

BREAK-UP OF MANDATORY SPARES (SS157)

S. No.	Description (as specified in BPS)	Unit	Jeypore substation	Purnea substation
1.	220/132kV Transformer			
a.	245KV, 1250A RIP BUSHING WITH METAL PARTS AND GASKETS	EA	-	1
b.	145KV, 1250A RIP BUSHING WITH METAL PARTS AND GASKETS	EA	-	1
c.	36kV, 2000A Bushing with metal parts and gaskets for Transformer	EA	-	1
d.	SPARES INSULATING OIL TO BE HANDED OVER TO OWNER AFTER COMMISSIONING	KL	-	10
e.	Buchholz Relay (Main Tank) complete with float and contacts for Transformer	SET	-	1
f.	Magnetic Oil Level Gauge	EA	-	1
g.	Pressure Relief Device	EA	-	1
h.	Starters, contactors, switches and relays for electrical control panels of 220kV T/F (one set of each type)	SET	-	1
i.	Oil flow indicator for 220kV T/F with flow switch	SET	-	1
j.	OTI complete with contacts & sensing device	SET	-	1
k.	Local winding temperature indicator (WTI) with contact	EA	-	1
l.	Cooler fan with motor for 220kV Transformer	EA	-	1
m.	Oil cooler pump with motor for 220kV Transformer	SET	-	1
n.	Digital RTCC relay (loose supply)	EA	-	1
2.	245kV Circuit Breaker			
a.	Complete Pole (Phase) of circuit Breaker including Pole column, interrupter, operating mechanism, marshaling box, corona ring (if applicable) but without support structure (245kV, 1600A, 50kA)	Pole (No)	-	1
b.	Rubber Gasket "O Ring" and seals (complete replacement for 1-ph of CB)	Set	-	1
c.	Trip coils with resistors for 1-ph of CB (as applicable)	Set	-	2
d.	Closing coils with resistors for 1-ph of CB (as applicable)	Set	-	1
e.	Terminal Pads for 1-ph of CB (One No of each type)	Set	-	2
f.	Terminal Connectors for CB (One no of each type)	Set	-	2
g.	Molecular filter for 1-ph of CB	No	-	2
h.	Corona Rings for 1-ph of CB (if applicable)	Set	-	1
i.	Relay, Power contactors, switches, fuse units, limit switches, push buttons, timers & MCB etc (1 No of each type)	Set	-	1

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j.	Pressure Switch of each type for 1-ph of CB	Set	-	1
k.	Auxiliary Switch assembly for 1-ph of CB	Set	-	1
l.	Operation Counter for 1-ph of CB	No	-	1
3.	245kV Isolator			
a.	One Complete Pole including support insulator, earthswitch, Motor operating mechanism (MOM) but excluding support structure. (245kV, 1600A, 50kA with one E/S)	Pole (No.)	-	1
b.	Copper contact fingers for male & female contact (for 1-ph of isolator)	Set	-	2
c.	Open/Close contactor assembly, timers, key interlock, push button switches & Auxiliary switches (1 No of each type)	Set	-	1
d.	Limit Switch (for 1-ph of isolator)	Set	-	2
e.	Terminal Pads (for 1-ph of isolator) (One No of each type)	Nos.	-	3
f.	Corona Shield rings (for 1-ph of isolator) (if applicable)	Set	-	3
g.	Terminal connectors for isolator (1 no. of each type)	Set	-	3
5.	245kV Current Transformer			
a.	245kV, 1600A, 50kA Current Transformer with 120% extended current rating & terminal connector (of each type)	Nos	-	1
6.	Bus Post insulator			
(i)	400KV Bus Post insulator			
	Bus Post Insulator Assembly (Complete)	Set	2	
(ii)	245KV Bus Post insulator			
	Bus Post Insulator Assembly (Complete)	Set	-	2
(iii)	145KV Bus Post insulator			
	Bus Post Insulator Assembly (Complete)	Set	-	2
7.	Surge Arrester			
(i)	336kV Surge Arrester			

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a.	Complete LA with insulating base, surge counter/monitor & terminal connector (of each type)	Nos.	1	-
b.	Surge Counter/Monitor	Nos.	2	-
(ii)	216kV Surge Arrester			
a.	Complete LA with insulating base, surge counter/monitor & terminal connector (of each type)	Nos.	-	1
b.	Surge Counter/Monitor	Nos.	-	2
(iii)	120kV Surge Arrester			
a.	Complete LA with insulating base, surge counter/monitor & terminal connector (of each type)	Nos.	-	1
b.	Surge Counter/Monitor	Nos.	-	2
4.	Control & Protection System			
(i)	Reactor Protection Panel			
a.	Reactor Differential Protection	Set	1	-
b.	REF with non-linear resistor	Set	1	-
c.	Reactor Back up impedance	Set	1	-
(ii)	Transformers Protection Panel			
a.	Transformer Differential Protection	Set	-	1
b.	REF with non-linear resistor	Set	-	1
c.	Transformer Back up impedance	Set	-	1
(iii)	Common Spares			
a.	LBB Relay (if standalone)	No.	1	1
b.	Auxiliary & Trip relays (installed in CRP Panel)	No.	2 (each type)	2 (each type)
5.	Substation Automation/SCADA System			
a.	Bay Control Unit (IED) of Main System	No	-	1
b.	Ethernet switch suitable for 19" Rack Mounting:	No	-	1

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	Ports: 24 Fiber Optic Ports			
6.	Fire Protection system			
a.	Deluge Valve	Set	1	1
b.	Smoke/Heat Detectors	No.	1	-
c.	Pressure Gauge	No.	1	1
d.	Pressure Switch	No.	1	1
7.	Clamps and connectors			
a.	Each type (excluding equipments)	No.	1	1