### भारतीय मानक

## नदी घाटी परियोजनाओं में कार्य मापन पद्धतियां ( बांध और सम्बद्ध संरचनाएं )

भाग 15 अंवेषण कार्य खण्ड 2 सोज बंधन

Indian Standard

# METHOD OF MEASUREMENT OF WORKS IN RIVER VALLEY PROJECTS ( DAMS AND APPURTENANT STRUCTURES )

PART 15 INVESTIGATION WORKS
Section 2 Exploratory Drifting

UDC 627.8:622.261:69.003.12

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002 Measurement of Works of River Valley Projects Sectional Committee, RVD 23

#### FOREWORD

This Indian Standard (Part 15/Section 2) was adopted by the Bureau of Indian Standards, after the draft finalized by the Measurement of Works of River Valley Projects Sectional Committee had been approved by the River Valley Division Council.

In the measurement of works of river projects a large diversity of methods exist at present according to local practices. This lack of uniformity creates complications regarding measurements and payments. Keeping in view the large amount of financial outlay involved in river valley projects and also the fact that the authorities responsible for completing these projects, are of the state level or national level, it is felt that a suitable methodology is needed for adopting uniform practices towards the measurement of works so that the scope of complications and misinterpretation of items of work is reduced, as far as possible. This standard is being formulated in various parts so as to cover each type of work separately. This part is being formulated in two sections. Section 1 Covering bore hole drilling, and Section 2 Exploratory drifting. This standard is intended to provide a uniform basis for measuring the work done in respect of exploratory drifting for River Valley Projects.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

### Indian Standard

# METHOD OF MEASUREMENT OF WORKS IN RIVER VALLEY PROJECTS ( DAMS AND APPURTENANT STRUCTURES )

## PART 15 INVESTIGATION WORKS Section 2 Exploratory Drifting

#### 1 SCOPE

1.1 This standard (Part 15/Section 2) covers the method of measurement of Investigation works (drifting) to be carried out for River Valley Projects.

#### 2 GENERAL

#### 2.1 Clubbing of Items

Items may be clubbed together provided these are on the basis of detailed description of items stated in this standard.

#### 2.2 Booking of Dimensions

In booking dimensions, the order shall be consistent and generally in the sequence of length, breadth or width and height or depth or thickness.

#### 2.3 Description of Items

Description of each item, unless stated otherwise, be held to include, where necessary, conveyance and delivery, handling, loading and unloading, storing, fabrication, hoisting, lowering, all labour for finishing to required shape and size, setting, fixing in position etc. The size and location of each drift shall be specified.

#### 2.4 Units of Measurement

All works shall be measured net in decimal system. Dimensions shall be measured to the nearest 0.01 m and cubic contents shall be worked out to the nearest 0.01 m<sup>3</sup>.

#### 2.5 Bill of Quantities

The bill of quantity shall fully describe the material and workmanship and accurately represent the work to be executed.

2.6 A general description of the nature of site shall be stated.

- 2.7 The following work shall not be measured seperately and allowance for the same shall be deemed to have been made in the description of the main item:
  - a) Preparation of approach path, bench/ platform etc. for facilitating excavation of drift.
  - b) Excavation of drifts.
  - c) Supporting arrangement including supporting material wherever required.
  - d) Excavation equipment and accessories, including their transportation and shifting. Removal, transportation and disposal of muck (explosive materials to be provided by the department).
  - e) Recording and maintenance of records during the course of excavation including size and location.
  - f) Record of explosive material.
  - g) Marking the location and layout of the drifts actually excavated, on the maps.
  - h) Extra material due to collapse in the drift or otherwise.
  - j) Execution of works according to the Indian Explosives Act.
  - k) Labour involved in preparation of geological maps.
  - m) Handing over all the records as above, in original, and the unused explosive material in complete manner.

#### 3 MEASUREMENT OF DRIFTING

- 3.1 The measurement shall be in cubic metres based on length of drift and cross-section including cross cuts excavated along the centre line of the drifts.
- 3.2 Drifting in overburden, soft rock and hard rock shall be measured separately in metres.

#### Standard Mark

The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.