भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
अभिकल्प उत्तर एवं पश्चिम इकाई
अभिकल्प मानक निदेशालय

सत्यमेव जयते

Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD&GR
Central Water Commission
(Design N&W Unit)
Design Standards Dte.

सेवा में,

Scientist E/Director and Head, WRD
मानक भवन , 9 बहादूरशाह जफर मार्ग
भारतीय मानक ब्यूरो, नई दिल्ली - 110002|
ई - मेल: hwrd@bis.gov.in
(Kind attention to Shri Vaibhav Jindal, सदस्य सचिव, WRD 06, BIS)

विषय: **Approval of Draft Indian Standards Specifications – Document No.:-WRD/06/22547** - के संबंध में |

महोदय,

Approval of Chairman, CWC in the capacity of Chairman, WRDC of BIS is hereby conveyed for adoption and printing of following:

Document Number	Document Title
WRD/06/22547	PROFORMA FOR REPORTING PROGRESS DURING CONSTRUCTION FOR RIVER VALLEY PROJECTS PART 3 FLOOD CONTROL (First Revision of IS 13218 Part 3)

Further, the same with proforma is forwarded in original with authorization.

अनु०- यथावत |

भवदीय,

(सतीश काम्बोज)
निदेशक,
अभिकल्प मानक निदेशालय, के०ज०आ०

प्रतिलिपि सूचनार्थः

1. अध्यक्ष, Sectional Committee, WRD 06, BIS and Chief Engineer, PAO, के०ज०आ०, नई दिल्ली|
2. निदेशक, PA(S)/ निदेशक, PA(N), के०ज०आ०, नई दिल्ली|

चौथी तल (दक्षिण), सेवा भवन
राम कृष्ण पुरम, नई दिल्ली -110066
दूरभाष: 011-29583496,
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S जल संरक्षण-सुरक्षित भविष्य S

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Conserve Water- Save Life

PROFORMA FOR ADOPTION OF DRAFT INDIAN STANDARD

BUREAU OF INDIAN STANDARDS

Subject: Approval of Draft Indian Standard

Sl. No.	Doc. No.	IS No.	TITLE
1	WRD/06/22547	IS 13218 (Part 3)	Proforma for Reporting Progress During Construction for River Valley Projects Part 3 Flood Control (*First Revision*)

In accordance with Part II, sub-rule (2) of rule 22 of BIS Rules 2018, I enclose a copy of the draft Indian Standard mentioned above finalized by the Sectional Committee WRD 06 and its Chairperson, in the light of comments received from important stake holders.

It is requested that this note and its enclosures may be returned to this office as early as possible recording your approval of the above draft Indian Standard.

Encl.: As above.

Dushyant Prajapati 8/10/24

Dushyant Prajapati
Scientist E/ Director and Head
(Water Resources Department)

दुष्यन्त प्रजापति /DUSHYANT PRAJAPATI
वैज्ञानिक 'ई'/निदेशक (संसाधन विभाग)
Sc. 'E'/Director & Head (Water Resources Deptt.)
भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
उपभोक्ता मामले, खाद्य और सार्वजनिक वितरण मंत्रालय
Ministry of Consumer Affairs, Food & Public Distribution
भारत सरकार/Government of India
9, बहादुरशाह जफर मार्ग, नई दिल्ली-110002
9, Bahadur Shah Zafar Marg, New Delhi-110002

Chairperson, Water Resources Division Council
BIS U.O. No. WRD 06/T-12
Dated:

APPROVED

(Chairperson)
Water Resources Division Council

राकेश कुमार वर्मा/Rakesh Kumar Verma
अध्यक्ष/Chairman
केन्द्रीय जल आयोग/Central Water Commission
जल शक्ति मंत्रालय/Ministry of Jal Shakti
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
Deptt. of Water Resources, RD & GR
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi

भारतीय मानक
Indian Standard

IS 13218 (Part 3) : 2024

नदी घाटी परियोजना के निर्माण के दौरान हुई प्रगति की रिपोर्ट देने के लिए प्रपत्र

भाग 3 बाढ़ नियंत्रण

(पहला पुनरीक्षण)

Proforma for Reporting Progress During Construction for River Valley Projects

Part 3 Flood Control

(First Revision)

ICS 93.160

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002
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October 2024 Price Group 8

FOREWORD

This Indian Standard (Part 3) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Water Resources Planning, Management and Evaluation Sectional Committee had been approved by the Water Resources Division Council.

