



SCHEDULE OF EQUIPMENT

ITEM No.	DESCRIPTION	kV	QTY.
1	SF6 CIRCUIT BREAKER (2000A)	220	5
2	CENTRE BREAK 3-Ph. MOTOR OPERATED ISOLATOR WITHOUT EARTH SWITCH (1250A)	220	12
3	CENTRE BREAK 3-Ph. MOTOR OPERATED ISOLATOR WITH ONE EARTH SWITCH (1250A)	220	4
4	CURRENT TRANSFORMER	220	15
5	CAPACITOR VOLTAGE TRANSFORMER	220	12
6	LIGHTNING ARRESTER 198kV, 10kA	198	12
7	POWER TRANSFORMER (100MVA, 220/66-33/11kV 3-phase)	220/23	2
8	BUS POST INSULATOR	220	8
9	WAVE TAP (0.5 mH, 1600A)	220	2
10A	NCT 17.5kV (MOUNTED IN TRANSFORMER BUSHING)	220	2
10B	NCT 17.5kV (MOUNTED IN TRANSFORMER BUSHING)	33	2
11	SF6 CIRCUIT BREAKER (2000A), 3-POLE	33	3
12	VACUUM CIRCUIT BREAKER (800A), 3-POLE	33	10
13	DOUBLE BREAK ISOLATOR WITHOUT EARTH SWITCH (2000A)	33	4
14	DOUBLE BREAK ISOLATOR WITHOUT EARTH SWITCH (800A)	33	12
15	DOUBLE BREAK ISOLATOR WITH ONE EARTH SWITCH (2000A)	33	2
16	DOUBLE BREAK ISOLATOR WITH ONE EARTH SWITCH (800A)	33	10
17	TANDEM TYPE ISOLATOR WITHOUT EARTH SWITCH (2000A)	33	2
18	TANDEM TYPE ISOLATOR WITHOUT EARTH SWITCH (800A)	33	10
19	CURRENT TRANSFORMER (2000-1000/1/1/1/1A)	33	9
20	CURRENT TRANSFORMER (800-400/1/1/1/1A)	33	30
21	VOLTAGE TRANSFORMER	33	36
22	LIGHTNING ARRESTER 30kV, 10kA, GAPLESS TYPE	30	36

NOTE:-
1. 22kV & 33kV BUS SHALL BE OF TINI ZEBRA AND QUAD ZEBRA CONDUCTORS RESPECTIVELY.
--- INDICATES EXISTING (NOT IN BREL SCOPE)

MINIMUM CLEARANCE TABLE (AS PER IEC 71/2)	22kV	33kV
PHASE TO PHASE (PP)	2100	350
PHASE TO EARTH (PE)	2100	350
SECTION CLEARANCE (SC)	4300	2800
GROUND CLEARANCE (AS PER I.E. RULE)	5500	3800
TO NEAREST PART NOT AT EARTH POTENTIAL OF AN INSULATOR SUPPORTING LIVE CONDUCTOR	2440	2440

REVISIONS

NO.	DATE	REVISION
01	11.10.07	ISSUED FOR PERMIT TO WORK
02	25.10.07	ISSUED FOR PERMIT TO WORK
03	25.10.07	ISSUED FOR PERMIT TO WORK
04	11.10.07	ISSUED FOR PERMIT TO WORK

PROJECT INFORMATION

PROJECT NO. B-3-22-316-011

DESCRIPTION SINGLE LINE DIAGRAM OF 220/33kV S/S AT MASUD NORTH

LOA NO. F/DTL/202/MGR (TRP) /5004/7-6/2002 DATED 30/12/04

DESIGNER/ENGINEER DR. DEEPI TRANSCO LIMITED

CHECKER/ENGINEER DR. DEEPI TRANSCO LIMITED

SCALE 1 : 500

DATE 04/07/2008

PROJECT NO. 04

DATE 04/07/2008