

1	Valve cooling Equipment	Quantity at Vizag
1.1	Raw water pump & Motor	1 No.
1.2	Fine water pump & Motor	2 No.s
1.3	De-ionising resin for one complete replacement	1 Set per Block
1.4	Non-return Valve-each type & size	1 Set
1.5	Make up pump & motor	1 Set
1.6	Fine filter with fitment, hardware and accessories	2 Sets
1.7	Coarse filter with fitment, hardware and accessories	2 Sets
1.8	De-oxygenising resin for one complete replacement	1 Set
1.9	Cooling fan with drive motor, fittings and accessories	10% of population or 5 Nos, whichever is higher
1.10	Biocides	1 lot
1.11	Control Modules for each type and function of Valve cooling system	1 Set
1.12	Set of valve hall ventilation control devices and modules	1 Set
1.13	Motor operated Valve of each type	1 No
1.14	Pump shaft seal of each type of pump	2 Sets
1.15	Rings & Gaskets of each type	2 Sets
1.16	Contactors/ starters, relays, timers, solenoids, fuses, switches, MCBs of each type & rating	10% of population
1.17	PLC loaded with program along with configuration software	1 Set
1.18	Flow meter/ sensor of each type	2 Sets
1.19	Pressure gauge of each type	2 Sets
1.20	Temperature sensors of each type	2 Sets
1.21	Conductivity sensors	2 Sets
1.22	Indicating instruments of each type	2 Sets
1.23	Valve of each type and size	2 Sets
1.24	Couplings of various sizes & types	2 Sets
1.25	Clamps and fixing material	2 Sets
1.26	Heat exchanger fan with motor	1 Set
1.27	Chemical Dosing System pump assembly	1 No.
1.28	Pressure transducer of each type	2 No.
1.29	Solenoid valves of each size & type	2 No.
1.30	Float valve assembly of each type	2 No.

1.31	Spray nozzles, Grommets & other mechanical spares	10 % of population
1.32	Level Switches & Level transducer of each type	2 No.
1.33	Gas pressure regulators of each type	2 No.
1.34	Control Transformer of each type	2 No.
1.35	Air Pump of each type	1 No.
1.36	Trip amplifier of each type	1 No.
1.37	Set of spares for Cooling Tower	1 No.
1.38	Power Supply Moule	2 No.
1.39	Heaters	1 No.

Note: Scope of supply of spares will be decided at the time of detailed engineering in line with the supply of main valve cooling equipment and applicability thereof.