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**Code for Audiovisual Document Collection and Filing**

**of Hydropower Projects**

**(Draft for comments)**

**水电工程声像文件收集与归档规范**

(征求意见稿）

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Issued by National Energy Administration of the People’s Republic of China

ENERGY SECTOR STANDARDS

OF THE PEOPLE’S REPUBLIC OF CHINA

中华人民共和国能源行业标准

Code for Audiovisual Document Collection and Filing

of Hydropower Projects

**水电工程声像文件收集与归档规范**

 **NB/T 10239-2019**

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The National Energy Administration has approved 384 energy sector standards including "Technical code for Electrical Exploration of Hydropower Projects" (Appendix 1), 48 energy sector standards including "Technical Guide for Rock-Filled Concrete Dams" in English (Appendix 2), and the Amendment No. 1 (Appendix 3) of 7 energy sector standards including "Technical Code for Environmental Impact Assessment of wind farm Projects", and abolished 5 energy sector standards/plans (Appendix 4) including "Charging Standards for Investigation and Design of Wind Power Project" (Appendix 4). All the above are hereby issued.

Attachment

1. Sector Standard Directory

2. Sector Standard English Catalog

3. Sector Standard Modification Notice

4. Catalogue of Sector Standards and Plans for Abolishment

 National Energy Administration of the People’s Republic of China

 November 4, 2019

Attachment 1:

**Sector Standard Directory**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial** **number** | **Standard No.** | **Title** | **Replaced standard No.** | **Adopted number** | **Approval Date** | **Implementation date** |
| … |  |  |  |  |  |  |
| 16 | NB/ T 10239-2019 | Code for Audiovisual Document Collection and Filing of Hydropower Projects |  |  | 2019 - 11 - 04 | 2020 - 05 - 01 |
| … |  |  |  |  |  |  |

**Foreword**

According to the requirements of the "Notice of the National Energy Administration on Issuing the 2015 Energy Sector Standard System (Revision) Plan" ((National Energy Science and Technology [2015] No. 283), the standard compilation team compiled this code after conducting a comprehensive investigation and research, conscientiously summing up practical experience, and on the basis of extensive consultation.

The main technical contents of this code are: basic regulations, collection of audiovisual document, arrangement of audiovisual document, and filing of audiovisual document

National Energy Administration is in charge of the administration of this code. China Renewable Energy Engineering Institute has proposed this code and is responsible for its routine management. Energy Sector Standardization technical committee on Hydropower Investigation and Design is responsible for the explanation of the specific technical contents. Comments and suggestions during the implementation process of this code should be addressd to:

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# 1 General provisions

1.0.1 This code is formulated in order to standardize the content and requirements of the collection, arrangement and filing of audiovisual document for hydropower projects.

1.0.2 This code is applicable to the collection, arrangement and filing of audiovisual document for hydropower projects.

1.0.3 In addition to this code, the collection and filing of audiovisual document of hydropower projects shall comply with the other relevant current national standards.

# 2 Terms

2.0.1 Audiovisual document

Photographics, audios, videos and corresponding text descriptions made during the construction of hydropower projects.

2.0.2 Collection of Audiovisual document \_

The activity of collecting and receiving audiovisual document.

2.0.3 Filing
The activity that documents with preservation value are collected systematically and handed over to the archives department of the project owner for preservation and completion.

2.0.4 audiovisual archives

The audiovisual document of hydropower projects that has been identified, collected and filed..

2.0.5 Project owner

The organization that organizes and manages the project construction and takes overall responsibility for the project construction process.

2.0.6 Project participants

All organizations involved in project construction and bearing specific legal responsibilities, mainly including investigation, design, construction, general contractor, supervision, equipment manufacturing and third-party testing, etc..

# 3 Basic Requirement

## 3.1 Management Responsibility

3.1.1 The project owner and the project participants shall be responsible for the collection and arrangement of the audiovisual document within their scope of work, and be responsible for the integrity, accuracy, systematicness and safety of the filed audiovisual document.

3.1.2 The project owner shall perform the following responsibility:

1 In charge of collecting the audiovisual document before the establishment of the project owner.

 2 Contents related to the collection, arrangement and filing of audiovisual document shall be stipulated in the bidding documents and the corresponding clauses of the contract.

3 Incorporate audiovisual document into the project file classification scheme, and formulate corresponding systems for the collection, arrangement and filing of audiovisual document.; supervise and guide the collection and arrangement of audiovisual document of project participants.

