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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 50588-2010

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**Code for design of waste heat power generation  
in cement plant**  
**水泥工厂余热发电设计规范**

**Issued on May 31, 2010**

**Implemented on December 01, 2010**

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| <b>Issued by</b> | <b>Ministry of Housing and Urban-Rural Development of the<br/>People's Republic of China</b>                          |
|                  | <b>General Administration of Quality Supervision, Inspection<br/>and Quarantine of the People's Republic of China</b> |

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**National Standard of the People's Republic of China**  
Code for design of waste heat power generation in cement plant  
**GB 50588-2010**

Chief Editorial Department: National Building Materials Industry Standard Rating Station

Approved by: Ministry of Housing and Urban-Rural Development of the People's Republic  
of China

Implemented on: December 1, 2010

China Planning Press  
**Beijing, 2010**

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**Announcement of Ministry of Housing and Urban-Rural Development of  
the People's Republic of China**

**No. 638**

**Announcement on issuance of National Standard *Code for Design of  
Waste Heat Power Generation in Cement Plant***

Now approve *Code for Design of Waste Heat Power Generation in Cement Plant* as national standard, of which number is GB 50588-2010 and was implemented on December 1, 2010. Among them, Article (Clause) 5.3.1 (2), 7.1.1, 8.3.4, 14.0.8 (2), 15.2.4, 15.2.6 and 15.2.8 are mandatory requirements and must be performed strictly.

The Code is organized by Standard Rating Research Institute of our department and published and distributed by China Planning Press.

**Ministry of Housing and Urban-Rural Development of the People's Republic of China**

**May 31, 2010**

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## Foreword

The Code, according to the requirements of the *Notice on Issuing of 〈Formulation and Revision Plan of Code for 2007 Project Construction Standards〉 (the Second Batch)* (JB [2007] No.126), was jointly prepared and completed by the chief editorial unit in conjunction with other relevant units.

The Code consists of 16 Chapters and 1 Annex, whose main technical content includes: General requirements; Terms; Basic requirements; Confirmation of waste heat resource, thermodynamic system and installed capacity; General layout; Main power building; Waste heat boiler and system; Turbine equipment and system; Water supply and drainage system and its facility; Water treatment equipment and system; Electric power system; Electrical equipment and system; Thermal engineering automation; Heating and ventilation; Building structure; Ancillary and auxiliary facility; and others.

The articles in bold-face marked in the Code are the mandatory articles, which shall be performed strictly. The Code is administrated by Ministry of Housing and Urban-Rural Development that is responsible for interpretation of the mandatory articles, the National Building Materials Industry Standard Rating Station is responsible for daily management, and the Sinoma Energy Conservation Ltd. is responsible for the interpretation of the specific technical contents. During the execution, all units shall seriously sum up experience in combination with the engineering practice, if find the contents need to be modified or supplemented, please send the opinions and suggestions to Sinoma Energy Conservation Ltd. (Address: 20<sup>th</sup> Floor, Building C, Beichen Tower, No. 1 of Longzhou Road, Beichen District, Tianjin; Post code: 300410; Website: [www.Sinoma-EC.cn](http://www.Sinoma-EC.cn)) for reference in future revision.

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**Participated units:** Tianjin Cement Industry Design & Research Institute Co., Ltd.

