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National Standard of the People's Republic of China

中华人民共和国国家标准

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GB 50169-2006

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**Code for construction and acceptance of  
grounding connection electric equipment  
installation engineering**

**电气装置安装工程  
接地装置施工及验收规范**

Issued on: June 20, 2006

Implemented on: November 1, 2006

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Ministry of Construction of the People's Republic of China  
Jointly issued by: General Administration of Quality Supervision, Inspection and  
Quarantine of the People's Republic of China

NATIONAL STANDARD  
OF THE PEOPLE'S REPUBLIC OF CHINA  
中华人民共和国国家标准

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**GB 50169-2006**

Chief Development Department: China Electric Power Enterprises Union  
Approving Department: Ministry of Construction of the People's Republic of China  
Implementation date: November 1, 2006

2006 Beijing

# **Announcement of Ministry of Construction of the People's**

## **Republic of China**

**No. 467**

Notice of promulgation national standard Code for Construction and  
Acceptance of Grounding Connection Electric Equipment Installation

Engineering by Ministry of Construction

Now we approve Code for Construction and Acceptance of Grounding Connection Electric Equipment Installation Engineering as national standard which number shall be GB 50169-2006 and be implemented from November 1 of 2006. In this Code, clauses 3.1.1, 3.1.3(1,3), 3.1.4, 3.2.4, 3.2.5, 3.2.9, 3.3.1, 3.3.3, 3.3.4, 3.3.5, 3.3.11, 3.3.12, 3.3.13, 3.3.14, 3.3.15, 3.3.16, 3.3.19, 3.4.1, 3.4.2, 3.4.3, 3.4.8, 3.5.1, 3.5.2, 3.5.3, 3.5.5, 3.6.1, 3.6.2, 3.7.10, 3.7.11, 3.8.3, 3.8.8, 3.8.9, 3.8.10, 3.8.11, 3.9.1, 3.9.4, 3.10.2, 3.10.3, 3.11.3 shall be mandatory and must be executed strictly. The original Code for Construction and Acceptance of Grounding Connection Electric Equipment Installation Engineering GB 50169-92 shall be abolished at the same time.

This Code was published by China Planning Publishing House, which organized by Standards and Norms Research Institute of Ministry of Construction.

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

**July 20, 2006**

## **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

## Foreword

This Code was revised by State Power Network Beijing Power Construction Institute together with associated unit on the basis of the original Code for Construction and Acceptance of Grounding Connection Electric Equipment Installation Engineering GB 50169-92 according to requirements in the notice of Printing and Issuing Laying down, Revising Plan of Engineering Construction National Standard in 2001~2002 (Building Standard [2002] No. 85).

This Code consists of 4 chapters, in which the main contents are: general; terms and definitions; grounding of electric equipment; engineering acceptance for hand over.

1. Terms and definitions;
2. Grounding of transmission line pole tower;
3. Grounding of control building, communication station and microwave station secondary system;
4. Grounding of metal protective layer of power cable termination;
5. Grounding of power distribution electric equipment;
6. Grounding of electric equipment of buildings.

Clause in bold type in this Code is mandatory and must be executed strictly.

Ministry of Construction shall be responsible for supervision and interpretation of mandatory clauses of this Code. State Power Network Beijing Power Construction Research Institute shall be responsible for interpretation of specific content.

The users of this Code are kindly required to summarize experience in combination with engineering practice, collect information and send any suggestion and relevant information to State Power Network Power Construction Research Institute (Address: 33# South Binhe Road, Xuanwu District, Beijing, Tel: 010-63424285) if find any place needs to be amended and supplemented during implementation of this Code.

Chief editorial unit, participating editorial unit and major drafter shall be as follows:

**Chief editorial unit:** State Power Network Beijing Power Construction Research Institute

**Participating editorial units:** Guangdong Power Test Research Institution  
Northeast Power Authority 2<sup>nd</sup> Engineering Company  
Hubei Power Construction 1<sup>st</sup> Company  
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# Contents

1	General .....	1
2	Terms and Definitions.....	2
3	Grounding of Electric Equipment.....	4
3.1	General .....	4
3.2	Selection of Grounding Connection .....	5
3.3	Laying of Grounding Connection.....	8
3.4	Connection of Grounding Conductor (Wire).....	10
3.5	Grounding of Lightning Rod (Wire, Strip, Grid).....	12
3.6	Grounding of Portable and Movable Electric Equipment.....	13
3.7	Grounding of Transmission Line Pole Tower .....	13
3.8	Grounding of Secondary System of Control Building, Communication Station and Microwave Station.....	14
3.9	Grounding of Metal Protective Layer of Power Cable Termination.....	16
3.10	Grounding of Power Distribution Electric Equipment .....	16
3.11	Grounding of Electric Equipment of Building.....	16
4	Engineering Acceptance for Hand Over .....	18
	Word Diction of the Standard .....	19

# 1 General

**1.0.1** To ensure construction quality of grounding connection installation engineering, facilitate improvement of engineering construction technology and ensure safe operation of grounding connection, lay down this Code especially.

**1.0.2** This Code applies to construction and acceptance of grounding connection electric equipment installation engineering.

**1.0.3** Installation of grounding connection shall be performed by construction unit according to approved design requirements. Client and supervision unit shall assign person to supervise the installation work.

**1.0.4** Equipment and material used for grounding connection construction shall meet current national standard and with certificates.

**1.0.5** Safety technical measures in construction shall meet requirements in this Code and relevant safety standard.

**1.0.6** Installation of grounding connection shall coordinate with construction of civil work. Carry out intermediate inspection and acceptance record for part to be concealed before covering together with associated unit.

**1.0.7** Connection of various grounding connections and main grounding grid must be reliable. Welding quality of grounding connection shall meet stipulations in Clause 3.4.2 of this Code. Grounding, resistance shall conform to design requirements and connection between expanded grounding grid and the original grounding grid shall be multi-point connection.

**1.0.8** Acceptance testing of grounding connection shall be carried out immediately after completion of civil work; grounding connection in high soil resistivity area shall be taken with corresponding measures according to design requirement and put into operation only after acceptance when the ground resistance fails to meet requirements.

**1.0.9** Construction and acceptance of grounding connection shall meet requirements in current national code and specification besides that in this Code.



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