 4 Check and accept the audiovisual document filed by the project participants.

3.1.3 The supervision unit shall inspect and guide the process of collection and arrangement the audiovisual documents of the project under supervision, and shall be responsible for reviewing the audiovisual documents filed by the project owner.

3.1.4 The EPC contractor shall perform the following responsibility:

1 Formulate the detailed implementation rules for the collection, arrangement and filing of audiovisual document of the project, and be in charge of the collection and arrangement of audiovisual document for the contracted projects.

2 Contents related to the collection, arrangement and filing of audiovisual document shall be stipulated in the bidding documents and the corresponding clauses of the subcontract .

3 Supervise and guide the collection and arrangement of audiovisual document of all subcontractors.

4 Review, receive and summarize the audiovisual document of all subcontractors, and file them to the project owner after being reviewed by the supervision unit.

## 3.2 Basic requirement

3.2.1 The collection of audiovisual document shall be carried out simultaneously with the construction of the project, and it shall be systematic and traceable; it shall truly reflect the actual situation on the site; it shall include a clear theme, clear image, clear voice, and complete picture.

3.2.2 Audiovisual document shall be collated, reviewed and accepted before they can be filed. Arrangement should follow the rules of document formation, maintain the organic connection between documents, and facilitate storage and utilization.

3.2.3 The storage period shall be determined for the arrangement of audiovisual document. The retention period is divided into permanent period and fixed period, of which the fixed period is divided into 30 years and 10 years.

3.2.4 The collection scope of audiovisual document and retention period of filing should meet the requirements of the provisions of Appendix A of this code. The format of photographic description should meet the requirements of the provisions of Appendix B of this code. The format of pictures and tables of the audiovisual document should comply with the provisions of Appendix C of this code.

3.2.5 The electronic document name of the audiovisual document should be consistent with its file number.

# 4 Collection of Audiovisual Document

## 4.1 Collection Scope

The collection scope of audiovisual document shall mainly include the following:

1 Major activities during project construction, including leadership inspection, bidding, start working, dam a river, water storage, generate electricity, project completion, etc.

2 Important meetings during project construction, including overall work meetings, decision-making meetings that have a significant impact on the project plan, and commendation meetings.

3 Original topography and landforms of project.

4 Natural disasters encountered by the engineering, including earthquakes, debris flow, landslides and typhoons, etc.

5 Various types of accidents during engineering construction, including the accidents related to quality, safety, environmental protection, soil and water conservation and equipment, etc.

6 The situation before and after treatment of engineering geological defects, quality defects, state of equipment defects, etc.

 7 Important sampling, testing and inspection, etc.

8 Construction and acceptance of key parts and important hidden projects, etc.

9 The main environmental protection sensitive objects in the affected area during the engineering construction, including: rare and protected animals and plants, ancient and famous trees, cultural relics and historical sites, the appearance of relevant protected areas and their boundary piles, etc. The implementation process and effect of important environmental protection and soil and water conservation measures.

10 The achievement which reflects the results of the important stage of resettlement work, including the implementation process and effect of material index investigation, original site and appearance, production resettlement, relocation resettlement, compensation payment, special project construction, and cleaning of reservoir, etc..

11 The milestones of engineering construction and the engineering appearance of important nodes, including partitioned engineering, unit (item) engineering, contract engineering, stages and special acceptance, etc.

12 The appearance of project, buildings and the production and living areas after completion.

## 4.2 Collection Requirement

4.2.1 The photographic format should be JPG , TIFF , etc, and the shooting pixel should not be less than 12 million.

4.2.2 The audio format should be WAV, MP3, etc.

4.2.3 The video format should be in MPG, MP4 and AVI, etc, the output pixel resolution should not be less than 1920 × 1080 , the PAL format should be selected , and the frame rate should not be less than 25fps.

4.2.4 Professional photographer shall use Digital Single Lens Reflex with a pixel of no less than 20 million to take photographics.

Professional videographers shall use professional-grade video equipment with a resolution of not less than 1920×1080 to take videos.

4.2.5 The collected audiovisual document shall be typical and representative, and the content shall be clear and true, and the corresponding text description is necessary, including the origin of matter, time, place, person, background of the matter, and collector.

4.2.6 The original properties of the photographic shall be complete , and they shall not be modified or cropped. The content and corresponding information of audio and video files shall not be modified or manipulated.

