6.4.4), deleted the term and definition of transition enthalpy and gas group (see 2.6.4.3 and 2.7.3 of the 2006 edition);

n) Added odor perception, odor characteristics, odor intensity, extreme saturation threshold, sensory fatigue, odor addition, detection threshold, odor intensity curve the terms and definitions of line and diluent (see 3.8.3, 3.8.4, 3.8.5, 3.8.6, 3.8.7, 3.8.8, 3.8.9, 3.8.10 and 3.8.11) are deleted.

In addition to the terms and definitions of odorous sulfur compounds and tetrahydrothiophene (see 2.8.3 and 2.8.4 of the 2006 edition);

o) Added terms and definitions related to thermodynamic properties (see 3.9);

p) Added terms and definitions related to natural gas energy (see 3.10).

This document is modified to adopt ISO 14532:2014 Natural Gas Vocabulary.

This document has the following structural adjustments compared to ISO 14532:2014.

--- Added Chapter 2 normative references;

--- Appendix A corresponds to the first two parts of Appendix A of ISO 14532:2014;

--- Appendix B corresponds to A.1 in Appendix A of ISO 14532:2014;

--- Appendix C corresponds to A.2 in Appendix A of ISO 14532:2014.

The technical differences between this document and ISO 14532:2014 and their reasons are as follows.

--- Added "applicable to the detection and measurement of conventional, unconventional natural gas and natural gas substitutes" to the scope (see Chapter 1) to improve Operability;

--- Added commodity natural gas (3.1.1.2), compressed natural gas for vehicles (3.1.1.13), shale gas (3.1.1.19), coalbed methane (3.1.1.20), Dense sandstone gas (3.1.1.21), gas pipeline (3.1.2.2), gas transmission station (3.1.2.6), underground gas storage (3.1.2.7), interface (3.1.2.8), pipe network simulation (3.1.2.9), sample collector (3.3.2.4), continuous sampling (3.3.2.11), calibration function (3.5.2.4.5), Analysis function (3.5.2.4.6), Wobbe

index fluctuation range (3.6.4.4), odor intensity curve (3.8.10), diluent (3.8.11), Energy (3.10.1), Energy flow (3.10.2), Energy measurement (3.10.3), Calorific value measurement (3.10.4), Calorific value assignment method (3.10.5), calibration heat value (3.10.6), announcement heat value (3.10.7), representative heat value (3.10.8), billing area (3.10.9), zero the terminology and definitions of floating-point (3.10.10) are provided for the purpose of this document;

--- The definition of the term "dry gas" (see 3.1.1.10, 2.1.19 of ISO 14532:2014) has been changed to adapt to the technical conditions of my country;

--- The definition of the term "verification" (see 3.5.1.12, 2.5.1.12 of ISO 14532:2014) has been changed to adapt to the technical conditions of my country;

--- The definition of the term mass (amount of substance) concentration (see 3.5.2.1.2, 2.5.2.1.2 of ISO 14532:2014) has been changed to adapt Our country's technical conditions.

The following editorial changes were made to this document.

--- Replaced ISO 18453 (see 3.1.1.10) with the informative reference GB/T 22634-2008, and GB/T 5274.1-2018 ISO 6142 was replaced (see 3.5.2.5.2.2, 3.5.2.5.2.4), GB/T 10628-2008 replaced ISO 6143 (see 3.5.2.5.2.3,

--- Added the terms "substitute natural gas", "wet gas" and "ISO standard reference conditions" (see 3.1.1.4, 3.1.1.8 and 3.6.1.4);

The note on the term "series of standards" has been deleted (see 2.5.2.5.1.6 of ISO 14532:2014);

--- Added Note 2 to the term "ISO standard reference conditions" (see 3.6.1.4);

--- Deleted the abbreviations of DMCS, PTFE and THT which did not appear in the text of A.2 of ISO 14532:2014, and added COS, HCDP, PHLC abbreviation;

--- Changed references.

Introduction

The National Natural Gas Standardization Technical Committee (SAC/TC244) is responsible for the following standards. natural gas and natural gas substitutes from production (well the standards cover terminology, quality, measurement methods, sampling, testing and analysis methods from the beginning to the end.

The relevant terms are established for specific purposes, and there are differences in terms and definitions. Therefore, it is necessary to review the terms and definitions used in the above-mentioned natural gas field standards.

Definitions should be harmonized.