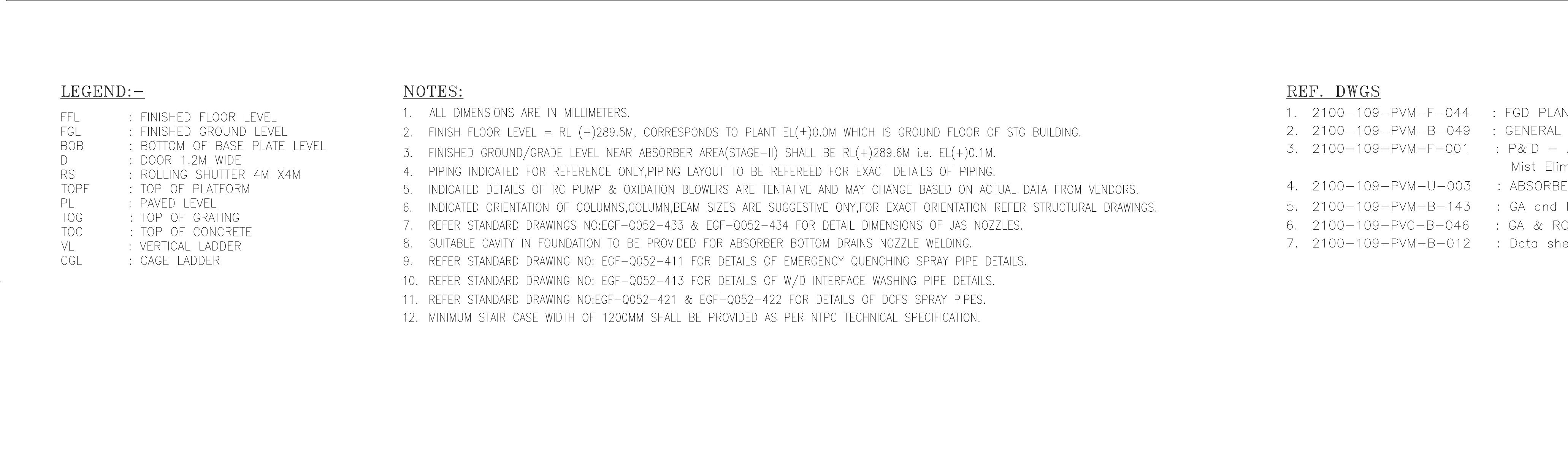
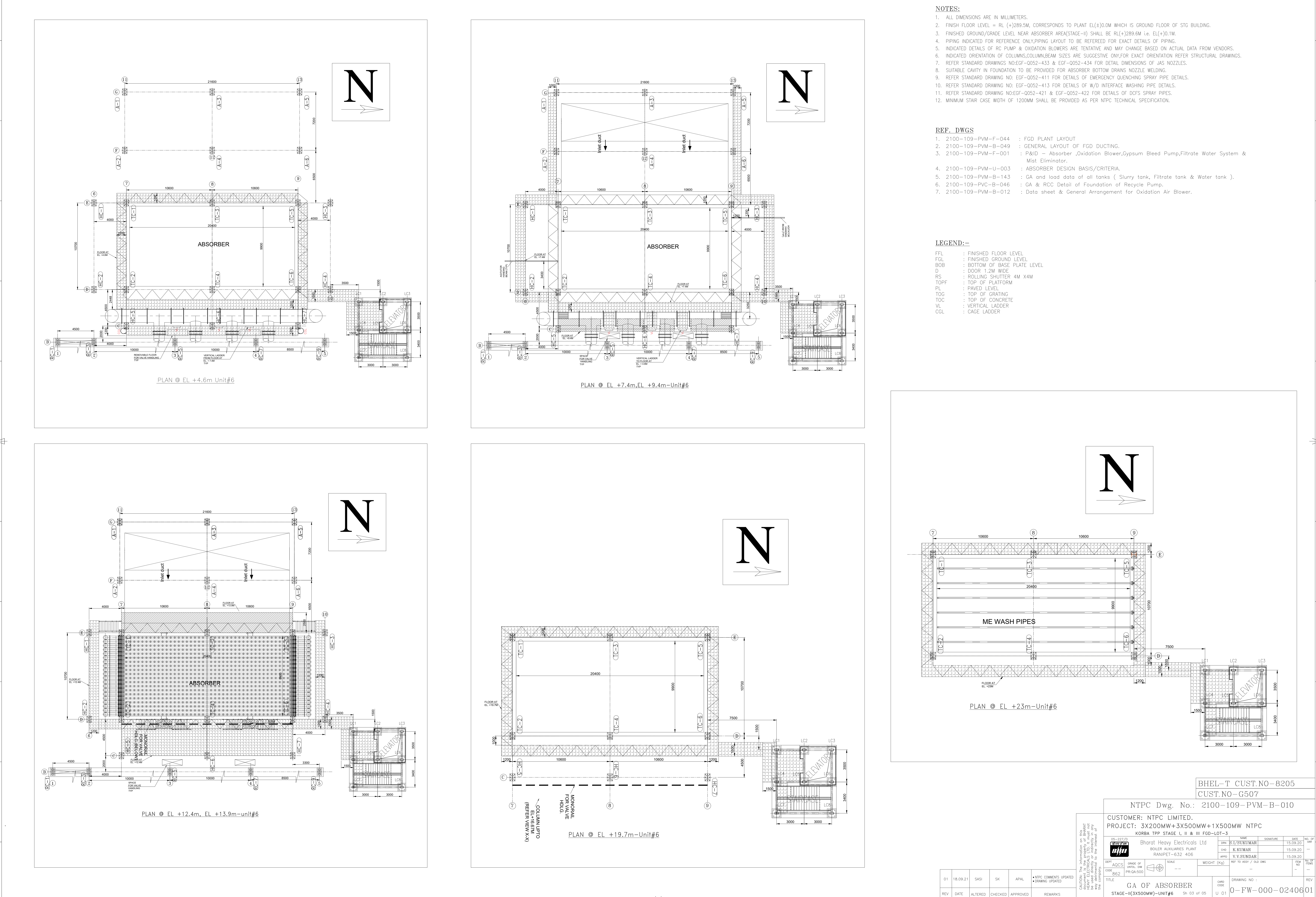