4.2.7 The photographics of project quality and project acceptance should be clearly marked with the project parts when they are taken.

# 5 Arrangement of Audiovisual Document

## 5.1 Arrangement of photographic

5.1.1 The classification of filed photographics should be consistent with the classification of the corresponding project paper files.

5.1.2 The photographic archives album should be in A4 size, and 2 photographics should be placed on each page. The photographics in the album should be arranged according to the origin of matter and the shooting time.

5.1.3 The photographic description shall meet the following requirements:

1 The content of a single photographic description shall mainly include the title, file number, reference number, shooting time, photographer, and text description.

2 The filling of title, reference number, shooting time, photographer, text description, etc. should be in accordance with the current national standards "Specification of Photographic Archives Management" GB/T 11821 and "Specification for Digital Photos Filing and Management" DA/T 50.

3 The description of the photographic group should be compiled in accordance with the current national standards "Specification of Photographic Archives Management" GB/T 11821 and "Specification for Digital Photos Filing and Management" DA/T 50 .

5.1.4 Photographic cataloging should meet the following requirements:

1 The photographic document file number ( Figure 5.1.4 ) should be compiled in four sections, consisting of project code, classification number, album number and group number (sheet number) and “-”should be used between them .

×××× ― ×××× ― ZP ××× ― ××× ( ××/××)

5

4

3

 2

1

1 project code

2 classification number

3 book number

4 group number

5 segment number

Figure 5.1.4 Photographic file number

2 The project code shall be the specific code of the project file; the classification number shall be consistent with the classification number of the project file; the first two digits of the photographic album number are the photographic code, which should be represented by ZP , and the last three digits are the sequence number, starting from 0 0 1; The group number should be represented by 3-digit Arabic numerals; the first two digits of the segment number represent the photographic number in this group, and the last two digits represent the total number of photographics in this group. The digits of classification number, album number, group number and segment number may be increased or decreased according to the actual situation.

3 The catalogue in the photographic archive album shall include serial number, group number, photographer, title, shooting time, number of photographics and remarks.

4 The proforma format in the photographic archive album should comply with the current national standard "Specification of Photographic Archives Management" GB/T 11821 .

5 The spine of the photographic archive album shall include the storage period, file number, and title. The file number should be filled with the first three items.

6 The catalogue of photographic archive album shall include serial number, file number, responsible person, title, start and end time, number of sheets, storage period, reference number and remarks.

## 5.2 Arrangement of Audio Document

5.2.1 Audio document shall be complied to form audio files in units of events.

5.2.2 The cataloging of audio document should meet the following requirements:

1 The audio document file number (Figure 5.2.2 ) should be compiled in three sections, consisting of project code, classification number and group number and “-”should be used between them .

×××× ― ×××× ―Y P ×××× ( ××/××)

4

3

 2

1

1 project code;

2 classification number;

3 group number;

4 segment number

Figure 5.2.2 Audio document file number

2 The project code and classification number shall comply with the relevant provisions of Article 5.1.4 of this code ; the first 2 digits of the group number are the audio document code, which should be represented by Y P , and the last 4 digits are the sequence number, starting from 0 0 0 1; the first 2 digits of the segment number indicate the number of audio segments in this audio document group, and the last 2 digits represent the total number of segments in this audio document group. The digits of the classification number, group number and segement number may be increased or decreased according to the actual situation.

5.2.3 The catalog of audio document shall include serial number, recorder, title, recording time, duration and remarks.

## 5.3 Arrangement of Video Document

5.3.1 Video shall be complied to form a video document in units of events, in which the large panorama or the picture showing the key content of the event shall be edited on the first picture of the video.

5.3.2 The cataloging of Video document should meet the following requirements:

1 Thehe video document file number(Figure 5.3.2 ) should be written in three sections, consisting of project code, classification number and group number and “-”should be used between them.

×××× ― ×××× ―S P ×××× ( ××/××)

4

3

 2

1

1 project code;

2 classification number;

3 group number;

4 segment number

Figure 5.3.2 Video file number

 2 The project code and classification number shall comply with the relevant provisions of Article 5.1.4 of this code ; the first 2 digits of the group number are the video file code, which should be represented by SP , and the last 4 digits are the group number, starting from 0 0 0 1; the first 2 digits of the segment number indicate the number of segments in this group of the video file, and the last 2 digits indicate the total number of segments in this group of video files. The digits of the classification number,group number and segment number may be increased or decreased according to the actual situation.