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## Contents

|      |  |    |
|------|--|----|
| 1    | General requirements .....   | 8  |
| 2    | Terms .....  | 9  |
| 3    | Basic requirement .....  | 11 |
| 4    | Confirmation of waste heat resource, thermodynamic system and installed capacity<br>13             |    |
| 4.1  | Confirmation of waste heat resource .....  | 13 |
| 4.2  | Thermodynamic circulation system and installation proposal .....                                   | 13 |
| 5    | General layout .....   | 14 |
| 5.1  | General requirement .....  | 14 |
| 5.2  | Layout of main buildings and structures .....  | 15 |
| 5.3  | Road of power plant .....  | 15 |
| 5.4  | Pipeline arrangement .....   | 16 |
| 6    | Main power building .....  | 18 |
| 6.1  | General requirement .....  | 18 |
| 6.2  | Layout of main workshop building .....   | 18 |
| 6.3  | Maintenance facility .....   | 19 |
| 6.4  | Comprehensive facility .....   | 19 |
| 7    | Waste heat boiler and system .....   | 21 |
| 7.1  | General regulation .....   | 21 |
| 7.2  | Waste heat boiler equipment .....  | 21 |
| 7.3  | The connection of waste heat boiler and cement production line .....                               | 21 |
| 8    | Turbine equipment and system .....   | 23 |
| 8.1  | General regulation .....   | 23 |
| 8.2  | Water supply system and feed water pump .....  | 23 |
| 8.3  | Deaerator and feed-tank .....  | 24 |
| 8.4  | Condensing water system and condensate pump .....  | 24 |
| 8.5  | Steam condenser and its auxiliary equipment .....  | 25 |
| 9    | Water supply and drainage system and its facility .....  | 26 |
| 9.1  | General regulation .....   | 26 |
| 9.2  | Water supply system .....  | 26 |
| 9.3  | Cooling structure and water circulating pump .....   | 27 |
| 10   | Water treatment equipment and system .....   | 28 |
| 10.1 | Pretreatment of raw water & circulating water cooling treatment .....                              | 28 |
| 10.2 | Boiler feed water treatment .....  | 28 |
| 10.3 | Water supply, boiler water tuning treatment and thermodynamic system steam<br>water sampling ..... | 29 |
| 11   | Electric power system .....  | 30 |
| 12   | Electrical equipment and system .....  | 32 |
| 12.1 | Bus configurations .....   | 32 |
| 12.2 | Power self-consumption system .....  | 32 |
| 12.3 | Layout of central control room and electrical room of self-consumption system<br>33                |    |
| 12.4 | DC supply .....  | 34 |

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|         |   |    |
|---------|---|----|
| 12.5    | Requirements on electrical measurement meter, relay protection devices....  | 34 |
| 13      | Thermal engineering automation .....  | 36 |
| 13.1    | General regulation.....   | 36 |
| 13.2    | Control mode.....   | 36 |
| 13.3    | Thermal engineering inspection and automatic adjustment .....   | 37 |
| 13.4    | Interlock.....  | 37 |
| 13.5    | Power supply.....   | 38 |
| 14      | Heating and ventilation .....   | 39 |
| 15      | Building structure.....   | 41 |
| 15.1    | General regulation.....   | 41 |
| 15.2    | Fire-fighting, explosion prevention and safe evacuation .....   | 42 |
| 15.3    | Design of building and structure .....  | 44 |
| 16      | Ancillary and auxiliary facility.....   | 45 |
| Annex A | The fire hazard class, fire rating and minimum prevention distance in waste heat generation and each building (structure) of cement production line ..... | 46 |
|         | Explanation of wording in this code   |    |
|         | List of quoted standards  |    |
|         | Addition: Explanation of provisions   |    |

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## **1 General requirements**

**1.0.1** The Code is hereby formulated to implement the fundamental policy of comprehensive utilization of national energy, and achieve security and reliability, advanced technology, reduced energy consumption and investment conservation in the design of waste heat power generation engineering in cement plant.

**1.0.2** The Code applies to engineering design of new construction, reconstruction, expansion of new dry cement production line waste heat power generation.

**1.0.3** For the waste heat power generation engineering of newly constructed or expanded cement plant, or the waste heat power generation system added in the transformation of the existing cement production lines, the basic design principle shall comply with the national industrial policies and relevant requirements of current national standards GB50295 *Code for Design of Cement Plant* and GB50443 *Code for Design of Energy Conservation of Cement Plant*.

**1.0.4** When the design content of waste heat power generation engineering includes cogeneration or setting up afterburning boiler, the relevant part shall comply with relevant requirements of current national standard GB50049 *Code for Design of Minitype Thermal Power Plant*.

**1.0.5** The design of environmental protection and occupational safety and health for the waste heat power generation engineering in cement plant must perform the requirements of current relevant national standards, laws and regulations.

**1.0.6** In addition to complying with the Code, the design of the waste heat power generation engineering shall also comply with, the relevant requirements of the current national standard.





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