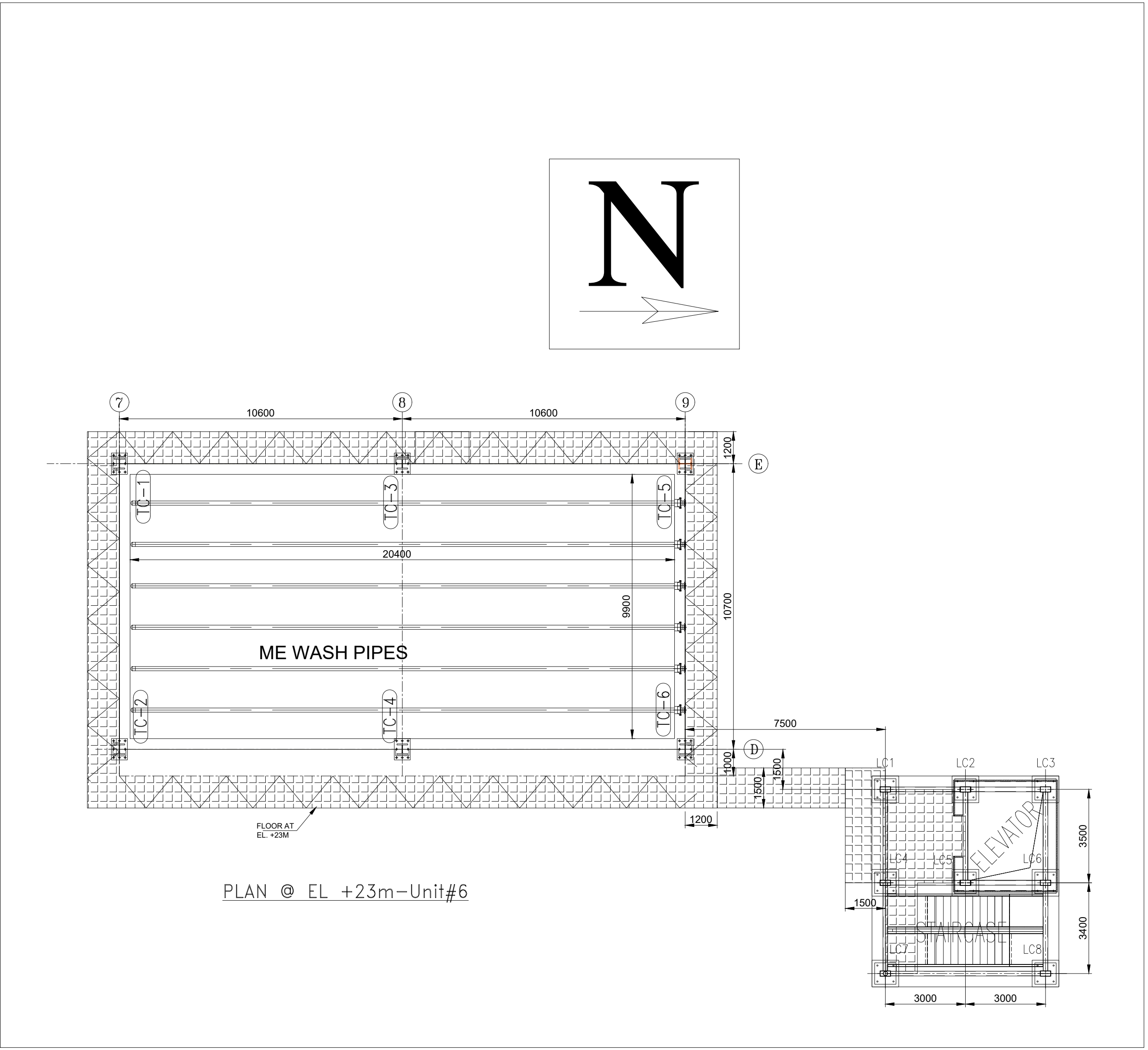
The information on this document is the property of BHAAC. It is to be used only for the purpose for which it was issued and is not to be used directly or indirectly in any way that may cause injury to any person or damage to any property.		BHEL-T CUST.NO-8205 CUST.NO-G507			
		NTPC Dwg. No.: 2100-109-PVM-B-010			
CUSTOMER: NTPC LIMITED. PROJECT: 3X2100MW+3X500MW+1X500MW NTPC KORBA TPP STAGE I, II & III FGD-LOT-3					
75-2272 		Bhatnagar Heavy Electricals Ltd BOILER AUXILIARIES PLANT RAIPET-632 40B		NAME S/S/SHUKLAH	
		CHN K.KUMAR		DATE 15.09.20	
		APPD V.SUNDAR		DATE 15.09.20	
DESG AOC5	GRADE OF WELD JOINT PR:GA500	SCALE 	WEIGHT (KG) --	REF TO ASSY / OLD DWG --	NO OF SHEET
CUST 862				REM --	NO OF SHEET
TITLE GA OF ABSORBER			CWD CODE U 01	DRAWING NO : 0-FW-000-0240601	REV --
STAGE-II(3X500MW)-UNIT#6			Sh 01 of 05		



