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NB

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

NB/T 11092-2023

Technical code for deep tunnels of hydropower projects

水电工程深埋隧洞技术规范

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Foreword

This document was issued on 6 February 2023 by the National Energy Administration of the PRC and takes effect on 6 August 2023.

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.

This code has been prepared in accordance with the requirements of the Notice of the General Department of the National Energy Administration on Issuing the 2022 Plan for the Development and Revision of Industry Standards in the Energy Sector and the Plan for the Translation of Foreign Language Versions (Guo Neng Zong Tong Ke Ji [2022] No. 96).

The drafting group carried out extensive investigation and research, conscientiously summarized practical engineering experience, made reference to relevant advanced standards both in China and abroad, and prepared this code on the basis of soliciting opinions widely.

The main technical contents of this code are: general provisions; terms; basic requirements; geological investigation and evaluation; tunnel design; tunnel construction; prevention and treatment of geological risks; operation and maintenance; and digital application.

This code is administered by the National Energy Administration. It was proposed by, and is subject to the routine administration of, the China Renewable Energy Engineering Institute (General Institute of Hydropower and Water Resources Planning and Design).

The Energy Industry Standardization Technical Committee for Hydropower Investigation and Design (NEA/TC15) is responsible for the interpretation of the specific technical contents of this code.

Comments and suggestions arising during the implementation of this code should be addressed to the China Renewable Energy Engineering Institute, No. 2 Liupukang Beixiaojie, Xicheng District, Beijing, postcode 100120.

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Announcement of the National Energy Administration

Announcement of the National Energy Administration, No. 1 of 2023.

In accordance with the Standardization Law of the People's Republic of China and the Measures for the Administration of Energy Standardization, the National Energy Administration approved 168 energy industry standards, headed by the Technical Code for High Voltage Direct Current Protection Testing Equipment (Annex 1).

The same announcement approved 20 foreign language versions of energy industry standards, headed by the Code for Design of Underground Steel Bifurcated Pipe with Crescent Rib of Hydropower Stations (Annex 2).

The announcement further approved one amendment notice to an energy industry standard, Asphalt for Waterproof Materials (Annex 3).

The annexes to the announcement are: 1. Catalogue of industry standards; 2. Catalogue of foreign language versions of industry standards; 3. Amendment notice of industry standards.

The announcement was issued by the National Energy Administration on 6 February 2023.

In the catalogue of industry standards attached to the announcement, this code is listed under serial number 42.

The catalogue entry records the standard number as NB/T 11092-2023 and the standard title as Technical Code for Deep Tunnels of Hydropower Projects.

The column for superseded standards in the catalogue entry is blank, so this code does not replace any earlier standard.

The column for the adopted international standard number is likewise blank, so this code is not an adoption of an international or foreign standard.

The catalogue entry gives the approval date as 6 February 2023 and the implementation date as 6 August 2023.

Approval and Publication Particulars

Full designation: NB/T 11092-2023, Technical Code for Deep Tunnels of Hydropower Projects, an energy industry standard of the People's Republic of China.

The cover classifies the code under ICS 27.140 and Chinese Standard Classification Code P 59, and carries the letter P denoting the engineering construction series.

The cover shows the issue date as 6 February 2023 and the implementation date as 6 August 2023, both under the seal of the National Energy Administration.

The title page names the chief administrative department as the China Renewable Energy Engineering Institute (General Institute of Hydropower and Water Resources Planning and Design).

The title page names the approving department as the National Energy Administration and repeats the date of entry into force as 6 August 2023.

The code was published by China Water and Power Press, Beijing, in 2023.

Publisher address as printed: Building D, No. 1 Yuyuantan South Road, Haidian District, Beijing, postcode 100038.

The printing record states a format of 140 mm by 203 mm, 32-mo format, 4 printed sheets and approximately 108 thousand characters.

The first edition and the first printing are both dated April 2023, with a print run of 1500 copies.

The book number is recorded as 155226-222 and the cover price as 105.00 yuan.

The publisher reserves all rights and states that infringement will be prosecuted; copies with missing, inverted or detached pages are exchanged by its marketing centre.

Scope and Application

The subject of the code is deep tunnels of hydropower projects, that is, tunnels driven under high overburden where depth-related conditions govern investigation, design and construction.

The code addresses the whole life of such a tunnel, from geological investigation and evaluation, through design and construction, to operation and maintenance.

It is an energy industry standard of the recommended type, as indicated by the letter T in the designation NB/T.

It applies within the hydropower sector administered by the National Energy Administration and is interpreted by NEA/TC15.