

ICS 27.140
CCS P 59

DL

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

DL/T 5788-2019

Hydraulic construction concrete construction specification

水工变态混凝土施工规范

(English Translation)

Issued on: June 4, 2019

Implemented on: October 1, 2019

Issued by: National Energy Administration

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1 General

1.0.1 In order to standardize the construction of abnormal concrete in hydropower and water conservancy projects and improve the quality of construction, this code is specially formulated.

1.0.2 This code is applicable to hydropower and water conservancy RCC projects.

1.0.3 New technologies, new processes, new materials, new equipment, etc., tested in engineering practice can be applied to abnormal concrete construction.

1.0.4 The construction of abnormal concrete shall not only comply with this code but also comply with the current national and industry standards.

2 Material

2.0.1 The raw materials used in the roller compacted concrete before adding grout shall meet the requirements of DL/T 5112.

2.0.2 The cement, admixtures, mixing water and other raw materials used in abnormal concrete mortar should be consistent with the roller compacted concrete in the corresponding part.

2.0.3 The transportation and storage site of abnormal concrete raw materials shall comply with DL/T 5112.

2.0.4 The cement and admixtures used in abnormal concrete mortar should be stored separately according to the type and the date of entry, and the principle of first-come-first-served

Foreword

This specification is based on the "Notice of the National Energy Administration on Issuing the First Batch of Industry Standard System (Revision) Plans in the Energy Field in 2014" (National Energy Science Technology [2014] No. 298) requirements.

During the compilation of this code, the compilation team conducted extensive investigations and summarized the practical experience of construction technology for abnormal concrete projects in my country in recent years.

On this basis, the opinions of relevant units have been extensively solicited in various ways, and the main issues have been discussed and researched repeatedly.

Finalized.

According to the requirements of the "Provisions for the Compilation of Engineering Construction Standards" (Jianbiao [2008] No. 182), this specification is divided into 6 chapters. The main technical contents include.

Material and mortar mix ratio, abnormal concrete construction, quality inspection.

This specification was proposed by the China Electricity Council.

This specification is under the jurisdiction of the Hydropower Construction Standardization Technical Committee of the Electric Power Industry.

Editor-in-chief of this code. China Water Resources and Hydropower Seventh Engineering Bureau Co., Ltd.

Participating unit of this specification. Datang Guanyinyan Hydropower Development Co., Ltd.

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The cement, admixtures,, mixing water and other raw materials used in abnormal concrete mortar should be consistent with the roller compacted concrete in the corresponding part.

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The transportation and storage site of abnormal concrete raw materials shall comply with DL/T 5112.

2.0.4

The cement and admixtures used in abnormal concrete mortar should be stored separately according to the type and the date of entry, and the principle of first-come-first-served it should be ventilated and dry. The storage period of qualified admixtures exceeds six months and should be re-inspected before use. The admixture should be stirred evenly when using it.

Prepare a solution of designed concentration and store it in a container to avoid contamination. The storage and transportation of bagged cement exceeds 3 months, and the storage and transportation of bulk cement exceeds 6 months.

Re-check before use. It is strictly forbidden to use cement and admixtures that exceed the shelf life and agglomerate.

3 Mixing ratio of mortar

3.0.1

The water-binder ratio of the mortar used in abnormal concrete should not be greater than the water-binder ratio of the roller compacted concrete at the corresponding part; the

amount of admixtures used should not be greater than the mixing amount of the admixture in the corresponding part of the roller compacted concrete; the mortar should not be mixed with air-entraining agent, and the mixing amount of other admixtures used should be in accordance with the corresponding content of admixtures in the roller compacted concrete is the same in all parts.

3.0.2

The amount of mortar for abnormal concrete should be 4%-8% of the volume of RCC.

3.0.3

During the construction process, if the variety or source of raw materials needs to be changed, the mix ratio should be adjusted through experiments.

4.1 General rules

4.1.1

The construction of abnormal concrete should adopt centralized slurry making method, and the following methods can be used for construction on site.

- 1 Manual grout adding and vibrating construction;
- 2 Portable grouting equipment grouting manual vibrating construction;
- 3 Construction of mechanical equipment integrating mortar grouting and vibrating;
- 4 When other methods are used for the construction of abnormal concrete, it shall be verified by experiments.

4.1.2

The abnormal concrete should be constructed simultaneously with the roller compacted concrete.

4.1.3

The treatment of abnormal concrete layer, joint surface, maintenance and special season construction shall meet the requirements of DL/T 5112.

4.2 Construction preparation

4.2.1

Before construction of abnormal concrete, site tests should be conducted to verify the adaptability of mix ratio, construction technology and site construction equipment, and determine the construction Process technology and parameters.

4.2.2

The design of the surface of the roller compacted concrete warehouse shall include the