ICS 27.140
CCS P 59

NB

ENERGY INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

NB/T 10132-2019

Replacing DL/T 5184-2004

Regulation on content and depth of communication design for hydropower projects

水电工程 通信设计内容和深度规定

Issued on: June 4, 2019 **Implemented on: October 1, 2019**

Issued by: National Energy Administration of the PRC

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Foreword

This document was issued on 4 June 2019 by the National Energy Administration of the PRC and takes effect on 1 October 2019.

It is a NB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 27.140, Chinese classification P 59.

It replaces DL/T 5184-2004, which is superseded.

This Regulation has been revised in accordance with the requirements of the Notice of the National Energy Administration on Issuing the Second Batch of the 2014 Plan for the Preparation and Revision of Industry Standards in the Energy Field, reference Guo Neng Ke Ji [2015] No. 12.

In preparing the revision the drafting group carried out extensive investigation and research, carefully summarised practical experience, and worked on the basis of opinions solicited widely from the industry.

The main technical content of this Regulation comprises the content and depth of the pre-feasibility study stage, the content and depth of the feasibility study stage, the content and depth of the tender design stage, the content and depth of the detail design stage, the content and depth of specific communication system design, and the content and depth of specific communication mode design.

The main revisions made to the previous edition are set out in the three items that follow.

First revision: a new chapter entitled Content and Depth of Specific Communication System Design has been added.

Second revision: the content dealing with communication for the automatic hydrological data acquisition and transmission system has been incorporated into the chapter Content and Depth of Specific Communication System Design.

Third revision: a new section on satellite communication has been added to the chapter Content and Depth of Specific Communication Mode Design.

This Regulation is administered by the National Energy Administration. It is proposed by, and its day-to-day administration is the responsibility of, the China Renewable Energy Engineering Institute.

The Standardization Technical Committee for Hydropower Electrical Design of the Energy Industry is responsible for the interpretation of the specific technical content of this Regulation.

Users are invited to send comments and suggestions arising during implementation to the China Renewable Energy Engineering Institute, at No. 2 Liupukang Beixiaojie, Xicheng District, Beijing, postal code 100120.

The chief editing organisation of this Regulation is PowerChina Northwest Engineering Corporation Limited.

The chief drafters of this Regulation are Zhang Guoqiang, Wang Jia, Feng Rui, Wang Jun, Yang Zhenying and Wang Han.

The chief reviewers of this Regulation are Yu Qinggui, Fang Hui, Chen Yinqi, Kang Benxian, Zhou Caiquan, Liu Jianrong, Peng Yunhui and Tao Yi.

The list of reviewers continues with Sun Hua, Liu Xiyi, Yang Yunfeng, Li Quansheng, Guo Dong, Lin Quansheng, Dong Qiang, Piao Cen and Du Gang.

Publication Data

NB/T 10132-2019 is an energy industry standard of the People's Republic of China, issued under the classification mark P and the industry designation NB. The cover carries the international classification number ICS 27.140 and the Chinese standard classification code P 59, both of which place the document within the field of hydraulic engineering and hydropower plant engineering.

The full Chinese title printed on the cover is Shuidian Gongcheng Tongxin Sheji Neirong he Shendu Guiding, rendered on the same cover in the official English wording Regulation on Content and Depth of Communication Design for Hydropower Projects.

The standard was issued on 4 June 2019 and came into force on 1 October 2019. The issuing authority shown at the foot of the cover is the National Energy Administration of the People's Republic of China.

The document replaces DL/T 5184-2004, the earlier power industry regulation on the content and depth of communication design for hydropower projects. The replacement is stated both on the cover and in the catalogue of industry standards attached to the issuing announcement.

The title page names the chief editing department as the China Renewable Energy Engineering Institute, the approving department as the National Energy Administration, and the effective date as 1 October 2019. The place and year of publication are given as Beijing, 2019.

The regulation was promulgated by Announcement No. 4 of 2019 of the National Energy Administration, issued on 4 June 2019.

That announcement was made under the Notice of the National Energy Administration on Issuing the Administrative Measures for Standardization of Industries in the Energy Field (Trial) and its Implementing Rules, reference Guo Neng Ju Ke Ji [2009] No. 52.

By the same announcement the National Energy Administration approved 297 industry standards, headed by the Code for Electrical Design of Photovoltaic Power Projects. Of these, 105 are energy standards carrying the NB designation, 168 are electric power standards carrying the DL designation and 24 are petrochemical standards carrying the NB/SH designation.

In the catalogue of industry standards annexed to the announcement, NB/T 10132-2019

appears as serial number 5, with the replaced standard shown as DL/T 5184-2004, the approval date as 4 June 2019 and the implementation date as 1 October 2019. No adopted international standard reference is recorded for this entry.

Structure of the Document

The regulation is organised in seven chapters, followed by the Explanation of Wording in This Regulation on page 52 and by the Addition: Explanation of Provisions beginning on page 53. The page numbering of the main text runs from page 1 to page 53, while the front matter, comprising the announcement, the foreword and the tables of contents, is numbered in Roman numerals from I to VII.

Chapter 1, General Provisions, occupies page 1 and fixes the purpose and the field of application.

Chapter 2, Content and Depth of Pre-feasibility Study, occupies page 2.

Chapter 3, Content and Depth of Feasibility Study, begins on page 3 and is divided into 3.1 General Requirements and 3.2 Feasibility Study Report, both beginning on page 3.

Chapter 4, Content and Depth of Tender Design, begins on page 5 and is divided into 4.1 General Requirements on page 5, 4.2 Tender Design Report on page 5 and 4.3 Technical Specifications on page 6.

Chapter 5, Content and Depth of Detail Design, begins on page 19 and is divided into 5.1 General Requirements on page 19 and 5.2 Detail Design Drawings for Plant Communication System on page 19.

Chapter 6, Content and Depth of Specific Communication System Design, begins on page 21. This chapter is new in the 2019 edition.

Chapter 6 is divided into 6.1 Communication between Power Plant and Camp on page 21, 6.2 Communication System for Centralized Monitoring and Control of Cascaded Hydropower Plants on page 22, and 6.3 Communication for Automatic Hydrological Data Acquisition and Transmission System on page 23.

Chapter 6 continues with 6.4 Communication System for Construction Period on page 26 and 6.5 River Early-Warning System on page 27.

Chapter 7, Content and Depth of Specific Communication Mode Design, begins on page 30 and is divided into 7.1 Optical Fibre Communication on page 30, 7.2 Satellite Communication on page 36 and 7.3 Digital Microwave Communication on page 42. Section 7.2 is new in the 2019 edition.

The English table of contents printed on pages VI and VII gives the official English wording of every chapter and section heading, and is reproduced word for word in the table of contents of this record.