

BUREAU OF INDIAN STANDARDS

Program of Work

WRD 14 : Water Conductor Systems

Scope: Standardization of criteria for planning, design, construction, maintenance and related aspects of all components of water conductor systems.

Liaison:

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 11105:2004 Reviewed In : 2025	Design and Construction of Tunnel Plugs - Code of Practice	March, 2025	-	Indigenous
2	IS 11388:2012 Reviewed In : 2022	Recommendations for design of trash racks for intakes (Second Revision)	September, 2022	-	Indigenous
3	IS 11625:1986 Reviewed In : 2025	Criteria for hydraulic design of penstocks	March, 2025	-	Indigenous
4	IS 11639 (Part 1):1986 Reviewed In : 2025	Criteria for struc design of penstocks: Part 1 surface penstocks	March, 2025	1	Indigenous
5	IS 11639 (Part 2):1995 Reviewed In : 2025	Structural design of penstocks - Criteria: Part 2 buried/embedded penstocks in rock	March, 2025	-	Indigenous
6	IS 11639 (Part 3):1996 Reviewed In : 2023	Structural design of penstock - Criteria: Part 3 specials for penstocks	March, 2023	4	Indigenous
7	IS 12633:1989 Reviewed In : 2023	First filling and emptying of pressure tunnels - Guidelines	March, 2023	2	Indigenous
8	IS 12967 (Part 1):1990 Reviewed In : 2025	Analysis of hydraulic transients in hydro - Electric and pumping plants - Code of practice: Part 1 criteria for analysis	March, 2025	-	Indigenous
9	IS 13495:1992 Reviewed In : 2023	Design of sediment excluders - Guidelines	March, 2023	-	Indigenous
10	IS 15310:2003 Reviewed In : 2023	Hydraulic design of pump sumps and intakes - Guidelines	March, 2023	-	Indigenous
11	IS 16173:2014 Reviewed In : 2025	Criteria for hydraulic design of sediment removal devices for hydro power projects (First Revision)	March, 2025	-	Indigenous
12	IS 4410 (Part 20):1983 Reviewed In : 2025	Glossary of terms relating to river valley projects: Part 20 tunnels	March, 2025	-	Indigenous
13	IS 4880 (Part 1):2025	DESIGN OF TUNNELS CONVEYING WATER PART 1 GENERAL REQUIREMENTS - CODE OF PRACTICE Second Revision of IS 4880 Part 1		-	Indigenous

14	IS 4880 (Part 2):1976 Reviewed In : 2025	Code of practice for design of tunnels conveying water: Part 2 geometric design (First revision)	March, 2025	-	Indigenous
15	IS 4880 (Part 3):1976 Reviewed In : 2025	Code of practice for design of tunnels conveying water: Part 3 hydraulic design (First Revision)	March, 2025	-	Indigenous
16	IS 4880 (Part 4):1971 Reviewed In : 2025	Code of practice for design in tunnels conveying water: Part 4 structural design of concrete lining in rock	March, 2025	2	Indigenous
17	IS 4880 (Part 5):1972 Reviewed In : 2025	Code of practice for design of tunnels conveying water: Part 5 structural design of concrete lining in soft strata and soils	March, 2025	2	Indigenous
18	IS 4880 (Part 6):1971 Reviewed In : 2025	Code of practice for design of tunnels conveying water: Part 6 tunnel supports	March, 2025	-	Indigenous
19	IS 4880 (Part 7):2014 Reviewed In : 2025	Code of practice for design of tunnels conveying water: Part 7 structural design of steel lining (First Revision)	March, 2025	-	Indigenous
20	IS 5330:1984 Reviewed In : 2025	Criteria for design of anchor blocks for penstocks with expansion joints (First Revision)	March, 2025	-	Indigenous
21	IS 5878 (Part 1):1971 Reviewed In : 2023	Code of practice for construction of tunnels conveying water: Part 1 precision survey and setting out	March, 2023	2	Indigenous
22	IS 5878 (Part 2/Sec 1):1970 Reviewed In : 2025	Code of practice for construction of tunnels: Part 2 underground excavation in rock: Sec 1 drilling and blasting	March, 2025	1	Indigenous
23	IS 5878 (Part 2/Sec 2):1971 Reviewed In : 2025	Code of practice for construction of tunnels: Part 2 underground excavation in rock: Sec 2 ventilation, lighting, mucking and dewatering	March, 2025	1	Indigenous
24	IS 5878 (Part 2/Sec 3):1971 Reviewed In : 2025	Code of practice for construction of tunnels conveying water: Part 2 underground excavation in rock section: the tunneling method for steeply inclined tunnels, shafts and underground power houses	March, 2025	2	Indigenous
25	IS 5878 (Part 3):1972 Reviewed In : 2025	Code of practice for construction of tunnels: Part 3 underground excavation in soft strata	March, 2025	1	Indigenous
26	IS 5878 (Part 4):1971 Reviewed In : 2025	Code of practice for construction of tunnels conveying water: Part iv tunnel supports	March, 2025	2	Indigenous
27	IS 5878 (Part 5):1976 Reviewed In : 2025	Code of practice for construction of tunnels conveying water: Part 5 concrete lining (First Revision)	March, 2025	1	Indigenous
28	IS 5878 (Part 6):1975 Reviewed In : 2025	Code of practice for construction of tunnels: Part 6 steel lining	March, 2025	1	Indigenous
29	IS 5878 (Part 7):1972 Reviewed In : 2025	Code of practice for construction of tunnels conveying water: Part 7 grouting	March, 2025	2	Indigenous
30	IS 7357:1974 Reviewed In : 2025	Code of practice for structural design of surge tanks	March, 2025	-	Indigenous

