

NTPC Ltd.
Rihand Super Thermal Power Project
REFERENCE QUALITY PLAN FOR BULL RING SEGMENTS (BRS) (Annex-II)

SI No	Components & Operation	Characteristics	Class	Type Of Check	Quantum Of Check	Reference Documents	Acceptance Norms	Format of record	Agency			Remarks
									P	W	V	
1.0	Raw material											
1.1	Moulding sand	Physical	Minor	Size distribution	Each batch	Vendor std.	Vendor std.	Lab record	1	-	2	
1.2	Ferrous alloys	Chemical	Major	Melting recovery	Each batch	Vendor std.	Vendor std.	Lab record	1	-	2	
1.3	Scrap	Chemical	Minor	Melting recovery	Each batch	Vendor std.	Vendor std.	Lab record	1	-	2	
2.0	IN PROCESS INSPECTION											
2.1	Melting	Temp.control	Critical	Chart record	Each heat	Vendor std.	Vendor std.	Log sheet	1	-	2	
		Chemical test	Critical	Chemical analysis	Each melt	Vendor std.	Vendor std.	Test report	1	-	2	
		Pouring	Critical	Observation	Each heat	Vendor std.	Vendor std.	Log sheet	1	-	2	
2.2	BRS castings	Heat treatment	Critical	Observation	Each H/T batch	Vendor std.*	Vendor std.	H/T charts	1	-	2	
		Microstructure	Critical	Microstructure	Vendor std.	Vendor std.	Vendor std.	H/T charts	1	-	2	
3.0	FINAL INSPECTION AND TESTING											
3.1	BRS castings	Visual	Critical	Visual inspection	100%	Vendor std.	Vendor std.	Inspection report	1	2	2	
		Dimensional-trial basis	Critical	Assembly on test bowl	100%	As per drg.	As per drg.	Test certificate	1	2		20% random by 2
		Hardness test	Critical	Chart record	1BRS from each set	Vendor std.	Min.550 BHN	Test certificate	1	2	2	20% random by 2
		Indentification	Critical	Verification	Each set	Vendor std.	Vendor std. (**)	Test certificate	1	2	2	

1- Agency 2 - NTPC P - Perform by W - witness by V - Verified by

* Heat treatment: Heat between 980 to 1060° C, hold for 4 to 5 hours and air quenched

** Serial number and set number will be painted on working face of each casting of the set.

Note: This is reference quality plan, vendor has to submit own manufacturing quality plan for NTPC approval before start of manufacture as vendor has to unequivocally guarantee of item as per NTPC specification

Vendor

Indenter

FQA