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**SH**

**TRADE STANDARD OF PETROCHEMICAL  
ENGINEERING IN THE PEOPLE'S REPUBLIC OF CHINA**

**SH/T 3040-2002  
Replace SH 3040-1991**

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**石油化工管道伴管及夹套管设计规范**  
**Design Specification of Tracing Piping and Jacket Piping for**  
**Petrochemical Industry**

**Issued on Feb 09, 2003**

**Implemented on May 01, 2003**

**Issued by the State Economic and Trade Commission of the People's Republic of  
China**

**Notice of Promulgation for Economic and Trade  
Committee of the People's Republic of China  
No. 10, 2003**

**Promulgation of 19 items of trade standards of petrochemical  
engineering**

The national economic and trade committee has approved 19 items of trade standards of petrochemical engineering, in them there are 18 recommendatory standards and 1 compulsory standard, they were promulgated now. "Code for design of general plan of petrochemical enterprises" has been implemented from Mar. 1, 2003; other standards will be implemented from May 1, 2003.

All standards were published by China Petrochemical Press.

Appendix: the names and serial numbers of 19 items of the petrochemical trade standards

Feb. 9, 2003

Economic and Trade Committee of the People's Republic of China

**Appendix:****Names and serial numbers of 19 items of the petrochemical trade standards**

No.	Name of standard	Number of standard	Number of substituted standard
<b>I Recommendatory Standards</b>			
1	Code for design of general plan in petrochemical enterprises	SH/T 3032-2002	SH 3032-1992
2	Code for design of piping flexibility for petrochemical engineering	SH/T 3041-2002	SH 3041-1991
3	General plot plan design code of petrochemical enterprises	SH/T 3053-2002	SH 3053-1993
4	Standard for a-seismic qualification of petrochemical buildings	SH/T 3130-2002	-
5	Standard for a-seismic qualification of electrical equipment in petrochemical engineering	SH/T 3131-2002	-
6	Graphic display of actuality diagram in petrochemical enterprises	SH/T 3133-2002	-
7	Code for construction and acceptance of concrete water tanks in petrochemical engineering	SH/T 3535-2002	-
8	Code for hall up construction of petrochemical engineering	SH/T 3536-2002	-
9	Code for design of pump house in storage and transportation system for petrochemical enterprises	SH/T 3014-2002	SH 3014-1990
10	Calculation of pipe thickness of oil refinery heater	SH/T 3037-2002	SH/T 3037-1991
11	Code for design of traced piping and jacked piping for petrochemical engineering	SH/T 3040-2002	SH 3040-1991
12	General fire heater in the oil refinery equipment using ceramic fiber lining	SH/T 3128-2002	-
13	Material selection guideline for design of major equipments in key units processing crude oils	SH/T 3129-2002	-
14	Code for design of reinforced concrete water tanks in petrochemical engineering	SH/T 3132-2002	-
15	Technical code for filling stations using pry-type filling equipments	SH/T 3134-2002	-
16	Technical specification for construction of centrifuged compressor trains in ethane plants	SH/T 3519-2002	SH/T 3519-1991
17	Technical standard for construction spherical of storage tank engineering	SH/T 3512-2002	SH/T 3512-1990
18	Technical specifications for construction of vertical cylindrical low temperature storage tanks	SH/T 3537-2002	-
<b>II Compel lent Standard</b>			
19	Code for construction and acceptance of toxic, combustible media pipe engineering combustible media pipe engineering	SH 3501-2002	SH 3501-2001

**NOTICE**

This code is written in Chinese and English. The Chinese text shall be taken as the ruling one in the event of any inconsistency between the Chinese text and the English text.

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## Foreword

This Specification was revised by Shanghai Jinshan Petrochemical Industry Design Institute on the basis of the original Design Specification of Steam Tracing Piping and Jacket Piping SHJ 40-91 according to the notice of Sinopec (2001) Building Standard Document No. 088.

This Specification consists of 5 chapters, in which the main contents are:

1. The specification name was changed to Design Specification of Tracing Piping and Jacket Piping for Petrochemical Industry;
2. Amended and supplemented the contents of the original specification;
3. Increased design specification of hot water tracing piping;
4. Increased related contents required by installation of tracing piping and jacket piping.

During revising, we made wide investigation in view of the problems that exist in the original specification, generalized practical experience on design and using of hot water tracing piping and steam jacket piping for petrochemical industry in recent years, solicited suggestions related to design, construction and production, etc., made many discussions about main problems in the original specification and finalized this Specification after examination and approval.

The users of this Specification are kindly required to send any suggestion and relevant information to editing unit (Address: No.7 Jinyidonglu, Jinshan District, Shanghai Post code 200540).

If find any place needs to be amended and supplemented during implementation of this Specification.

Chief editorial unit: Shanghai Jinshan Petrochemical Design Institute

Participating editorial units: Sinopec Engineering Construction Company

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# **Design Specification of Tracing Piping and Jacket Piping for Petrochemical Industry**

## **1 Scope**

This Specification defines design and installation requirements for steam and hot water tracing piping and steam jacket piping for petrochemical industry process piping.

This Specification applies to design of steam and hot water external tracing piping and steam jacket piping for new process piping of petrochemical industry. Design of expansion and reconstruction can be executed referring to this Specification, design of tracing piping and jacket piping for equipment and instrument, design of other medium tracing piping and jacket piping also can be executed referring to it.

## **2 Normative References**

The clauses in the following documents shall become the clauses of this Specification through quotation. For quoted documents with date, all subsequent amendments (excluding contents of correction) or revised edition of them shall not apply to this Specification. However, the parties reached agreement according to this Specification are encouraged to study the possibility of using the latest edition of these documents. The latest edition of all undated quoted documents applies to this Specification.

GB 50235 Construction & Acceptance Specification of Industrial Metal Piping Work

SH 3041 Design Specification of Piping Flexibility for Petrochemical Industry

SH 3501 Construction & Acceptance Specification of Virulent, Combustible Medium Piping for Petrochemical Industry

## **3 Terms and Symbols**

### **3.1 Terms**

#### **3.1.1 Tracing piping**

External tracing piping

#### **3.1.2 Jacket piping**

Jacket piping includes sleeve pipe and internal pipe

#### **3.1.3 Economical thickness**

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