31	IS 7396 (Part 1):1985 Reviewed In : 2025	Criteria for hydraulic design of surge tanks: Part 1 simple, restricted orifice and differential surge tanks (First Revision)	March, 2025	-	Indigenous
32	IS 7396 (Part 2):1985 Reviewed In : 2025	Criteria for hydraulic design of surge tanks: Part 2 tail race surge tanks (First Revision)	March, 2025	-	Indigenous
33	IS 7396 (Part 3):1990 Reviewed In : 2025	Criteria for hydraulic design of surge tanks: Part 3 special surge tanks	March, 2025	-	Indigenous
34	IS 7396 (Part 4):1983 Reviewed In : 2025	Criteria for hydraulic design of surge tanks: Part 4 multiple surge tanks	March, 2025	-	Indigenous
35	IS 7563:1986 Reviewed In : 2025	Code of practice for structural design of cut and cover concrete conduits (First Revision)	March, 2025	1	Indigenous
36	IS 7916:1992 Reviewed In : 2023	Open power channels - Code of practice (First Revision)	March, 2023	-	Indigenous
37	IS 9761:1995 Reviewed In : 2025	Hydropower intakes - Criteria for hydraulic design (First Revision)	March, 2025	-	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
No Records Found		

Preliminary Draft Standards

SI. No.	Doc No.	Title
1	WRD 14 (27048) Revision of: IS 9761:1995	CRITERIA FOR HYDRAULIC DESIGN OF HYDROPOWER INTAKES GUIDELINES Second Revision of IS 9761

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
1	WRD 14 (27491)	CONSTRUCTION OF TUNNELS CONVEYING WATER PART 1 PRECISION SURVEY AND SETTING OUT CODE OF PRACTICE First Revision of IS 5878 Part 1
2	WRD 14 (27494)	FIRST FILLING AND EMPTYING OF PRESSURE TUNNELS GUIDELINES First Revision of IS 12633
3	WRD 14 (27641)	HYDRAULIC DESIGN OF PUMP SUMPS AND INTAKES GUIDELINES First Revision of IS 15310
4	WRD 14 (27793)	CRITERIA FOR STRUCTURAL DESIGN OF PENSTOCK GUIDELINES PART 3 SPECIALS FOR PENSTOCKS First Revision of IS 11639 Part 3

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
No Records Found		

Total Published Standards:37 Total Standards Under development:5

Aspect Wise Report

Product : 0

Code of Practices : 36

Methods of Test : 0

Terminology : 1

Dimensions : 0

System Standard : 0

Safety Standard : 0

Others : 0

Service Specification : 0

Process Specification : 0

Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
No Records Found		

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
No Records Found		