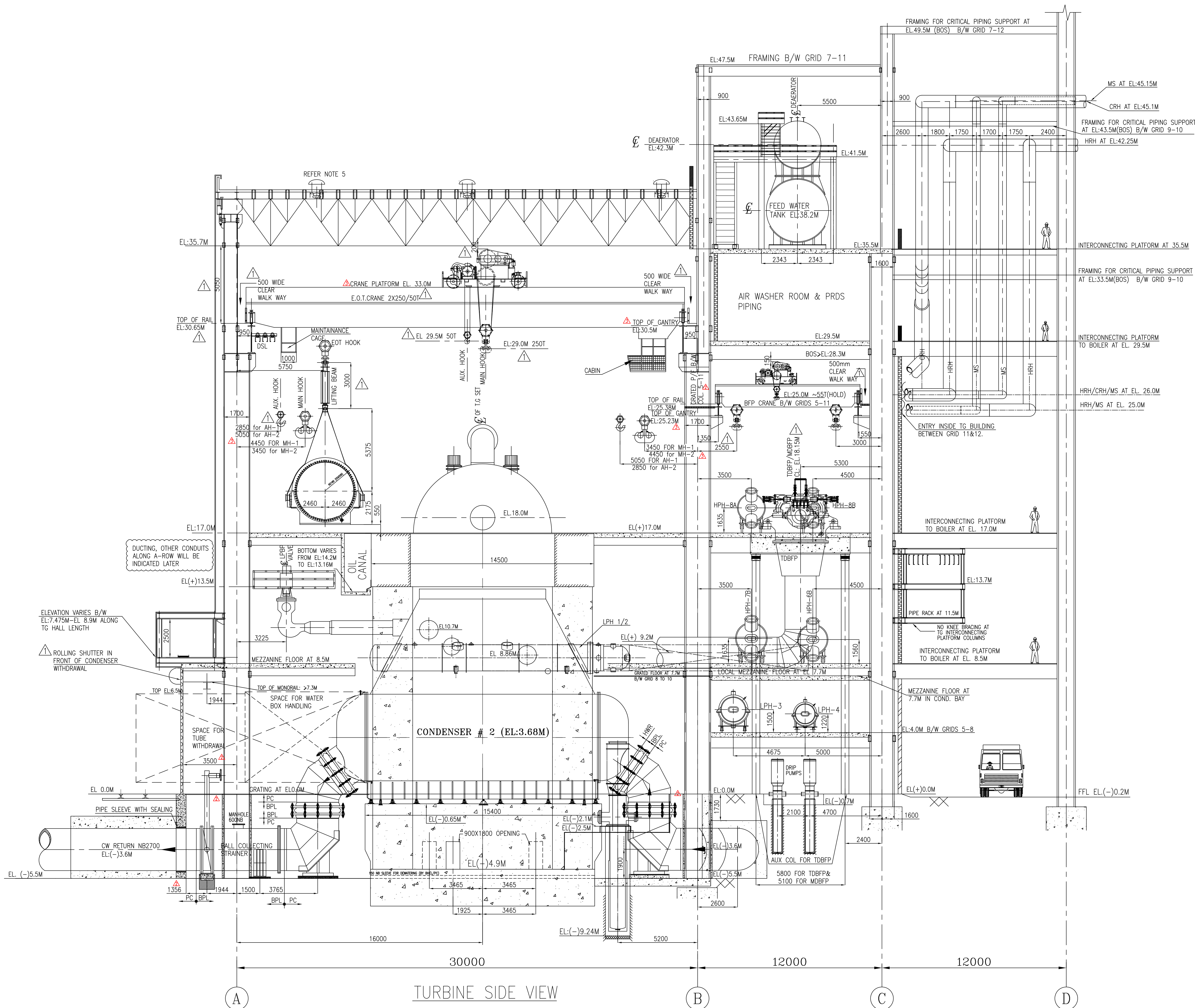
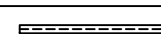
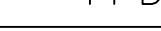
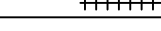