The object of monitoring is to identify bottlenecks and to ensure expeditious completion of schemes. Monitoring shall cover various stages of the project right from the conception stage to data collection, investigations planning, sanction, implementation, and operation. The performance would ensure the identification of bottlenecks and monitoring of progress, relating to any preset programme.

This standard (Part 3) was first published in 1992. This revision has been brought out in view of the various technological changes that have taken place in this field since 1992 and also to incorporate the latest practices prevalent in this field.

The following major modifications have been incorporated in this revision of the standard:

a) Clause **2** has been modified in view of revision of all the referred proformas in the text;

b) Proforma A has been revised to cover physical and financial planning of related schemes under flood control and their benefits. Proforma B and Proforma C of earlier version have been deleted in view of latest practices;

c) Proforma B (Proforma D of earlier version) has been revised to include progress report of expenditures;

d) Proforma C and Proforma D (Proforma E and Proforma F of earlier version) have been revised for reporting programme and progress of each project in view of latest practices; and

e) Proforma E, Proforma F, Proforma G and Proforma H (Proforma G, Proforma H, Proforma J and Proforma K of earlier version) have been revised for reporting detailed report of the projects in view of latest practices.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

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 : 2022 'Rules for rounding off numerical values (*second revision*)'. 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

PROFORMA FOR REPORTING PROGRESS DURING CONSTRUCTION FOR RIVER VALLEY PROJECTS

PART 3 FLOOD CONTROL

(First Revision)

1 SCOPE

This Standard provides guidance regarding presentation of proforma for reporting programme/progress of work related to flood control, drainage, bank protection, river-erosion and anti-sea erosion.

2 PROFORMAE OF REPORTING

The proformae have been prepared under the following three groups namely:

a) General information pertaining to all ongoing and new schemes;

1) *Physical and financial planning and their benefits* (*Proforma* A)

This is an annual form covering all projects in a river basin/sub-basin under the flood control sector in a financial plan period. The report shall cover physical & financial progress, approved outlays, and benefits. Information is to be furnished for each basin separately, showing the location of the scheme and the area benefited on an index map (1 : 50 000). Information regarding spill-over schemes of plan shall also be furnished.

2) *Progress report of expenditures* (*Proforma* B)

This is a quarterly report of expenditure which may be used for reporting progress at the project/state level monitoring and also for reposing the causes of variation.

b) Proforma for individual projects; and

For reporting programme and progress of each project, the following proforma are specified:

1) *Proforma and progress till completion* (*Proforma* C)

This proforma shall be adopted for reporting year-wise programme and progress both at the project and at the State level monitoring cells for each project irrespective of cost of schemes. The information in col (2) of this proforma may be furnished corresponding to different items of work planned for execution departmentally/ by separate contracts individually. The information in respect of each major structure put to tender separately in each reach should be reported separately. Under col (6) to (10), whenever actual progress is reported. The targets shall also be indicated in the numerator. The information in this proforma shall be accompanied by a plan (1 : 50 000) of the project showing the details of the scheme and the extent of protection envisaged/afforded. A pictorial chart showing construction programme/progress of various component schemes may also be supplied.

2) *Programme/Targets of work* (*Proforma* D)

In this proforma quarter-wise targets of works in 5 quarters, the quarter ending June, quarter ending September, quarter ending December, quarter ending March and quarter ending June of the next year, may be mentioned along with work done up to the previous financial year. The break-up of the quantities may be shown separately for execution by departmental and contractual agencies. The work under separate agencies, contracts should be monitored separately, at least at the project and state level. The date of start and stipulated date of completion may be mentioned under remarks columns. The report shall be submitted annually.

c) Detailed reporting of individual projects.