5.3.3 The directory of video files should include serial number, photographicgrapher, title, shooting time, duration and remarks.

## 5.4 Storage of Audiovisual Electronic Documents

5.4.1 When the project participants use offline storage, they shall copy the electronic files with the archive marks to a storage medium with good durability, and the storage medium should be set to a state where writing is prohibited. The selection of storage medium should be write-once optical disc, magnetic tape, hard disk and so on.

5.4.2 Labels should be attached to the storage medium or equipment, and the labels should indicate the medium serial number, category number, start and end number of ducuments, security level, storage period, storage date, etc. When the storage medium is an optical disc, the cataloging should meet the following requirements:

1 The CD file number ( Fig. 5.4.2 ) should be written in three sections, consisting of project code, file type and CD sequence number .

×××× — GP ( ZP/YP/SP ) — ×××

3

2

1

1 project code;

2 file type ;

3 CD sequence number

Figure 5.4.2 Disc file number

2 The project code shall comply with the relevant provisions of Article 5.1.4 of this code; the first two digits of the file type are the CD code, which should be represented by GP, the last two digits are the audiovisual document type, the photographic should be represented by ZP, and the audio should be represented by YP , the video should be represented by SP; the CD sequence number should be represented by 3-digit Arabic numerals .

3 The contents of paper in cover identification of the boxes shall include file number, set number, project name, content summary, storage period and archive-level CD-ROM.

4 The contents of the label on the back cover of the box shall include the file format, type capacity, operating environment, production unit, production date and remarks.

5 The catalogue in the CD shall include serial number, responsible person, title, number of sheets/duration, start and end time, mutual reference number and remarks.

6 The CD-ROM catalog shall be compiled in the order of the audiovisual document file numbers, and it shall include the serial number, file number, production unit, title, production date, number of copies/duration, storage period, mutual reference number and remarks.

# 6 Filing of Audiovisual Document

6.0.1 The project participants shall file audiovisual document to the project owner according to the scope of duties, the agreement of contract, and after review and acceptance.

6.0.2 Three sets of audiovisual electronic files should be filed, and the set numbers should be represented by capital letters A , B , and C respectively . A indicates sealed storage, B indicate available , and C indicate storage in different site. Digital photographics with permanent preservation value shall be converted into a set of paper photographics and archived at the same time. If there is other agreement in the contract, it shall be executed according to the contract.

6.0.3 The archiving time of audiovisual documents should be carried out according to the agreement in contract. If there is no agreement in contract, it shall be archived synchronously with the paper files.

6.0.4 When archiving audiovisual documents, the "Visa for Archiving Audio-visual Documents" should be filled out, and the "Visa for Archiving Audio-visual Documents" should meet the requirements of Appendix D of this code . The "Visa for Archiving Audio-visual Documents" shall be in duplicate, with each party holding one copy.

