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

GB/T 26978.3-2011

**Design and manufacture of site built, vertical, cylindrical,
flat-bottomed steel tanks for the storage of liquefied natural
gases -- Part 3: Concrete components**

(English Translation)

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Foreword

GB/T 26978 "on-site assembly of vertical cylindrical flat steel LNG storage tank design and construction" is divided into the following five sections.

- Part 1. General;
- Part 2. metal member;
- Part 3. Concrete components;
- Part 4. heat insulating member;
- Part 5. Testing, drying, replacement and cooling.

This section GB/T 26978-2011 Part 3.

This section drafted in accordance with GB/T 1.1-2009 given rules.

The partial modification using EN14620-3:2006 "on-site assembly of steel vertical cylindrical flat operating temperature is between 0 °C ~ -165 °C of Refrigerated liquefied gas storage tank design and construction - Part 3. Concrete components "(in English).

The main differences are as follows.

Retains the LNG-related content, delete and LPG, ethylene, ethane and similar hydrocarbons and liquid ammonia, liquid Oxygen, liquid nitrogen and liquid argon storage and other related content.

Added "Appendix NA (informative), which gives a list of the technical differences and the reasons for reference.

For ease of use, this section to legal units of measurement-based, non-statutory standard unit of measurement corresponding value in subsequent brackets.

This part of the Annex A, Annex B, Appendix NA informative appendices.

This part of the National Standardization Technical Committee on Petroleum and Natural Gas LNG Technical Committee (SAC/TC355/SC1) centralized.

This section is responsible for drafting unit. CNOOC Gas & Power Group Co., Ltd., China Petrochemical Corporation Zhongyuan Petroleum Exploration Bureau of Investigation and Design Institute Study hospital.

This section participated in the drafting unit. China National Petroleum Corporation Tangshan LNG project manager, China Chengda Engineering Company, China Petroleum Pipeline Engineering Co., Ltd., China Petroleum and Natural Gas and Pipeline Company.

1 Scope

This section of concrete LNG storage tank component materials, design, construction of the general requirements to make provision.

This section applies to on-site assembly of a vertical, cylindrical, flat, steel, liquefied natural gas operating temperature between 0 °C ~ -165 °C between Tank design and construction.

2 Normative references

The following documents for the application of this document is essential, dated references, only the dated version suitable for use herein Member. For cited documents without a date. The latest version (including any amendments) applies to this document.

GB/T 26978.1-2011 site assembly vertical cylindrical flat steel LNG storage tank design and construction - Part 1. General GB/T 26978.2-2011 site design and construction of a vertical cylinder assembly of flat steel LNG storage tank - Part 2. Metal member EN206-1 concrete - Part 1. technical requirements, performance, production and standards compliance (Concrete-Part 1.

Specification, performance, productionandconformity) EN1992-1-1:2004 European standard 2. design of concrete structures - Part 1-1. General and building regulations (Eurocode 2. designofconcretestructures-Part 1-1. GeneralrulesandrulesforBuildings) EN1992-1-2:2004 European standard 2. design of concrete structures - Part 1-2. General -

Structural fire design --- (Eurocode 2. design of concrete structures-Part 1-2.
General rules-Structural fire design)

3 Terms and Definitions

GB/T 26978.1-2011 established in the following terms and definitions apply to this document.

Low low temperature

The temperature of less than -20 °C.

4 Overview

For general reinforced concrete and/or material selection and design of prestressed concrete structures, performance standards EN1992-1-1.

5 Air tightness

To ensure that the outer tank (for example, full containment tank) air tightness, use a metal liner or a polymer coating.