For detailed reporting of all activities under each project including land acquisition and project engineering, on a quarterly basis, the following proforma are specified:

1) *Progress report of infrastructure development* (*Proforma E*) (*For project man-power status*)

This report shall be given for each scheme on a quarterly basis. The report shall also contain details regarding approval of schemes by the State Flood Control Board and Ministry of Jal Shakti and the date(s) of administrative approval and expenditure sanction. The information shall be furnished within a month of the end of the quarter under report.

2) *Progress report of infrastructure facilities* (*Proforma* F)

All the major items of infrastructure have been listed against code numbers. Additional items as required may be included under the additional code numbers left blank. In the first report for any project item as listed with code numbers 001, 002 etc may be covered. In subsequent reports only items which are critical in nature and where there is a bottleneck, may be reported as per code numbers only. This report shall be submitted quarterly within a month of end of the quarter under report.

3) *Progress of project engineering* (*Proforma* G)

Under col (2) apart from works, procurement of equipment (where called for) is also to be reported. This report shall be submitted quarterly within a month of end of the quarter under report.

4) *Progress report of works* (*Proforma* H)

This contains detailed reporting of physical and financial progress in items of works as per the detailed project report of an individual project. The information is to be submitted biannually within a month pre and post flood season.

3 GENERAL

The annual, bi-annual and quarterly reporting of individual projects should invariably be accompanied by a narrative report indicating/highlighting therein the bottlenecks/shortfalls, if any, in the construction of the project and the measures taken/proposed to be taken at the state level to overcome these and any specific assistance needed from the central monitoring cell.

The geo tagging of projects may be carried out and the photographs of progress achieved shall be uploaded. A web enabled system may be developed for time saving in reporting and supervision of works.

PROFORMA A

Physical and Financial Planning of Flood Control, Drainage, Bank Protection, River Erosion and Anti-sea Erosion Schemes under River Basin/State.....

For Plan Period of .....

Approved Cost of the Project .....

(Rs. In lakhs)

Sl. No	Scheme/ Code No.	Name of Scheme/ State	Location		Estimated Cost	Central Share (.....%) or Revised CS (.....%)	Central Assistance			Year-wise Central Assistance released in Current Plan				Balance	Physical Progress (in %)	Financial Progress (in %)	Status (Completed/ ongoing/ Abandoned)	B. C. Ratio	Benefitted Area	Benefitted Population
			River/ Tributary	District/ Taluka			Released in Previous Plan	Spill Over in Present Plan	Total Central Assistance	Funds Released During FY	Funds Released During FY	Funds Released During FY	Funds Released Till date							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)

PROFORMA B

Flood Control, Drainage, Bank Protection, Anti-sea /River Erosion Projects

QUARTERLY PROGRESS REPORT OF EXPENDITURE

Basin/Sub-basin .....

State .....

Approved Cost of the Project .....

(Due by end of quarter)

Sl No.	Name of Scheme	Estimated Cost		Expenditure Till End of Year	Expenditure Year					Total Expenditure	Reason for Shortfall/Over sum in Expenditure					
		Sanctioned	Latest Assessed		Budgeted	Till Last Quarter	During Current Quarter	Cumulative	Anticipated During the Year		Price Escalation	Change in Scope	Inadequate Provision	Change in Design	Additional Requirement	Other Causes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
A								(Name of scheme)								
Qtr. 1																
Qtr. 2																
Qtr. 3																
Qtr. 4																
B	(Name of scheme)															
Qtr. 1																
Qtr. 2																
Qtr. 3																
Qtr. 4																

NOTE — Information may be furnished in respect of schemes spilling over from pre-plan, current plan separately in respect of cost of individual schemes.

PROFORMA C

Flood Control, Drainage, Bank Protection and Anti-sea /River Erosion Projects

PROGRAMME AND PLAN TILL COMPLETION

1) **Project** .....
2) **Basin/Sub-basin** .....
3) **State** .....
4) **Approved Cost of the Project** .....

