III History of Iron and Steel Slag Utilization

1900

1901	Commencement of integrated steelmaking at the government-operated Yawata Steel Works (current Yawata Area, Kyushu Works, Nippon Steel Corporation)
1907	Production of slag bricks with hydrated lime and granulated slag
1910	Commencement of cement production using blast furnace slag
1925	Notification on Blast-Furnace Slag Cement issued by the Ministry of Commerce and Industry
1955	Standards for calcium silicate fertilizer
1966	Establishment of the Slag Products Research Association
1976	Establishment of the Slag Resource Recycling Committee in the Japan Iron and Steel Federation
1977	Enactment of JIS A 5011 Blast furnace slag coarse aggregate for concrete
1978	Publication of the Recommendations for Practice of Blast Furnace Slag Crushed Stone Concrete (Draft) (by the Architectural Institute of Japan and the Japan Society of Civil Engineers)
1979	Enactment of JIS A 5015 Iron and steel slag for road construction
1981	Enactment of JIS A 5012 Blast furnace slag fine aggregate for concrete
1983	Publication of the Recommendations for Design and Construction of Concrete Using Blast-Furnace Slag Fine Aggregate (Draft) (by the Architectural Institute of Japan and the Japan Society of Civil Engineers)
1987	Publication of the Guidebook for the Use of Steelmaking Slag in Port Construction
1989	Adoption of blast-furnace slag cement as a measure to mitigate alkali-aggregate reaction (Ministry of Construction Notification)
1992	Incorporation of steelmaking slag into JIS A 5011 Blast furnace slag coarse aggregate for concrete and Revised JIS A 5015 Iron and steel slag for road construction
1995	Enactment of JIS A 6206 Ground granulated blast-furnace slag for concrete
1997	Publication of the Recommendations for Practice of Concrete with Blast Furnace Slag Fine Aggregate (Draft) (by the Architectural Institute of Japan)
1997	Enactment of JIS A 5011-1 Slag aggregate for concrete - Part 1: Blast furnace slag aggregate

2000

2000	Publication of the Guidebook for the Use of Steelmaking Slag in Port Construction (by the Coastal Development Institute of Technology and the Nippon Slag Association)
2001	Selection of blast-furnace slag cement for the first time as the first designated procurement item under the Act on Promoting Green Procurement
2003	Publication of the Recommendations for Design and Construction of Concrete Structures Using Electric Arc Furnace Oxidizing Slag Aggregate (by the Japan Society of Civil Engineers)
	Enactment of JIS A 5011-4 Slag aggregate for concrete: Electric arc furnace oxidizing slag aggregate
2005	Publication of the Recommendations for Design and Construction of Concrete Structures Using Electric Arc Furnace Oxidizing Slag Aggregate (Draft) (by the Architectural Institute of Japan)
2007	Publication of the Technical Manual for the Utilization of Granulated Slag in Ports and Airports (by the Coastal Development Institute of Technology)
2008	Enactment of JSTM H 8001 Steelmaking Slag Crushed Stone for Civil Engineering Works (by the Japan Testing Center for Construction Materials)
	Publication of the Handbook for Utilizing Converter Steelmaking Slag in Marine Areas (by the Japan Iron and Steel Federation)
	Publication of the Technical Manual for Steel Slag Hydrated Matrix (Revised Version) (by the Coastal Development Institute of Technology)
2013	Revision of JIS A 6206 Ground granulated blast-furnace slag for concrete
	Publication of the Recommendations for Practice of Concrete with Blast Furnace Slag Fine Aggregate (by the Architectural Institute of Japan)
2015	Publication of the Guidelines for the Design and Construction of Iron and Steel Slag Road Base Course (by the Public Works Research Center)
	Publication of the Technical Manual for the Use of Steelmaking Slag in Ports, Airports, and Coastal Areas (by the Coastal Development Institute of Technology)
2016	Revision of JSTM H 8001 Steelmaking Slag Crushed Stone for Civil Engineering Works (by the Japan Testing Center for Construction Materials)
2017	Publication of the Recommendation for Design and Practice of Reinforced Concrete Building with Portland Blast-Furnace Slag Cement or Ground Granulated Blast-Furnace Slag (Draft) (by the Architectural Institute of Japan)
	Publication of the Technical Manual for the Utilization of Calcia-Modified Soil in Ports, Airports, and Coastal Areas (by the Coastal Development Institute of Technology)
2018	Revision of JIS A 5011-1 Slag aggregate for concrete - Part 1: Blast furnace slag aggregate
	Revision of JIS A 5011-4 Slag aggregate for concrete - Part 4: Electric arc furnace oxidizing slag aggregate
	Revision of JIS A 5015 Iron and steel slag for road construction
	Publication of the Recommendations for Design and Construction of Concrete Using Ground Granulated Blast-Furnace Slag (by the Japan Society of Civil Engineers)
	Publication of the Recommendations for Design and Construction of Concrete Structures Containing High-Volume Mineral Admixtures (Draft) (by the Japan Society of Civil Engineers)
2019	Publication of the Guideline on Design, Manufacture and Construction of Methods of Precast Concrete with Blast-Furnace Slag Sand (Draft) (by the Japan Society of Civil Engineers)