Chinastandards.org

ICS 71.140
CCS P59

SL

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SL 293-2003

Guidelines of optimal operation of rural hydropower station

农村水电站优化运行导则

(English Translation)

Issued on: December 22, 2003 **Implemented on: April 1, 2004**

Issued by: Ministry of Water Resources of the People's Republic of China

Preview: page 1 of 4 shown, 10 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sl-293-2003

Chinastandards.org

Table of Contents

[Preview only]
1 General Provisions
2 Terms and Symbols
2.1 Terms
2.2 Symbols
3 Soil Erosion Type Division
3.1 Grade 1 Type Area
3.2 Grade II Type Area
3.3 Scope and Feature
4 Soil Erosion Intensity Graduation
4.1 INTENSITY GRADUATION OF WATER EROSION AND GRAVITY EROSION
4.2 WIND EROSION AND MIXING EROSION (DEBRIS FLOW) INTENSITY GRADUATION
4.3 Layout of Multipurpose Tunnel
5 Soil Erosion Degree Graduation
5.1 Selection of Pressure State
5.2 Sectional Shape
5.3 Sectional Dimension
6 Hydraulic Design of Tunnel
6.1 Calculation Principle
6.2 Anti-cavitation Design of Hydraulic Tunnel with High Velocity
7 Design of Soil Tunnel
7.1 Support and Lining of Soil Tunnel
7.2 Joint Division of Soil Tunnel Lining and its Anti-Seepage and Waterstop
8 Design of Tunnel Section at Adverse Geology
9 Tunnel Support and Lining
9.1 General Requirements
9.2 Loads and Load Combinations
9.3 Concrete and Reinforced Concrete lining
9.4 Prestressed Concrete Lining
9.5 Unlined and Anchor-shotcrete Lined Tunnel
9.6 Design of Reinforced Concrete Lining Bifurcated Tunnel

Preview: page 2 of 4 shown, 10 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sl-293-2003

9.7 Joints on Lining
9.8 Design of Water Retaining Jam

1 Foreword

SL 293-2003 was issued by Ministry of Water Resources of the People's Republic of China on 22 December 2003 and has been in force since 1 April 2004.

The SL prefix, without a suffix, marks a mandatory standard: within its scope, compliance is required.

The document runs to 10 pages in English translation.

2 Scope Preview

This standard applies to: capacity 50MW ~ 0. 5MW, outlet voltage level 110kV and below power stations optimized operation. Installed capacity of less than 0. 5MW-station may refer to.

SL 293-2003 falls under ICS 71.140, in the field of chemical technology.

This catalogue holds 721 other SL standards.

In this catalogue, SL standards carry edition years from 1989 to 2020.

3 About this standard

Sector: Water Resources Industry Standard

Issued by: Ministry of Water Resources of the People's Republic of China

English translation: about 10 pages (approximate)

Chinese original: about 15,194 characters

4 Related standards

Standards on related subjects:

NB 35047-2015 - Code for seismic design of hydraulic structures of hydropower projects

SL 314-2004 - Design specification for roller compacted concrete dams

SL 282-2003 - Design specification for concrete arch dams

SL 285-2020 - Design specification for intakes of water and hydropower projects

SL 303-2017 - Code for design of construction organization of water conservancy and

Preview: page 3 of 4 shown, 10 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sl-293-2003

hydropower project

SL 290-2009 - Specifications on land requisition and resettlement design for construction of water resources and hydropower project

5 Classification and status

International classification (ICS): 71.140

Chinese Standard Classification (CCS): P 59

Prefix SL: mandatory standard.

Preview: page 4 of 4 shown, 10 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sl-293-2003