TURBINE SIDE VIEW

REFERENCE DRGS:			
SL No.	TITLE	NUMBER	UNIT
1.	TG EQUIPMENT PLAN AT EL 0.0 M	PE-DG-423-100-M003	PEM
2.	TG EQUIPMENT PLAN AT EL8.5 M	PE-DG-423-100-M004	PEM
3.	TG EQUIPMENT PLAN AT EL17.0 M	PE-DG-423-100-M005	PEM
4.	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-423-100-M006	PEM

<u>LEGENDS</u>	
	VERTICAL BRACING
	FIRE PROOF DOOR
	GRATING
	CHEQUERED PLATE
	REMOVABLE
	HAND RAILING
	FIRE BARRIER WALL

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TO HALL FINISHED FLOOR ELEVATION OF EL 0.0M.
3. ALL THE SIZES AND LOCATION OF COLUMNS OF TG DECK ARE SUBJECT TO FINALIZATION AFTER CIVIL DESIGN.
4. SIZES OF ALL TG BUILDING MAIN AND AUXILIARY COLUMNS ARE SUBJECT TO CIVIL DESIGN.
5. DETAILS OF TG BUILDING ROOF EXHAUSTERS ARE INDICATIVE. FOR DETAILS REFER RESPECTIVE VENTILATION AREA DRAWING.

<u>CUSTOMER:</u> 	TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED 5th Floor, Western Wing, NPKRR Maaligai, 144, Anna Salai, Chennai-600002				
<u>CONSULTANT:</u> FICHTNER INDIA	Fichtner Consulting Engineers (India) Pvt Ltd. Menon Eternity, 9th Floor, No.165, St. Mary's Road, Alwarpet, Chennai-600018				
<u>PROJECT:</u> 	1X800 MW TANGEDCO NORTH CHENNAI TPP STAGE III-BTG BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA				
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0	DEPT CODE M	DRN WKS DESN CHKD APPD	NAME AK BK AGARWAL JACOB JAMES	SIGN Sd/- Sd/- Sd/- Sd/-	DATE 18.04.2017 18.04.2017 18.04.2017 18.04.2017

JOB No.		423					
STATUS		CONTRACT					
DISTRIBUTION							
TD							
No.OFF							
REV	DATE	ALTD	CHD	APPD			
01	30.08.2016	VKS Sd/-	VJ Sd/-	BKA Sd			

REV	DATE	ALTD	CHD	APPD	REV	DATE	ALTD	CHD	APPD
03	21.10.2017	RC	BA	JJ	02	24.10.2016	VJ	BA	JJ
1.	CHANGES MADE ARE MARKED AS △				1.	REVISED INLINE WITH MEETING RESOLUTION DTD. 28.09.2016 & 29.09.2016. CHANGES MADE ARE MARKED AS △			

TITLE										CROSS SECTION OF MAIN PLANT (TG BUILDING)									
					DEPT.		SCALE 1:150			DRAWING No.									
					SIGN					PE-DG-423-100-M007									
					DATE					SHEET 1 OF 1 REV 3									