Programme for Current Plan Period
Progress for the Year Ending.....

(Due for submission by the end of June)

Sl No.	Main Item of Work	Unit	Total Estimated Quantity	Balance Quantity as on 31st March of the Last Plan	Programme/Progress					Remarks
					Year ..... Target/Actual	Year ..... Target/Actual	Year ..... Target/Actual	Year ..... Target/Actual	Year ..... Target/Actual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

PROFORMA D

Flood Control, Drainage, Bank Protection and Anti-sea /River Erosion Projects

TARGETS OF WORK

1) **Project .....** **Programme for the Year Ending.....**

2) **Basin/sub-Basin .....**

3) **State .....**

4) **Approved Cost of the Project .....**

(Due by 30th June)

Sl No.	Main Item of Work Procurement of Materials	Total Estimated Quantity	Unit	Work Done Upto March	Target	Work To Be Done in Five Quarters Up To V					Remarks
						I Qtr.	II Qtr.	III Qtr.	IV Qtr.	V Qtr.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

Notes

1 The items may be suitably supplemented if necessary.

2 The break up to the quantities be shown separately for execution by departmental and contractual agencies. The quantities are to be shown for major contracts separately. The rest may be grouped together. For major contracts, the date of completion may be mentioned against 'remarks' column.

PROFORMA E

Flood Control, Drainage, Bank Protection and Anti-Sea Erosion Projects

PROGRESS REPORT OF INFRASTRUCTURE DEVELOPMENT (PROJECT MANPOWER STATUS)

1) **Project .....** **Progress for Quarter Ending .....**
2) **Basin/Sub-basin .....**
3) **State .....**
4) **Approve by TAC/DoWR and State TAC and FCB/**
5) **Investment Clearance by MoJS and Date.....**
6) **Date of Admission, Approval and Expenditure Sanction.....**
7) **Approved Cost of the Project .....**

(Due within a month of the end quarter under report)

Sl No.	Details	Managerial and Supervisory					Departmental Staff					Contractor's Staff						Remarks
		Chief Engineer	Superintending Engineer	Executive Engineer	Assistant Engineer	Junior Engineer	Highly Skilled Workers	Skilled Workers	Semi-Skilled Workers	Unskilled Workers	Total	Engineer	Highly Skilled Workers	Skilled Workers	Semi-Skilled Workers	Unskilled Workers	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)

PROFORMA F

Flood Control, Drainage, Bank Protection and Anti-Sea Erosion Projects

PROGRESS REPORT OF INFRASTRUCTURE FACILITIES

Project .....

Progress for Quarter Ending .....

Basin/Sub-basin .....

State .....

Approved Cost of the Project .....

(Due within a month of the end quarter under report)

Sl No.	**Items**	**Unit**	**Total Estimated Quantity**	**Quantity Completed**	**Current Year's (Quantity)**									**Total**	**Reasons for**
					Scheme for the Year	First Scheme	Quarter Achievement	Second Scheme	Quarter Achievement	Third Scheme	Quarter Achievement	Fourth Scheme	Quarter Achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)

PROFORMA G

Flood Control, Drainage, Bank Protection and Anti-Sea Erosion Projects

PROGRESS OF PROJECT ENGINEERING

1) **Project** .....

2) **Basin/sub-basin** .....

3) **State** .....

4) **Approved Cost of the Project** .....

Progress for Quarter Ending .....

(Due within a month of the end quarter under report)

Sl No.	**Name of Work**	**Surveys and Foundation Soil Investigations**		**Finalizing Designs and Specifications**		**Issuing M.I.T.**		**Finalization of Contract**		**Stipulated Date**		**Critical Items and Shortfall**
	Item of Procurement	Scheme Date	Actual Date	Scheme Date	Actual Date	Scheme Date	Actual Date	Scheme Date	Actual Date	Start of Work	Completion of Work	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)

PROFORMA H

Flood Management Programme During Plan (FY.....)

Code No. of the Scheme .....