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS.
 2. FINISH FLOOR LEVEL = RL (+)289.5M, CORRESPONDS TO PLANT EL(+30.0M WHICH IS GROUND FLOOR OF STG BUILDING.
 3. FINISHED GROUND/GRADE LEVEL NEAR ABSORBER AREA(STAGE-II) SHALL BE RL(+289.6M i.e. EL(+30.1M.
 4. PIPING INDICATED FOR REFERENCE ONLY,PIPING LAYOUT TO BE REFERRED FOR EXACT DETAILS OF PIPING.
 5. INDICATED DETAILS OF RC PUMP & OXIDATION BLOWERS ARE TENTATIVE AND MAY CHANGE BASED ON ACTUAL DATA FROM VENDORS.
 6. INDICATED ORIENTATION OF COLUMNS,COLUMN,BEAM SIZES ARE SUGGESTIVE ONLY, FOR EXACT ORIENTATION REFER STRUCTURAL DRAWINGS.
 7. REFER STANDARD DRAWINGS: NO:EGF-0052-433 & EGF-0052-434 FOR DETAIL DIMENSIONS OF WAS NOZZLES.
 8. SUITABLE CAVITY IN FOUNDATION TO BE PROVIDED FOR ABSORBER BOTTOM DRAINS NOZZLE WELDING.
 9. REFER STANDARD DRAWING NO: EGF-0052-411 FOR DETAILS OF EMERGENCY QUENCHING 'SPRAY' PIPE DETAILS.
 10. REFER STANDARD DRAWING NO: EGF-0052-413 FOR DETAILS OF W/D INTERFACE WASHING PIPE DETAILS.
 11. REFER STANDARD DRAWING NO:EGF-0052-421 & EGF-0052-422 FOR DETAILS OF DCSF SPRAY PIPES.
 12. MINIMUM STAIR CASE WIDTH OF 1200MM SHALL BE PROVIDED AS PER NTPC TECHNICAL SPECIFICATION.