**[Appendix](#_Toc391989069) [A](#_Toc391989069) Collection Scope and Archives period for Audiovisual documents**

**Table A Collection Scope and Archives period for Audiovisual documents**

| **serial number** | **Collection scope** | **Responsible unit** | **Content requirements** | **storage time** |
| --- | --- | --- | --- | --- |
| **1** | **Project approval** |
| (1) | Pre-feasibility, feasibility study report review meeting | project ownerinvestigation and design unit | There shall be content reflecting the name of the pre-feasibility, feasibility study report review meeting, typical moments and main persons | permanent |
| (2) | Important consultation, evaluation, demonstration meetings | project ownerinvestigation and design unit | There shall be the content of reflecting the name of the engineering consultation, evaluation and demonstration meeting, typical time, main persons and content of the site surveys | permanent |
| (3) | Special review meetings on environmental impact, soil and water conservation, labor safety and industrial hygiene, energy conservation, fire protection, construction land, resettlement, cultural relics, earthquake safety assessment, overburdened mineral resources, forest land, water resources, etc. | project ownerinvestigation and design unit | There shall be content reflecting the name, typical time and main persons of each special review meeting of the project | permanent |
| **2** | **investigation and design** |
| (1) | Project site selection, hydrology, investigation and important soil and rock samples | investigation and design unit | There should be site survey of Project site selection, hydrological phenomena and important soil and rock samples for project site selection. photographics of important soil samples and rock samples shall comply with the relevant provisions of the current sector standard "Code for Core Collection and Filing in Hydropower Projects" (NB/ T 10134). | permanent |
| (2) | original topography and landform | Investigation and design unit | There should be the original topography, landform, the whole picture of surrounding conditions and local close-ups, etc. of project parts such as the project pivot area, the bank nearby the dam, the reservoir area, the downstream influence area of the hydropower station, the production and living auxiliary area, the construction auxiliary area, the mining areas such as dam materials and concrete aggregates, important submergence control objects, and downstream flood control objects.etc. | permanent |
| (3) | control point | Investigation and design unit | There shall be the content of reflecting the name, number and surrounding topography of the survey control point | permanent |
| (4) | Decision-making meeting that has a significant impact on the project plan | Investigation and design unit | There shall be the name, the typical time, the main persons and the content of the site survey of the decision-making meeting that has a significant impact on the project plan,  | permanent |
| (5) | The main environmental protection sensitive objects in the affected area of the project, including: rare and protected animals and plants, ancient and famous trees, cultural relics and historic sites, the appearance of the relevant protected areas and their boundary stakes, etc. | Investigation and design unit | There shall be the content of reflecting the overall picture of the main environmental protection sensitive objects, the surrounding environment, etc. | permanent |
| (6) | Major design alternation review meeting | Investigation and design unit | There shall be the content of reflecting the name the typical time, the main participants and the content of the site survey of the major design alternation review meeting, | permanent |
| (7) | Typical geological conditions and major geological phenomena after excavation of building slopes and foundation pits | Investigation and design unit | There shall be the content of typical geological conditions, major geological phenomena, geological structures, etc. disclosed after excavation of foundation pits and high slopes of important buildings | permanent |
| 3  | **Construction land acquisition and resettlement** |
| (1) | Decision-making meetings that have a major impact on land acquisition, demolition and resettlement plan | project ownerInvestigation and design unitImmigration supervision unit | There shall be the content of the name,the typical time and the main persons of the decision-making meeting that reflects the significant impact of land acquisition, demolition and resettlement plans. | permanent |
| (2) | Original landform of construction expropriation area and resettlement area | project ownerInvestigation and design unitImmigration supervision unit | There shall be the content of original topography and surrounding environment of the place of emigration and emigration, as well as the status of settlements, ethnic features, professional projects, tracts of basic farmland, gardens, urban market towns, etc. | permanent |
| (3) | material index Survey | project ownerInvestigation and design unit | There shall be the content of reflecting relevant meetings, households and population, on-site work, index confirmation, publicity, etc. | permanent |
| (4) | Implementation of resettlement  | project ownerInvestigation and design unit | There shall be the content of reflecting the resettlement plan to solicit the resettlement's wishes, relevant meetings, confirmation plans, etc. Urban market towns, important professional projects, construction process of important residential areas, compensation and payment, etc. | permanent |
| (5) | Immigration special project | Immigration supervision unit | There shall be the content of reflecting the important nodes of the major special projects for resettlement | permanent |
| (6) | reservoir cleaning | project owner | There shall be the content of reflecting the current situation before the cleaning of the reservoir bottom and the actual effect after the cleaning, etc. | permanent |
| **4**  | **project management** |
| (1) | Major activities during project construction, including leadership inspection, bidding, start working, dam a river, water storage, production and generate electricity, project completion, etc. | project owner | There shall be the content of reflecting the topic, persons, location, speaking content, and main conclusions,etc.. Bidding and contract signing mainly refer to that of main project | permanent |
| (2) | Important meetings during project construction, including overall work meetings, decision-making meetings that have a significant impact on the project plan, commendation meetings, etc. | project owner | There shall be the content of reflecting the meeting name, typical time and main participants, including investment, quality, progress, safety, environmental protection, soil and water conservation and other overall meetings, as well as important equipment design liaison meetings | permanent |
| (3) | Various types of accidents during project construction, including quality, safety, environmental protection, soil and water conservation and equipment, etc. | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting the situation of the accident scene, the effect of the measures taken, etc. | permanent |
| (4) | The situation, loss, reconstruction, etc when natural disasters taken place during project construction, including earthquakes, debris flow, landslides, typhoons, etc., . | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting events, people, places, etc. | permanent |
| (5) | Important education and training activities such as quality and safety, energy conservation and environmental protection, and mandatory provisions | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting the training theme, persons, location, etc. | 30 years |
| (6) | Major special inspection and quality supervision activities | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting the topic of the inspection activities and the main results of the inspection. The main problems found in the inspection shall be compared and photographed before and after rectification. | 30 years |
| (7) | Typical or bright spots in quality, environmental protection and soil and water conservation | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting quality, environmental protection and soil and water conservation | 30 years |
