



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

GB 50057-1994

Replacing GB 50057-1994 (2000)

**Code for design protection of structures against lightning
(English Translation)**

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Table of Contents

General Provisions ...	
2 Terms ...	
3 Classification of Structures to Be Protected Against Lightning ...	
4 Protection Measures for Structures Against Lightning ...	
4.1 Basic Requirement ...	
4.2 Protection Measures for First Class of Structures to be Protected Against Lightning ...	
4.3 Protection Measures for Second Class of Structures to Be Protected Against Lightning ...	
4.4 Protection Measures of Third Class of Structures to Be Protected Against Lightning ...	
4.5 Other Protection Measures Against Lightning ...	
5 Lightning Protection System ...	
5.1 Materials for Lightning Protection System ...	30
5.2 Air-termination System ...	
5.3 Down-conductor System ...	
5.4 Earth-termination System ...	35
6 Protection Against LEMP (Lightning Electromagnetic Impulse) ...	38
6.1 Basic Requirement ...	
6.2 Lightning Protection Zones and Protection Against LEMP ...	
6.3 Requirements for Magnetic Shielding, Earthing and Equipotential Bonding ...	40
6.4 Requirements for Installation and Selection of SPDS (Surge Protective Devices) ...	48
Appendix A Expected Annual Number of Lightning Flash for Structures ...	
Appendix B Structure Parts Suffered Easily by Lightning Stroke ...	
Appendix C Conversion From Power Frequency Earthing Resistance to Earthing Resistance of Earth-termination System ...	
Appendix D Determination of Protected Volume of Air-termination System with Rolling Sphere Method ...	
Appendix E Values of Coefficient k_c ...	
Appendix F Lightning Current ...	
Appendix G Calculation of Induced Voltages and Currents in Loops ...	
Appendix H Cross-section of the Entering Cable Screen ...	

Appendix J Surge Protective Device ...

Explanation of Wording in This Code ...

List of Quoted Standards ...

1 General Provisions

1.0.1 This code is Formulated in order to adopt lightning protection measures by adjusting measures

Foreword

In accordance with the requirements of "Notice on Printing and Publishing 'Development and Revision Plan on Engineering Construction Standards and Codes (Batch 1) in 2005'" (Jian Biao Han [2005] No. 84), this code is revised from "Design Code for Protection of Structures Against Lightning" GB 50057-94 (2000 edition) by China IPPR International Engineering Corporation jointly with the organizations concerned.

In the revision of this code, the code drafting group seek advices by internet and contacting with the organizations and individuals concerned after completing the exposure draft hereof; and finally finalize it upon review after completing the draft for examination on the base of the advice gained.

This code comprises 6 Aapters and 9 Appendixes, and the main contents cover. general provisions, terms, classification of structures to be protected against lightning, protection measures for structures against lightning, protection system, protection against LEMP, etc ..

The following contents are revised in this code.

1. Chapter "Terms" is added;
2. Measures of contact voltage protection and pace voltage protection are changed;
3. The requirements for external lightning protection system adopting different metal objects are added;
4. The provisions for side stroke protection are modified;
5. The requirements for electrical system and electronic system selecting SPD are provided in detail;
6. The annual mean density calculation Formula of lightning stroke to ground is simplified, and the value of predicted lightning stroke times for judging lightning protection classification of structures is adjusted;
7. More specific requirements are made for partial Items.

The provisions printed in bold type are compulsory ones and must be enforced strictly. The Ministry of Housing and Urban-Rural Development is in charge of the administration of this

code and the explanation of the compulsory provisions; China Machinery Industry Federation is responsible for routine management, and China IPPR International Engineering Corporation is responsible for the explanation of specific technical contents. All relevant organizations are kindly requested to sum up and accumulate your experiences in actual practices during the process of implementing this code.

The relevant opinions and advice on modification or supplement, whenever necessary, can be posted or passed on to China IPPR International Engineering Corporation (Address. No.5, W. 3rd Ring Rd North, Haidian District, Beijing 100089, China) for future reference.

Organization Units, Chief Development Organizations, Participating Development Organizations, Chief Drafting Staffs and Chief Examiners of this code.

Organization Units. China Mechanical Industrial Exploration and Design Association Chief Development Organization. China IPPR International Engineering Corporation Contents
General Provisions ... 1

2 Terms ... 2

3 Classification of Structures to Be Protected Against Lightning ... 7

4 Protection Measures for Structures Against Lightning ... 9

4.1 Basic Requirement ... 9

4.2 Protection Measures for First Class of Structures to be Protected Against Lightning ... 9

4.3 Protection Measures for Second Class of Structures to Be Protected Against Lightning ... 17

4.4 Protection Measures of Third Class of Structures to Be Protected Against Lightning ... 23

4.5 Other Protection Measures Against Lightning ... 27

5 Lightning Protection System ... 30

5.1

Materials for Lightning Protection System ... 30

5.2

Air-termination System ... 31

5.3

Down-conductor System ... 34

6 Protection Against LEMP (Lightning Electromagnetic Impulse) ...38

6.1

Basic Requirement ... 38

6.2

Lightning Protection Zones and Protection Against LEMP ... 38

6.4 Requirements for Installation and Selection of SPDS (Surge Protective Devices) ...48

Appendix A Expected Annual Number of Lightning Flash for Structures ... 51

Appendix B Structure Parts Suffered Easily by Lightning Stroke ... 54

Appendix C Conversion From Power Frequency Earthing Resistance to Earthing Resistance of

Earth-termination System ... 55 Appendix D Determination of Protected Volume of Air-termination System with Rolling Sphere Method ... 57 Appendix E Values of Coefficient k_c ... 67 Appendix F Lightning Current ... 69 Appendix G Calculation of Induced Voltages and Currents in Loops ... 71 Appendix H Cross-section of the Entering Cable Screen ... 73 Appendix J Surge Protective Device ... 75 Explanation of Wording in This Code ... 82 List of Quoted Standards ... 83

1 General Provisions

1.0.1 This code is Formulated in order to adopt lightning protection measures by adjusting measures to local conditions for lightning protection design of structures (including construction), prevent or reduce personal injury, cultural relics and property loss arising from lightning stroke of structures, as well as damage or error operation of electrical and electronic systems triggered by lightning electromagnetic impulse, and thereby achieving safety and reliability, advanced technology, and economy and rationality.

1.0.2 This code is applicable to the lightning protection design of newly-built, extended and rebuilt structures.

1.0.3 For the purpose of the lightning protection design of structures, the type of lightning protection system and its layout shall be researched in detail and determined based on earnestly investigating geography, geology, soil, weather, environment conditions and lightning activity rules as well as characteristics of protected objects.

1.0.4 In addition to this code, the lightning protection design of structures shall also comply with those specified in the national current relevant standards of the state.

2 Terms