- REF. DWGS
1. 2100-109-PVM-F-044 : FGD PLANT LAYOUT
 2. 2100-109-PVM-B-049 : GENERAL LAYOUT OF FGD DUCTING.
 3. 2100-109-PVM-F-001 : P&ID - Absorber ,Oxidation Blower,Gypsum Bleed Pump,Filtrate Water System & Mist Eliminator.
 4. 2100-109-PVM-U-003 : ABSORBER DESIGN BASIS/CRITERIA.
 5. 2100-109-PVM-B-143 : GA and load data of all tanks (Slurry tank, Filtrate tank & Water tank).
 6. 2100-109-PVC-B-046 : GA & RCC Detail of Foundation of Recycle Pump.
 7. 2100-109-PVM-B-012 : Data sheet & General Arrangement for Oxidation Air Blower.

- LEGEND:-
- FFL : FINISHED FLOOR LEVEL
 - FGL : FINISHED GROUND LEVEL
 - BOB : BOTTOM OF BASE PLATE LEVEL
 - D : DOOR 1.2M WIDE
 - RS : ROLLING SHUTTER 4M X4M
 - TOPF : TOP OF PLATFORM
 - PL : PAVED LEVEL
 - TOG : TOP OF GRATING
 - TOC : TOP OF CONCRETE
 - VL : VERTICAL LADDER
 - CGL : CAGE LADDER



BHEL-T CUST.NO-8205

CUST.NO-G507

NTPC Dwg. No.: 2100-109-PVM-B-010

CUSTOMER: NTPC LIMITED.

PROJECT: 3X200MW+3X500MW+1X500MW NTPC

KORBA TPP STAGE I, II & III FGD-LOT-3

05-227/0

Bharat Heavy Electricals Ltd

DRN

S.U/SUKUMAR

DATE

15.09.20

CHK

K.KUMAR

DATE

15.09.20

APPD

V.V.SUNDAR

DATE

15.09.20

DEPT

AQ/C/S

GRADE OF

UNTL. DM

PRQA/S00

SCALE

--

WEIGHT

(Kg)

REF TO ASSY / OLD DWG

--

ITEM

NO

REV

01

TITLE

GA OF ABSORBER

STAGE-II(3X500MW)-UNIT#6

Sh 03 of 05

U 01

DRAWING NO :

0-FW-000-02406

REV

01

CAUTION: The information on this drawing is the property of Bharat Heavy Electricals Ltd. It is not to be used for any other purpose without the written permission of the company.