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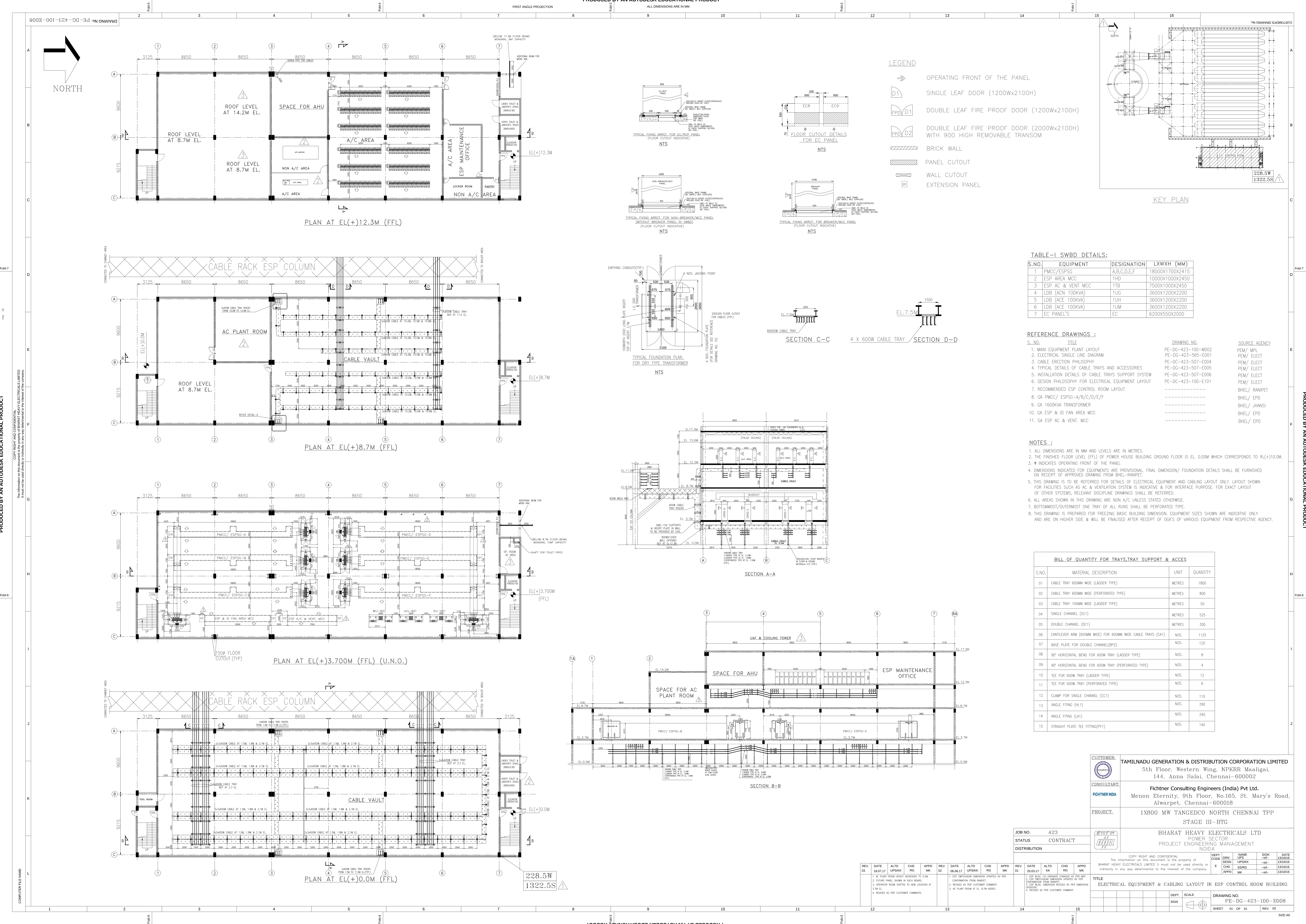


TABLE-I SWBD DETAILS:

S.NO.	EQUIPMENT	DESIGNATION	LXWXH (MM)
1	PMCC/ESPSG	A,B,C,D,E,F	1800X1700X2415
2	ESP AREA MCC	1HD	1000X1000X2450
3	ESP AC & VENT MCC	1TB	7500X1000X2450
4	LDB (ACN 100KVA)	1UG	3600X1200X2200
5	LDB (ACE 100KVA)	1UH	3600X1200X2200
6	LDB (ACE 100KVA)	1UM	3600X1200X2200
7	EC PANEL'S	EC	6200X550X2000

REFERENCE DRAWINGS :