| (8) | Typical or bright spots in safe and civilized construction | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting typical excavation, concrete pouring, electrical installation, etc. related to safe and civilized construction | 10 years |
| (9) | Third-party quality inspection of important parts during the construction process | Detection unit | There shall be the content of reflecting the testing items, persons, location and typical process, etc. | 30 years |
| (10) | Major technological innovation | complete unit | There shall be the content of reflecting typical moments during the process of major technological innovation | permanent |
| (11) | Important "five new" applications | complete unit | There shall be the content of reflecting the application activities of new technologies, new processes, new materials, new production, and new equipment, etc. | permanent |
| (12) | Important milestones, important nodes | project ownerSupervision unitconstruction contractor | There shall be the content of reflecting the topic, persons, location and speaking content of the action and meeting, main conclusions, etc. | permanent |
| (13) | The image of the main project of the hydropower station | project owner | There shall be the photographic of reflecting a full picture and partial close-up content of the project, and it should be shot at a fixed point every month | permanent |
| (14) | The image of the temporary project | project owner | There shall be the photographic of reflecting the situation before and after the construction of the temporary project, as well as the demolition and restoration situation | 10 years |
| **6** | **Project construction** |
| (1) | The original topography and landform of the site when entering the site | project ownerSupervision unit | There shall be the content of reflecting the whole picture and partial close-up content | permanent |
| (2) | Construction control network | project owner | There shall be the content of reflecting the control point number and the surrounding topography and landform | permanent |
| (3) | Technical (safety) disclosure and special construction plan demonstration review meeting for more dangerous projects | project owner | There shall be the content of reflecting the name of the meeting, typical moments and key persons, etc. | 10 years |
| (4) | construction project image | project owner | There shall be content such as the start and completion of the sub-projects and the image of the important node projects, and a group of shots should be taken every month. | permanent |
| (5) | On-site abnormal situations such as construction work, shutdown, etc. | project owner | There shall be the content of reflecting the location, on-site situations, time, etc. that reflect the abnormal situation on the site, such as squatting and work stoppage, etc. | 10 years |
| (6) | On-site quality inspection and testing of key parts and important concealed projects | project ownertest center | There shall be the content of reflecting the test items, typical process, etc. | permanent |
| (7) | Import and inspection of important instrument and equipment | project ownersupply unit | There shall be the content of reflecting the overall appearance of unpacked instruments and equipment, close-up of defects, inspection rates, etc. | permanent |
| (8) | Major engineering geological defects in construction stage and foundation surface of important buildings | project ownerInvestigation and design unit | There shall be the content of reflecting the on-site geological conditions, geological structure and geological defects after the excavation of the foundation surface | permanent |
| (9) | Construction and acceptance of key parts and important concealed projects | project ownerconstruction contractor Supervision unit | There shall be the content of reflecting the typical conditions of the site, inspection items, acceptance person, construction process, etc.; there shall be the photographic and audio which reflecting the filling of key parts of concrete dams and the filling of earth-rock dam core walls; there shall be the content of reflecting he installation and initial Value acquisition and other content for monitoring instruments; for curtain grouting and concrete, there shall be the content of reflect the quality inspection core and core sample, etc., and should have the project part identification when shooting | permanent |
| (10) | Construction quality defects | Investigation and design unitSupervision unitproject owner | There shall be the content of reflecting the current status of the defect, the treatment process and the effect after treatment, etc., and the engineering part should be marked when shooting | permanent |
| (11) | equipment defect | Supervision unitproject owner | There shall be the content of reflecting the current status of the defect, the treatment process and the effect after treatment, etc., and the engineering part should be marked when shooting | 30 years |
| (12) | Implementation process and effect of important environmental protection and soil and water conservation measures | Supervision unitconstruction contractor | There shall be the content of reflecting the whole picture and partial close-up content | 30 years |
| (13) | Unit (item) construction type | project ownerconstruction contractor | There shall be the content of reflecting the whole picture and partial close-up content | permanent |
| **7** | **Project supervision** |
| (1) | Supervision stations for key parts, important hidden projects, key processes, quality defect treatment, etc. and corresponding witness sampling, shutdown pending inspection points | Supervision unit | There shall be the content of reflecting the typical situation of the site, the closing status and effect of non-conforming items, etc. | permanent |
| (2) | Evidence collection of on-site abnormal conditions such as idleness work and shutdown | Supervision unit | There shall be the content of reflecting the location, on-site conditions, time, etc.of the abnormal situation on the site, such as squatting and work stoppage, etc. | 10 years |
| **8** | **Scientific and research projects** |
|  | important scientific and testing research | complete unit | There shall be the content of reflecting the development of scientific and research projects, experimental research and effects, etc. | 30 years |
| **9** | **Production technology preparation, trial operation** |
| (1) | Trial operation status of main equipment, overcurrent flow state of flood discharge buildings | operating unit | There shall be the content of reflecting the site situation of the main equipment trial operation, the overflow flow state of the flood discharge building, etc. | 30 years |
| (2) | The operation status of environmental protection, soil and water conservation and other facilities operation status | project owneroperating unit | There shall be the content of reflecting the operating situation of environmental protection, soil and water conservation, etc. | 30 years |
| **10** | **Engineering acceptance** |
| (1) | Acceptance at the stages of dam a river, lower gate storage, and start-up of the first unit,etc. | project owner | There shall be the content of reflecting the on-site acceptance inspection, the topic of the acceptance meeting, the main project participants and persons, etc. | permanent |
| (2) | Unit (item) project, contract project acceptance | project owner | There shall be the content of reflecting the on-site acceptance inspection, the topic of the acceptance meeting, the main project participants and persons, etc. | permanent |
| (3) | Special acceptance of engineering hub, resettlement, environmental protection, soil and water conservation, fire protection, labor safety and industrial hygiene, project final accounts, project archives, etc. | project owner | There shall be the content of reflecting the on-site acceptance inspection, the opic of the acceptance meeting, the main project participants and persons, etc. | permanent |
| (4) | Project completion acceptance | project owner | There shall be the content of reflecting the on-site acceptance inspection, the topic of acceptance meeting, main project participants and persons, etc. | permanent |
| **11** | **other** |
| (1) | The reports by News media on important activities, major events and typical figures of the project | project owner |  | permanent |
| (2) | Project Feature Film | project owner |  | permanent |