1) Name of scheme:

2) Approved cost:

3) Central share approved by inter-ministerial committee:

4) Central assistance released till date:

5) Date of award of work:

6) Time schedule of completion:

Statement of quarterly financial progress of quarter ending .....

Sl No.	Item of Works	Total Cost (Approved by AC)	Financial Achievement (up to the Last Quarter)	Progress in the Present Quarter Ending		Cumulative Progress
				Target	Achievement	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Cost of land, if any					
ii)	Cost of earthwork					
iii)	Cost of revetment, launching apron and stone pitching etc					
iv)	Cost of cement concrete					
v)	Cost of inspection roads, if any					
vi)	Cost of drains, if any					
vii)	Any other item if not covered above					
viii)	Any other item if not covered above					
ix)	Any other item if not covered above					
x)	Overall financial progress of the scheme					

NOTE — The above statement may be certified by engineer-in-charge/competent authority based upon the works completed at site, checked and found correct.

Flood Management Programme During Plan (FY.....)

Code No. of the Scheme .....

1) Name of scheme:

2) Approved cost:

3) Central share:

4) Protected area:

5) Population benefitted:

Statement of quarterly financial progress of quarter ending .....

Sl No.	Item of Works	Total Cost (Approved by TAC/RCE)	Unit	Physical Achievement (up to the Last Quarter)	Progress in the Present Quarter Ending		Cumulative Progress
					Target	Achievement	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Land acquisition						
ii)	Length of embankment						
iii)	Length of revetment						
iv)	Length, width and depth of launching apron						
v)	Quantity of earthwork						
vi)	Quantity of stone works						
vii)	Concrete work						
viii)	Inspection roads, if any						
ix)	Drains, if any						

NOTE — The above statement may be certified by engineer-in-charge/competent authority that these have been checked physically and quantities shown are correct.

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Water Resources Planning, Management and Evaluation Sectional Committee, WRD 06

Organization	*Representative(s)*
Central Water Commission, New Delhi	SHRI YOGESH PAITHANKAR **(*Chairperson*)**
Bhakra Beas Management Board, Chandigarh	DIRECTOR DESIGN DY SECRETARY (PLANNING) (*Alternate*)
Central Board of Irrigation and Power, New Delhi	SHRI K. K. SINGH SHRI KAMAL KUMAR (*Alternate*)
Central Electricity Authority, New Delhi	SHRI BALWAN KUMAR MS ARPITA UPADHYAY (*Alternate*)
Central Pollution Control Board, New Delhi	SHRI P. K. MISHRA
Central Soil and Materials Research Station, New Delhi	SHRI MAHABIR DIXIT SHRI HARI DEV (*Alternate*)
Central Water Commission, New Delhi	SHRI N. MUKHARJEE SHRI KIRAN PRAMANIK (*Alternate*)
Ganga Flood Control Commission, Patna	SHRI SANDEEP KUMAR RAJAN SHRI AMITABH PRABHAKAR (*Alternate*)
Geological Survey of India, New Delhi	SHRI M. P. SRIVASTAVA SHRI N. C. SHARMA (*Alternate*)
Gujarat Engineering Research Institute, Vadodara	SHRI N. R. MAKWANA SHRI K. R. PATEL (*Alternate*)
Himachal Pradesh Power Corporation Limited, Shimla	SHRI R. K. KAUNDAL SHRI SANJAY RANA (*Alternate*)
ICAR - Indian Institute of Soil and Water Conservation, Dehradun	DR SRIDHAR PATRA DR UDAY MANDAL (*Alternate*)
Indian Agricultural Research Institute Library, New Delhi	DR MANOJ KHANNA DR SUSAMA SUDHISHRI (*Alternate*)
Indian Institute of Technology Kharagpur, Kharagpur,	DR DHRUBAJYOTI SEN DR BHABAGHAHI SAHOO (*Alternate*)
Indian Institute of Technology Roorkee, Roorkee	DR M. L. KANSAL DR N. K. GOEL (*Alternate*)
Indian National Committee on Surface Water, New Delhi	SHRI ANUJ KANWAL
Irrigation and Water Resources Department, Panchkula	SHRI TARUN AGGARWAL SHRI P. K. LUTHRA (*Alternate*)
Irrigation Department Government of Kerala , Thiruvananthapuram	SHRI PRIYESH R. MS SREEDEVI P. (*Alternate*)
Irrigation Research Institute, Roorkee	SHRI DINESH CHANDRA SHRI NAVEEN SINGHAL (*Alternate*)