S. NO.	TITLE	DRAWING NO.	SOURCE AGENCY
1.	MAIN EQUIPMENT PLANT LAYOUT	PE-DG-423-100-M002	PEM/ MPL
2.	ELECTRICAL SINGLE LINE DIAGRAM	PE-DG-423-565-E001	PEM/ ELECT
3.	CABLE ERECTION PHILOSOPHY	PE-DG-423-507-E004	PEM/ ELECT
4.	TYPICAL DETAILS OF CABLE TRAYS AND ACCESSORIES	PE-DG-423-507-E005	PEM/ ELECT
5.	INSTALLATION DETAILS OF CABLE TRAYS SUPPORT SYSTEM	PE-DG-423-507-E006	PEM/ ELECT
6.	DESIGN PHILOSOPHY FOR ELECTRICAL EQUIPMENT LAYOUT	PE-DG-423-100-E101	PEM/ ELECT
7.	RECOMMENDED ESP CONTROL ROOM LAYOUT		BHEL/ RANIPET
8.	GA PMCC/ ESPSG-A/B/C/D/E/F		BHEL/ EPD
9.	GA 1600KVA TRANSFORMER		BHEL/ JHANSI
10.	GA ESP & IO FAN AREA MCC		BHEL/ EPD
11.	GA ESP AC & VENT. MCC		BHEL/ EPD

- NOTES :
- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METRES.
 - THE FINISHED FLOOR LEVEL (FFL) OF POWER HOUSE BUILDING GROUND FLOOR IS EL. 0.00M WHICH CORRESPONDS TO RL(+10.00M).
 - * INDICATES OPERATING FRONT OF THE PANEL.
 - DIMENSIONS INDICATED FOR EQUIPMENTS ARE PROVISIONAL. FINAL DIMENSION/ FOUNDATION DETAILS SHALL BE FURNISHED ON RECEIPT OF APPROVED DRAWING FROM BHEL-RANIPET.
 - THIS DRAWING IS TO BE REFERRED FOR DETAILS OF ELECTRICAL EQUIPMENT AND CABLING LAYOUT ONLY. LAYOUT SHOWN FOR FACILITIES SUCH AS AC & VENTILATION SYSTEM IS INDICATIVE & FOR INTERFACE PURPOSE. FOR EXACT LAYOUT OF OTHER SYSTEMS, RELEVANT DISCIPLINE DRAWINGS SHALL BE REFERRED.
 - ALL AREAS SHOWN IN THIS DRAWING ARE NON A/C UNLESS STATED OTHERWISE.
 - BOTTOMMOST/OUTERMOST ONE TRAY OF ALL RUNS SHALL BE PERFORATED TYPE.
 - THIS DRAWING IS PREPARED FOR FREEZING BASIC BUILDING DIMENSION. EQUIPMENT SIZES SHOWN ARE INDICATIVE ONLY AND ARE ON HIGHER SIDE & WILL BE FINALISED AFTER RECEIPT OF OGA'S OF VARIOUS EQUIPMENT FROM RESPECTIVE AGENCY.

BILL OF QUANTITY FOR TRAYS, TRAY SUPPORT & ACCES

S.NO.	MATERIAL DESCRIPTION	UNIT	QUANTITY
01	CABLE TRAY 600MM WIDE (LADDER TYPE)	METRES	1800
02	CABLE TRAY 600MM WIDE (PERFORATED TYPE)	METRES	800
03	CABLE TRAY 100MM WIDE (LADDER TYPE)	METRES	50
04	SINGLE CHANNEL (SC1)	METRES	525
05	DOUBLE CHANNEL (DC1)	METRES	300
06	CANTILEVER ARM (850MM WIDE) FOR 600MM WIDE CABLE TRAYS (CA1)	NOS.	1125
07	BASE PLATE FOR DOUBLE CHANNEL(BP2)	NOS.	120
08	90° HORIZONTAL BEND FOR 600W TRAY (LADDER TYPE)	NOS.	8
09	90° HORIZONTAL BEND FOR 600W TRAY (PERFORATED TYPE)	NOS.	4
10	TEE FOR 600W TRAY (LADDER TYPE)	NOS.	12
11	TEE FOR 600W TRAY (PERFORATED TYPE)	NOS.	6
12	CLAMP FOR SINGLE CHANNEL (CC1)	NOS.	110
13	ANGLE FITTING (HL1)	NOS.	290
14	ANGLE FITTING (LA1)	NOS.	240
15	STRAIGHT PLATE TEE FITTING(PF1)	NOS.	140

CUSTOMER: **TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED**
5th Floor, Western Wing, NPKRR Maaligai,
144, Anna Salai, Chennai-600002

