

NATIONAL STANDARD OF
THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家标准

Code for Design of Chimneys

烟囱设计规范

GB 50051-2002

Chief Editorial Department: Ministry of Construction of the People's Republic of China

Approving Department: Ministry of Construction of the People's Republic of China

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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.

**Notice by Ministry of Construction of the People's Republic
of China**

No. 101

**Notice on Promulgation of the national standard "Code for Design of
Chimneys".**

Hence "Code for Design of Chimneys" has been approved as the national standard with a serial number of GB50051--2002, which shall come into force upon May 1st, 2003. Herein, Clauses 3.1.1, 3.1.3, 3.2.2, 4.1.6, 5.2.1, 5.6.1, 5.6.2, 6.6.10, 7.1.1, 7.1.2, 8.1.4, 9.3.3, 11.6.7, 11.6.8, 11.6.12, 11.6.13 and 13.1.1 are mandatory clauses, which must be forced strictly. At the same time, the former "Code for Design of Chimneys" GBJ51—83 and its mandatory clauses are superseded.

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Ministry of Construction of the People's Republic of China

January 10, 2003

Preface

According to the requirement of relevant documents and Document [(99)JBJBZNo.20] issued by Norm and Ration Department of the Ministry of Construction of PRC, Baotou Engineering Research Institute of Iron and Steel jointly with other participating editorial units have revised thoroughly the "Code for Design of Chimneys" GBJ51—83 that was approved by State Planning Committee in 1983.

During the course of revision, the editorial group has carried out special theoretical research and laboratorial research, investigated and analyzed extensively; has carefully summarized the recent experience and scientific research achievements in the field of chimneys design both at home and abroad, and has extensively collected the comments from the units concerned all over China in various manners; and has finalized this version through repeatedly discussion, modification and trial design.

This Code consists of 13 chapters and 3 appendixes, in which the main contents involved in this revision include:

1. The former design method of limit state indicated by basic safety coefficient is replaced by the design method of approximate probability limit state of load itemized coefficient, combination coefficient and material itemized coefficient.
2. For the reinforced concrete chimney, the calculation formulas for reinforcement distribution at both sides of shell and two openings are added.
3. The contents concerning tube-in-tube chimney, multi-flue chimney, steel chimney and flue are added.
4. The contents concerning corrosion protection for chimneys and aviation warning lamp.
5. The calculation formulas for across-wind sympathetic vibration, underground temperature field, vertical earthquake action and heating temperature of ring-wall method are added.

Those clauses in block are mandatory clauses, which must be forced strictly. The Ministry of Construction will be responsible for the management and explanation on the mandatory clauses. Baotou Engineering Research Institute of Iron and Steel will be responsible for the explanation on the detailed technical contents. The users of this Code are kindly required to summarize experience based on project practice, and send any suggestion or comment regarding to necessary modification or supplementation to National Standard "Code for Design of Chimneys" Management Team of Baotou Engineering Research Institute of Iron and Steel (Baotou City, Mail Box No. 130; Post Code: 014010, Fax: 0472-2128941, Email: beris@public.hh.nm.cn).

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1 General

1.0.1 This code is drawn up for attaining an object in designing chimneys which are advanced in technique, reasonable in cost, suitable in use and ensured in quality.

1.0.2 This code applies to brick chimneys, reinforced concrete chimneys, steel chimneys, tube-in-tube chimneys, multi-flue chimneys, chimney foundation and flue design.

1.0.3 This code is prepared according to the principle of national standard "unified standard of building structure reliability design" (GB500068) and national standard "Standard of building structure design terms and symbols" (GB/T50083).

1.0.4 Besides complying with this Code, the design of chimney shall also comply with other current national mandatory standards.

1.0.5 The designed basic period of this Code is 50 years.



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