**Action Research Project Report**

**On**

**IS 9349:2006**

**RECOMMENDATIONS FOR STRUCTURAL DESIGN**

**OF MEDIUM AND HIGH HEAD SLIDE GATES**

**(Second Revision)**

Sectional Committee No.: WRD 12

Title: (Hydraulic Gates and Valves Sectional Committee)

1. **OBJECTIVE OF THE STANDARD**

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Hydraulic Gates and Valves Sectional Committee had been approved by the Water Resources Division Council.

Slide gate, as the name implies, is that gate in which the operating member (gate leaf) slides on the seating surfaces provided on the frame consisting of bodies with or without bonnets. These gates are ‘generally installed in the closed conduit and have sealing all around. Jet flow gate also falls in this category.

1. **SCOPE OF THE STANDARD**
	1. This standard provides recommendation for structural design of medium and high head slide gates.
	2. This standard does not cover bulkhead stoplog gates and hoisting mechanism.
2. **ACTION RESEARCH METHODOLOGY AND RESEARCH**

The objective of this review is to study the standard and the latest developments, if any, so that an informed decision may be taken out of the 5 possible options that may chosen regarding the standard -

1. Reaffirm
2. Reaffirm with amendment
3. Reaffirm and Revise
4. Reaffirm and Archive
5. Withdraw
6. **NATIONAL AND INTERNATIONAL REFERENCES**
* IS 291 : 1989 - Naval brass rods and sections for machining purposes - Specification (third revision).
* IS 305 : 1981 - Specification for aluminium bronze ingots and castings (second revision).
* IS 306 : 1983 - Specification for tin bronze ingots and castings (third revision).
* IS 318 : 1981 - Specification for leaded tin bronze ingots and castings (second revision).
* IS 456 : 2000 - Plain and reinforced concrete - Code of practice (fourth revision).
* IS 800 : 2007 - General construction in steel - Code of practice (third revision).
* IS 808 : 2021 - Hot rolled steel beam, column, channel and angle sections â€” dimensions and properties (fourth revision).
* IS 1030 : 1998 - Carbon steel castings for general engineering purposes - specification (fifth revision).
* IS 1367 (Part 1) : 2014 / ISO 8992 : 2005 - Technical supply conditions for threaded steel fasteners: Part 1 general requirements for bolts, screws, studs and nuts (fourth revision).
* IS 1570 (Part 1) : 1978 - Schedules for wrought steels: Part 1 steels specified by tensile and/or yield properties (first revision).
* IS 1570 (Part 2/Sec1) : 1979 - Schedules for wrought steels: part 2 carbon steels (unalloyed steels): sec 1 wrought products (other than wires) with specified chemical composition and related properties (first revision).
* IS 1570 (Part 2/Sec 2) : 1987 - Schedules for wrought fteels: part 2 carbon steels (unalloyed steels): sec 2 carbon steel wires with related properties (first revision).
* IS 1570 (Part 3) : 1979 - Schedules for wrought steels: part 3 carbon and carbon - manganese free cutting steels (first revision).
* IS 1570 (Part 4) : 1988 - Schedules for wrought steels: part 4 alloy steels (alloy constructional and spring steels) with specified chemical composition and mechanical properties (first revision).
* IS 1570 (Part 5) : 1985 - Schedules for wrought steels: part 5 stainless and heat - resisting steels (second revision).
* IS 1570 (Part 6) : 1996 - Schedules for wrought steels: part 6 carbon and alloy tool steels (first revision).
* IS 1570 (Part 7) : 1992 - Schedule for wrought steels: part 7 steels for elevated temperature service (creep resistant steels).
* IS 1875 : 1992 - Carbon steel billets, blooms, slabs and bars for forgings - specification (fifth revision).
* IS 1893 : 1984 - Criteria for earthquake resistant design of structures (fourth revision).
* IS 2004 : 1991 - Carbon steel forgings for general engineering purposes - specification (third revision).
* IS 2062 : 2011 - Hot rolled medium and high tensile structural steel - specification (seventh revision).
* IS 2825 : 1969 - Code for unfired pressure vessels.
* IS 3073 : 1967 - Assessment of surface roughness.
* IS 6911 : 2017 - Stainless steel plate, sheet and strip - specification (second revision).
* IS 8500 : 1991 - Structural steel - microalloyed (medium and high strength qualities) (Withdrawn) / Superseded by - IS 2062 : 2006.
* IS 11855 : 2017 - Design and use of rubber seals for hydraulic gates - recommendations (second revision).
* IS 12804 : 1989 - Criteria for estimation of aeration demand for spillway and outlet structures.
1. **ACTION RESEARCH OUTPUT**

Pursuant to the above, the Standard still seems to be relevant and the expert members may be requested to give their inputs. It may be decided to reaffirm the standard without any change from the date of it being due, for a further period of five years. In case of any further developments, the committee may choose to take up the amendment / revision of the standard.

**Mr. Vaibhav Yadav**

Scientist-B

Water Resources Department