CONSULTANT: **Fichtner India**
Menon Eternity, 9th Floor, No.165, St. Mary's Road,
Alwarpet, Chennai-600018

PROJECT: **1X800 MW TANGEDCO NORTH CHENNAI TPP**
STAGE III-BTG

JOB NO. 423
STATUS CONTRACT
DISTRIBUTION

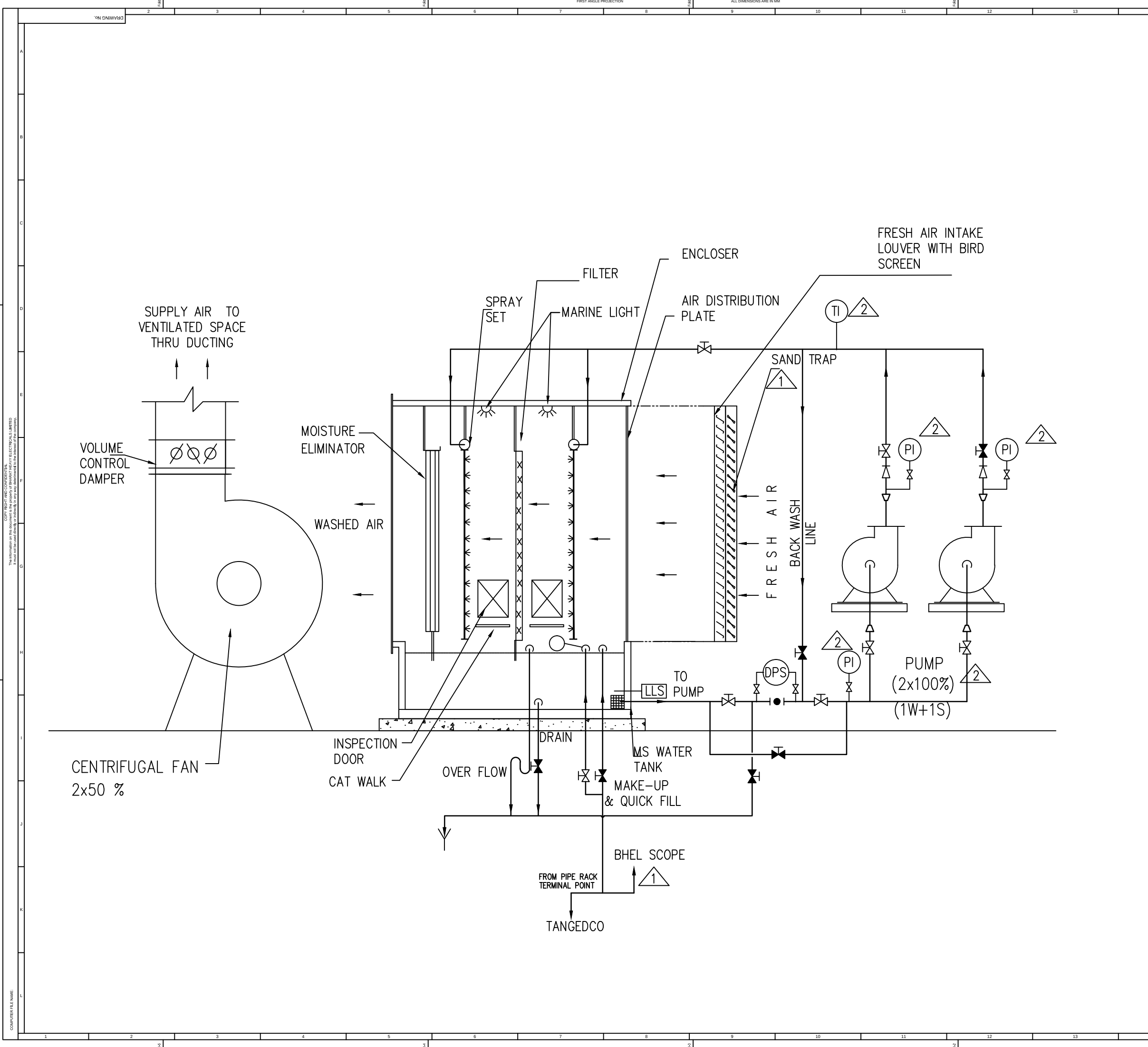
DEPT. CODE: **UPSRKK**
SIGN: **UPSRKK**
DATE: **13/10/16**

