

ICS 27.140
CCS P59

NB

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

NB/T 35048-2015

Replacing DL/T 5123-2000

Specification for acceptance of hydropower projects

水电工程验收规程

Issued on: April 2, 2015

Implemented on: September 1, 2015

Issued by: National Energy Administration of the PRC

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Foreword

This document was issued on 2 April 2015 by the National Energy Administration of the PRC and takes effect on 1 September 2015.

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 P59.

It replaces DL/T 5123-2000, which is superseded.

This specification was approved and issued by the National Energy Administration in Announcement No. 3 of 2015, dated 2 April 2015, which published 203 industry standards (106 energy standards NB and 97 electric power standards DL). It is effective from 1 September 2015 and replaces DL/T 5123-2000.

This specification was revised by the drafting group in accordance with the Notice of the National Energy Administration on the First Batch of Energy Industry Standard Formulation (Revision) Plans for 2010 (Guo Neng Ke Ji [2010] No. 320), after extensive investigation and research, careful summarization of practical experience and wide solicitation of opinions.

The main technical contents of this specification are: acceptance for closure, acceptance

for reservoir impoundment, acceptance for starting turbine-generator sets, acceptance for special single projects, special acceptance for hydropower complex projects and final acceptance.

The main technical changes in this revision are: the scope of application, the contents of stage acceptance and final acceptance, the provisions on the basis for acceptance, the provisions on the organization of acceptance work and the provisions on acceptance applications have been revised; the conditions to be met for closure, impoundment, unit start-up, special single project, special complex works and final acceptance have been revised; provisions on the working procedures and methods of these acceptances have been added; the provisions on acceptance of special single projects have been revised; provisions on preparing the acceptance outline and the acceptance certificate have been added; and the list of basis documents for acceptance has been revised.

This specification is under the administration of the National Energy Administration, is proposed and routinely managed by China Renewable Energy Engineering Institute, and the Energy Industry Standardization Technical Committee on Hydropower Survey and Design is responsible for interpreting its specific technical contents. Comments and suggestions arising during implementation should be sent to China Renewable Energy Engineering Institute (No. 2 Liupukang Beixiaojie, Xicheng District, Beijing, postal code 100120).

Chief development organization: China Renewable Energy Engineering Institute.

Participating development organization: Power Construction Corporation of China.

1 Scope

NB/T 35048-2015 is the Chinese specification for the acceptance of hydropower projects, replacing DL/T 5123-2000. A hydropower scheme is not accepted once at the end of construction: it passes through a sequence of milestones at which the works must be judged ready before the next, irreversible step is taken - closing the river, filling the reservoir, starting the first unit - and each of those milestones carries its own risk to people downstream. The specification sets the general provisions and the basic requirements on who organises each acceptance, how an acceptance committee is formed, the application to be made and its timing, and the documents that must be submitted. It then covers the stage acceptances in turn: river closure, with the conditions on the diversion works, the closure plan and the downstream safety arrangements; initial impoundment of the reservoir, with the conditions on the dam and its gates, the resettlement below the impoundment level, the safety monitoring system and the emergency plan; and the start-up of generating units, with the conditions on the waterway, the unit and its auxiliaries, the electrical systems and the grid connection. For each stage the specification states the conditions to be met, the inspections and tests to be carried out, and the content of the acceptance certificate. The acceptance of specialised aspects, the final completion acceptance and the handover

close the specification.

1.0.1 This specification is formulated in accordance with the relevant national laws, regulations and rules in order to standardize and strengthen the management of hydropower project acceptance, safeguard the safety of the project and of the lives and property of people upstream and downstream, meet the requirements of the project tasks and achieve the intended functions of the project.

1.0.2 This specification applies to the acceptance of state key hydropower station construction projects and of hydropower station projects approved (examined and approved) by the state. Acceptance for starting the turbine-generator sets of large hydropower plants (total installed capacity of 300 MW and above) in other construction projects shall also follow the requirements of this specification. Other hydropower projects may also apply this specification.

1.0.3 Acceptance of hydropower projects is divided into stage acceptance and final acceptance. Stage acceptance includes acceptance for river closure, acceptance for reservoir impoundment and acceptance for starting turbine-generator sets; before acceptance for closure and before acceptance for impoundment, the corresponding stage acceptance of land acquisition and resettlement for construction shall be carried out respectively.

1.0.3 (item 2) Final acceptance of the project shall be carried out after the special acceptances of the hydropower complex works, land acquisition and resettlement, environmental protection, soil and water conservation, fire protection, occupational safety and industrial hygiene, final accounts and project archives, as well as the acceptance of special single projects, have been passed. Acceptance of special single projects does not affect the special acceptance of the hydropower complex works or the other special acceptances.

1.0.4 Hydropower projects must be accepted in a timely manner before river closure, before reservoir impoundment, before starting the turbine-generator sets and after completion of the works.

1.0.5 The national energy authority is responsible for the supervision and management of hydropower project acceptance. The energy authorities of local people's governments at all levels are responsible for, and participate in, the management, guidance, coordination and supervision of hydropower project acceptance within their administrative regions according to their prescribed competence.

1.0.6 For acceptance for river closure, reservoir impoundment and starting turbine-generator sets, special acceptance of the hydropower complex works, acceptance of special single projects and final acceptance, an acceptance committee shall be established to organize the acceptance work. The acceptance work shall be scientific, objective, impartial and standardized.

1.0.7 The acceptance of hydropower projects shall be based mainly on the following documents: relevant national laws, regulations and industry provisions; relevant national and industry codes, specifications and technical standards; the project approval (examination and approval) documents; the approved feasibility study report (or original preliminary design), the special reports, major design change reports and budget estimate adjustments that have passed the technical review of the competent project authority, together with the corresponding review and approval opinions and the corresponding design documents and drawings; and the contract documents for project construction together with the quality standards and technical documents explicitly adopted in the contracts.

1.0.8 The special acceptances of land acquisition and resettlement, environmental protection, soil and water conservation, fire protection, occupational safety and industrial hygiene, final accounts and project archives shall be handled by the project legal person in accordance with the relevant laws, regulations and provisions.

1.0.9 The costs required for the acceptance of hydropower projects shall be included in the project budget estimate.

1.0.10 In addition to this specification, the acceptance of hydropower projects shall also comply with the relevant current national standards.

2 Basic requirement

2.1.1 Acceptance for reservoir impoundment, special acceptance of the hydropower complex works and final acceptance are the responsibility of the energy authority of the provincial people's government, which entrusts an organization with a proven record and capability as the technical presiding organization, organizes an acceptance committee to carry out the acceptance, and invites the relevant departments, the enterprise group separately listed in state planning to which the project legal person belongs, relevant organizations and experts to participate. The chairman of the acceptance committee is the energy authority of the provincial people's government, which may also entrust the technical presiding organization with this role; the vice chairmen are the provincial development and reform commission, the technical presiding organization and the enterprise group separately listed in state planning.

2.1.1 (continued) For projects built on rivers crossing provinces (autonomous regions, municipalities directly under the central government), acceptance for reservoir impoundment, special acceptance of the hydropower complex works and final acceptance are the joint responsibility of the energy authorities of the provincial people's governments of the provinces concerned.

2.1.2 Acceptance for river closure is carried out by an acceptance committee organized jointly by the project legal person with the provincial development and reform commission