ICS 75.040
CCS E21

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 17280-2017

Replacing GB/T 17280-2009

Standard test method for distillation of crude petroleum - 15-theoretical plate column

原油蒸馏标准试验方法 15-理论塔板蒸馏柱

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 17280-2009 "crude oil distillation standard test method 15-theoretical plate distillation column," and GB/T 17280- Compared to.2009, the main technical changes are as follows:

--- Remove the normative references GB/T 2540 and ASTMD4177, an increase of normative references GB/T 27867 (see Chapter 2,.2009 Edition, Chapter 2);

--- Removed "meaning and purpose" (see the.2009 edition of Chapter 5);

--- Increasing the use of devices that are similar to the original standard vacuum gauge (see 5.3.2.1,.2009 Edition 6.3.2);

--- Modify the contents of

12.3.2 Note (see 12.3.2,.2009 edition 14.3.2);

--- Added Chapter 13 "Quality Assurance and Control";

--- Increased n-tetradecane nitrogen content during distillation (see E.3.1.2);

--- Added the possibility to use devices similar to the original standard pressure gauge (see G.1.3, G.3.1.2 and G.3.1.4,.2009 Editions F.1.3, F.3.1.2 and F.3.1.4). This standard by the National Standardization Technical Committee of Oil and Gas (SAC/TC355) and focal point. This standard was drafted unit. Daqing Oilfield Engineering Co., Ltd., Sinopec Petrochemical Research Institute, PetroChina Dalian Petrochemical Company, China Petroleum and Petrochemical Research Institute, China National Petroleum Dushanzi Petrochemical Company. The main drafters of this standard.Song Yiqing, Song Shouguo, Fan Denli, Li Jianhua, Zhou Feng, Dong Yuancheng. This standard replaces the standards previously issued as.

--- GB/T 17280-1998, GB/T 17280-2009. Crude oil distillation standard test method 15-theoretical plate distillation column Warning

--- personnel using this standard should have formal laboratory work experience. This standard does not indicate all possible safety issues question. It is the user's responsibility

to take appropriate safety and health measures and to ensure compliance with the requirements of the relevant state laws and regulations.

1 Scope

GB/T 17280-2017 is the Chinese national standard on standard test method for distillation of crude petroleum - 15-theoretical plate column, in the field of petroleum and related technologies. 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 29 December 2017 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 July 2018. Classification: ICS 75.040, CCS E21. 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 Reid vapor pressure is not greater than 82.7kPa stable crude oil distillation test method. This standard specifies the distillation column using 14 to 18 theoretical plates, distilled at a reflux ratio of 5. 1, eventually reaching constant The mass of the liquefied gas, the distillation fraction and the residue fraction was obtained under the test conditions of a pressure-equivalent cutting temperature (AET) of 400 ° C, and each fraction Mass yield or volumetric yield, followed by a plot of the true boiling point (TBP) distillation curve with the cutting temperature. This standard applies to liquefied petroleum gas, light naphtha and the initial boiling point higher than 400 °C distillate oil mixture outside.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1884 Crude petroleum and liquid petroleum products - Laboratory density method (Densitometer method) (GB/T 1884-2000, eqv ISO 3675.1998)

GB/T 4756 Petroleum liquid hand sampling method (GB/T 4756-2015, ISO 3170.2004, MOD)

GB/T 8929 Determination of crude oil water content distillation (GB/T 8929-2006, ISO 9029.1990, MOD)

GB/T 13377 Determination of the density or relative density of crude oil and liquid or solid petroleum products (capillary pyknometer and graduated double Capillary pyknometer

method) (GB/T 13377-2010, ISO 3838.2004, MOD)

GB/T 27867 oil liquid pipeline automatic sampling method (GB/T 27867-2011,

ISO 3171.1988, IDT) SH/T 0604 Crude petroleum and petroleum products densitometry (U-tube method) (SH/T 0604-2000, eqv ISO 12185.1996)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Adiabaticity The entire distillation column has no significant increase in heat or loss of heat. When the distillation column heat loss occurs, the column back reflux than stigma Flow abnormally increased. The column insulation sleeve overheating, the situation is the opposite.

3.2 Steamed rate boiluprate The amount of steam entering the distillation column per unit of time.

3.3 Crude debutanizationofcrudepetroleum Light hydrocarbons (including n-butane) before n-butane in crude oil are removed, leaving heavier hydrocarbons. In practice, crude oil is butane is meant to be present More than 95% of C2-C4 and less than 5% of C5 hydrocarbons in the original sample are collected in the cold trap.