TITLE: **ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING**

DRAWING NO. **PE-DG-423-100-E008**

SHEET 01 OF 01

REV	DATE	ALTD	CHD	APPD	REV	DATE	ALTD	CHD	APPD	REV	DATE	ALTD	CHD	APPD
03	18.07.17	UPSRKK	RG	MK	02	06.06.17	UPSRKK	RG	MK	01	20.03.17	UPSRKK	RG	MK
1. 42° FAN ROOM HEIGHT INCREASED TO 3.5M.					1. ESP SMOKECUP TRANSFORMER UPGRADED AS PER CONFIRMATION FROM BHARAT.					1. ESP SMOKECUP TRANSFORMER UPGRADED AS PER CONFIRMATION FROM BHARAT.				
2. FUTURE PANEL SHOWN IN EACH BOARD.					2. REVISED AS PER CUSTOMER COMMENT.					2. ESP SMOKECUP TRANSFORMER UPGRADED AS PER CONFIRMATION FROM BHARAT.				
3. OPERATOR ROOM SHIFTS TO NEW LOCATION AT 3.7M EL.					3. AC PLANT ROOM AT EL. 3.7M LEVEL.					3. AC PLANT ROOM AT EL. 3.7M LEVEL.				
4. REVISED AS PER CUSTOMER COMMENTS					4. REVISED AS PER CUSTOMER COMMENT.					4. REVISED AS PER CUSTOMER COMMENT.				