Organization	*Representative(s)*
Jain Irrigation Systems Limited, Jalgaon	SHRI DILIP YEWALEKAR SHRI ABHIJIT BHASKAR JOSHI (*Alternate*)
Jaypee Infra Ventures Private Limited, Noida	SHRI VATSAL CHOPRA SHRI RAJNISH YADAV (*Alternate*)
Ministry of Environment Forest and Climate Change, New Delhi	SHRI B. B. BARMAN
National Bank For Agriculture and Rural Development, Mumbai	SHRI VIJENDRA SHARMA SHRI N. V. BASKARAN (*Alternate*)
National Hydroelectric Power Corporation, Faridabad	SHRI VIVEK DWIVEDI SHRI PIYUSH KUMAR (*Alternate* I) MS PUJA KUMARI (*Alternate* II)
National Institute of Hydrology, Roorkee	DR SHARAD KUMAR JAIN DR SANJAY KUMAR JAIN (*Alternate*)
National Rainfed Area Authority, New Delhi	SHRI BISWESWAR RATH
National Remote Sensing Centre, Hyderabad	DR V. VENKATESHWAR RAO
NITI Aayog, New Delhi	SHRI AVINASH MISHRA SHRI ARUNLAL K. (*Alternate*)
Sardar Sarovar Narmada Nigam Limited, Gandhinagar	DR V. M. YAGNI SHRI K. B. PARMAR (*Alternate*)
Satluj Jal Vidyut Nigam Limited, Shimla	SHRI BRIJESH KUMAR GUPTA SHRI R. K. ABROL (*Alternate*)
Soil and Land Use Survey of India, New Delhi	SHRI MILIND WADODKAR SHRI RANG LAL MEENA (*Alternate* I) SHRI N. S. GAHLOD (*Alternate* II)
Water Resources Department, Government of Andhra Pradesh, Vizianagaram	CHIEF ENGINEER CDO SUPERINTENDING ENGINEER DAM CIRCLE (*Alternate*)
Water Resources Department, Government of Arunachal Pradesh, Itanagar	SHRI LIKAR ANGU
Water Resources Department, Government of Bihar, Patna	SHRI MD ZIAUR RAHMAN
Water Resources Department, Government of Chhattisgarh, Raipur	SHRI K. S. DHRUV SHRI D. B. GUDRIBUA (*Alternate*)
Water Resources Department, Government of Madhya Pradesh, Bhopal	ENGINEER-IN-CHIEF CHIEF ENGINEER (*Alternate*)
Water Resources Department, Government of Maharashtra, Pune	SHRI DILEEP TAWAR SUPERINTENDING ENGINEER & DY SECY (IM) (*Alternate*)
Water Resources Department, Government of Rajasthan, Jaipur	SHRI D. R. MEENA SHRI CHOTHMAL CHOUDHARY (*Alternate*)

Organization	*Representative(s)*
Water Resources Department, Government of Tamil Nadu, Chennai	ENGINEER-IN-CHIEF SHRI T. GEETHA JAYASHREE (*Alternate*)
BIS Directorate General	SHRI DUSHYANT PRAJAPATI, SCIENTIST 'E'/DIRECTOR AND HEAD (WATER RESOURCES) [REPRESENTING DIRECTOR GENERAL (*Ex-officio*)]

Member Secretary
SHRI NAVDEEP YADAV
SCIENTIST 'B'/ASSISTANT DIRECTOR
(WATER RESOURCES), BIS

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 2016 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: WRD 06 (22547).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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