Note:

1. Construction contractor include civil construction and mechanical and electrical installation and commissioning units.

2. Important events and meetings should be synchronized to form audio and video files.

Appendix B Photographic Description Format

**Title:**

photographic

**File number:**

**reference number:**

**Shooting time:**

**Photographer:**

**Text description:**

**Figure B Photographic description format**

**Appendix C Audiovisual Documents Chart Format**

C.0.1 The contents of the photographic archives should meet the requirements of Table C.0.1 .

Table C.0.1 Contents of the photographic Archives

File number:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Serial No. | Group No. | Photographer | Title | photograph date  | sheet | Remark |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

C.0.2 The spine of the photographic archive should meet the requirements of Figure C.0.2 .



Storage period, File No., Title

Figure C.0.2 photographic archive spine ( unit is mm )

C.0.3 The photographic archive catalog should meet the requirements of Table C.0.3 .

Table C.0.3 The photographic archive catalog

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Serial No. | File No. | Responsibility person  | Title | Starting/ending period | Sheet | Storage Period | Refenrence No. | Remark |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

C0.4 The Audio archive catalog should meet the requirements of Table C.0.4 .

**Table** C.0.4 The Audio archive catalog

File No.：

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SerialNo. | Recorder | Title | Recording Period | Duration  | Remark |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

C. 0.5 The Video archive catalog should meet the requirements of Figure C.0.5 .

C.0.5 The Video archive catalog

File No.：

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SerialNo. | photographer | Title | photographic time | Duration | Remark |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

C.0.6 The cover label of CD container should meet the requirements of Figure C.0.6



File No. File set No. Project Name Abstract Storage Period File level CD

Figure C.0.6 The cover label of disc box

Remark: Unit: mm

C.0.7 The label on CD Container back cover should meet the requirement of C.0.7.



CD background information, document format, type capacity, operation environment, prepared by, prepared date, remark, file No.

C.0.7 The label on CD box back cover

Remark: The dimension for the label on CD cover

C.0.8 The catalog inside the CD box should meet the requirement of Table C.0.8.