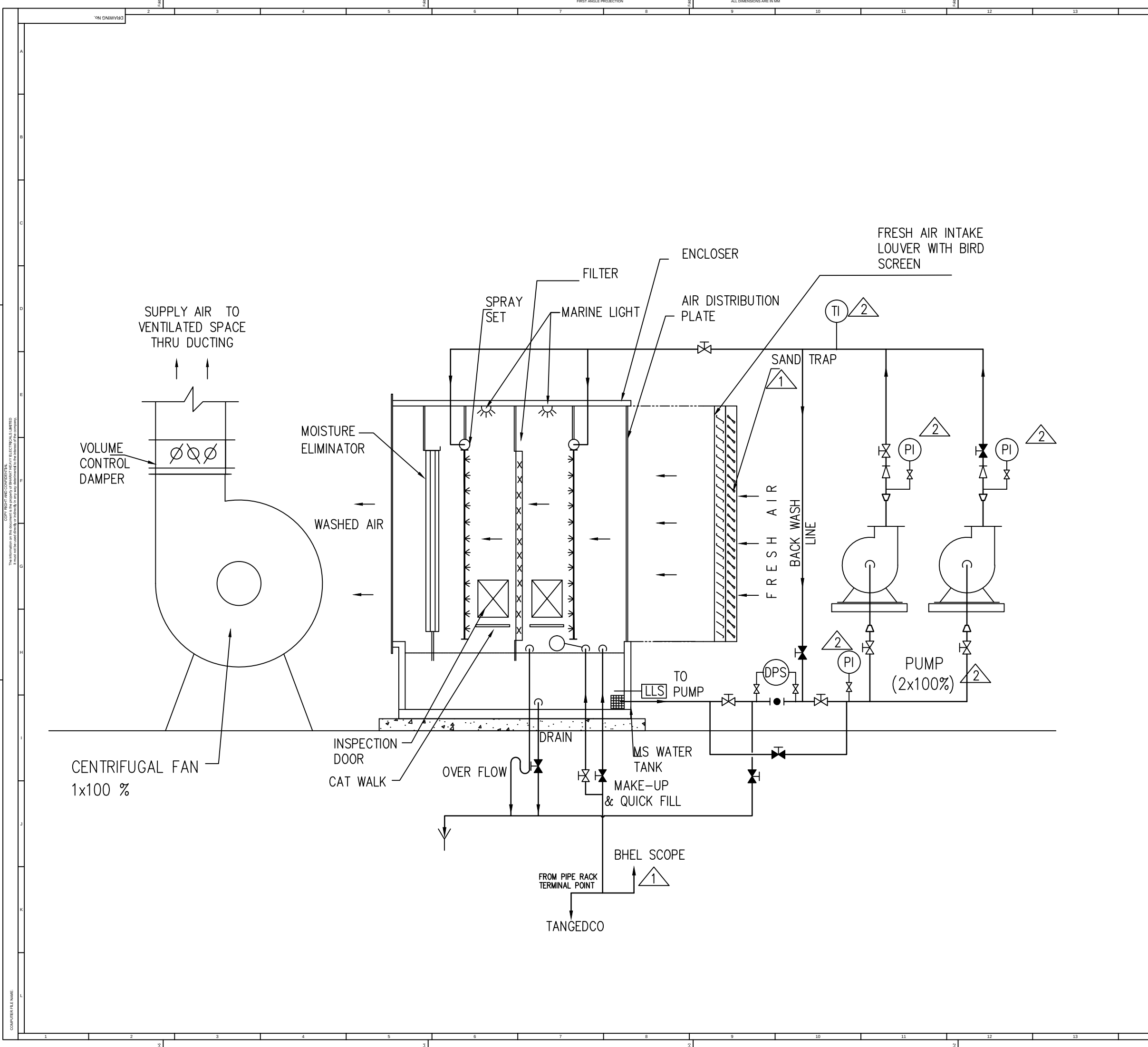


LEGEND

GATE VALVE	
GATE VALVE (NORMALLY CLOSED)	
CHECK VALVE	
POT-STRAINER	
SYPHON	
DRAIN	
PRESSURE INDICATOR	
TEMPERATURE INDICATOR	
LOW LEVEL SWITCH	
SUCTION SCREEN	
REDUCER/ EXPANDER	
DIFFERENTIAL PRESSURE SWITCH	

FOR TENDER PURPOSE ONLY

JOB NO.	423		CUSTOMER TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED						
STATUS	CONTRACT								
DISTRIBUTION									
			CONSULTANT FICHTNER INDIA FICHTNER CONSULTING ENGINEERS (INDIA) PRIVATE LIMITED MENON ETERNITY, 9TH FLOOR, NO.165, ST. MARY'S ROAD, ALWARPET, CHENNAI-600018, TAMIL NADU, INDIA						
			PROJECT 1x800 MW TANGEDCO NORTH CHENNAI TPP						
			BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NODA						
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REV.	DATE	ALTD	CHD	APPO	DEPT CODE	SCALE	NAME	SIGN	DATE
TITLE					P&ID FOR AIR WASHER				
DEPT					DRAWING NO.				
SIGN					PE-DG-423-554-A001				
SHEET					Page 677 of 679				



L E G E N D	
GATE VALVE	
GATE VALVE (NORMALLY CLOSED)	
CHECK VALVE	
POT-STRAINER	
SYPHON	
DRAIN	
PRESSURE INDICATOR	
TEMPERATURE INDICATOR	
LOW LEVEL SWITCH	
SUCTION SCREEN	
REDUCER/ EXPANDER	
DIFFERENTIAL PRESSURE SWITCH	

FOR TENDER PURPOSE ONLY

JOB NO. 423		STATUS CONTRACT		DISTRIBUTION	
REV.		DATE	ALTD	CHD	APPO
TITLE		P&ID FOR UAF			
DEPT.		SCALE	DRAWING NO. PE-DG-423-554-A002		
SHEET		Page 676 of 679			

CUSTOMER	TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED
CONSULTANT	FICHTNER CONSULTING ENGINEERS (INDIA) PRIVATE LIMITED MENON ETERNITY, 9TH FLOOR, NO.165, ST. MARY'S ROAD, ALWARPET, CHENNAI-600018, TAMIL NADU, INDIA
PROJECT	1x800 MW TANGEDCO NORTH CHENNAI TPP
CLIENT	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NODA

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DEPT. CODE	NAME	SIGN	DATE
DESIGN			
CHD			
APPO			