Table C.0.8 The catalog inside the CD box

File No.：

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Serial No. | Responsibility person | Title | Sheet/duration | Starting/ending period | reference number | Remark |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

C.0.9 The CD box catalog should meet the requirement of Table C.0.9.

Table C.0.9 The CD container catalog

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Serial No. | File No. | Producing Unit | Title | Producing Date | Sheet/Duration | Storage period | reference number | Remark |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
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Appendix D Filing certificate of Audiovisual Documents

**Table D Filing certificate of Audiovisual Documents**

|  |
| --- |
| **Filing certificate of Audiovisual Documents**Project Name： Contract Name： Contract No.：Filed by（Stamp）: Accepted by：（Stamp）Date  |

**Continued Form D**

|  |  |
| --- | --- |
| Opinion from filing Unit |  Technical checker： Filer：Stamp：Filing time： |
| Opinion from Supervision Unit |  Chief supervision engineer：Supervision engineer：Stamp：Check time： |
| Opinion from Construction technical Unit | Department leader ;Technical checker：Department Stamp： Accepted time： |
| Opinion from Construction filing Unit | Department leaderFiled by：Department Stamp： Accepted time： |

|  |
| --- |
| 1. photographic

Paper version \_\_\_\_\_ volume, \_\_\_\_\_ pieces, of which (permanent\_ volume, 30 -year\_ volume, 10 - year\_ volume) CD-ROM \_2. AudioCD \_\_\_\_\_\_ pieces3. VideoCD \_\_\_\_\_\_ pieces |

**Continued Form D**

**Continued Form D**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Serial No.** | **File No.** | **Title** | **Filing Unit** | **Start/ending period** | **Quantity** | **Storage period** | **Carrier form** | **Remark** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
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# Explanation of Wording in This Code

1 Words used for different degrees of strictness are explained as follows in order to mark the differences in executing the requirements in this code.

**1）**Words denoting a very strict or mandatory requirement:

"Must" is used for affirmation; "must not" for negation.

**2）**Words denoting a strict requirement under normal conditions:

"Shall" is used for affirmation; "shall not" for negation.

**3）**Words denoting a permission of a slight choice or an indication of the most suitable choice when conditions permit:

"Should" is used for affirmation; "should not" for negation.

**4）**"May" is used to express the option available, sometimes with the conditional permit.

**1** "Shall meet the requirements of..." or "Shall comply with..." is used in this code to indicate that it is necessary to comply with the requirements stipulated in other relative standards and codes.

# List of Quoted Standards

*GB/T 11821, Specification of Photographic Archives Management*

*DA/T 50, Specification for Digital Photos filing and Management*

*N B/T 10134, Code for Core Collection and Filing of Hydropower Projects*

**People's Republic of China Energy Sector Standard**

Code for Audiovisual Document Collection and Filing

of Hydropower Projects

**NB/T 10239-2019**

# Article description

**Explanation**

" Code for Audiovisual Document Collection and Filing of Hydropower Projects" NB /T 10239 -2019, which was approved and released by the National Energy Administration on November 4, 2019 with the No. 6 Announcement.

During the formulation of this code, the compilation team conducted extensive investigation and research, summed up the practical experience of collecting and arranging audiovisual document for hydropower projects, and formulated this code on the basis of extensive solicitation of opinions.

In order to facilitate the relevant personnel of the majority of construction, survey, design, construction and installation, supervision and other units to correctly understand and implement the provisions when using this code, the compilation group of the "Code for Audiovisual Document Collection and Filing of Hydropower Projects" is organized in the order of chapters, sections and articles. The description of the provisions of this code is prepared, and the purpose, basis and relevant matters to be paid attention to in the implementation of the provisions of the provisions are explained. However, the description of this article does not have the same legal effect as the main text of the norm, and is only used as a reference for users to understand and grasp the provisions of the norm.

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**1 General**

**1.0.2** This code is applicable to hydropower project construction projects, and also has a guiding role in the collection and filing of audiovisual documents during the operation and maintenance of hydropower stations .

4 Audiovisual file collection

**4.1.1**  "Key parts and important hidden projects" refer to "Inspection and Assessment Specification for Construction Quality of hydraulic and hydroelectric engineering" SL 176. Among them, key parts refer to “parts that have a significant impact on project safety, benefits, or functions”; important hidden projects refer to “foundation excavation of major buildings, underground cavern excavation, foundation anti-seepage, reinforcement treatment and drainage, etc. Among the concealed works, the concealed works that have a serious impact on the safety or function of the project.