01

18.09.21

SASI

SK

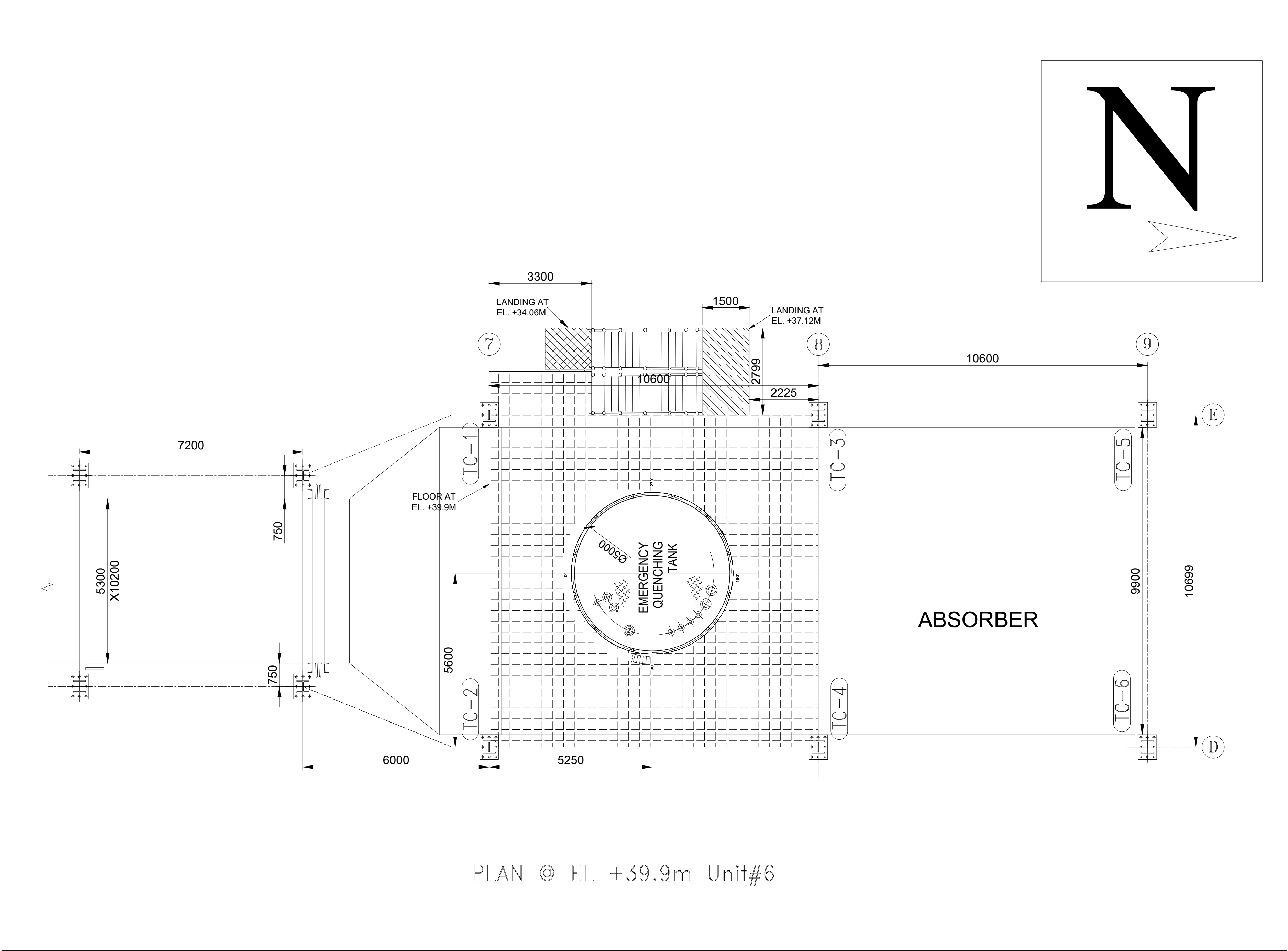
APAL

NTPC COMMENTS UPDATED

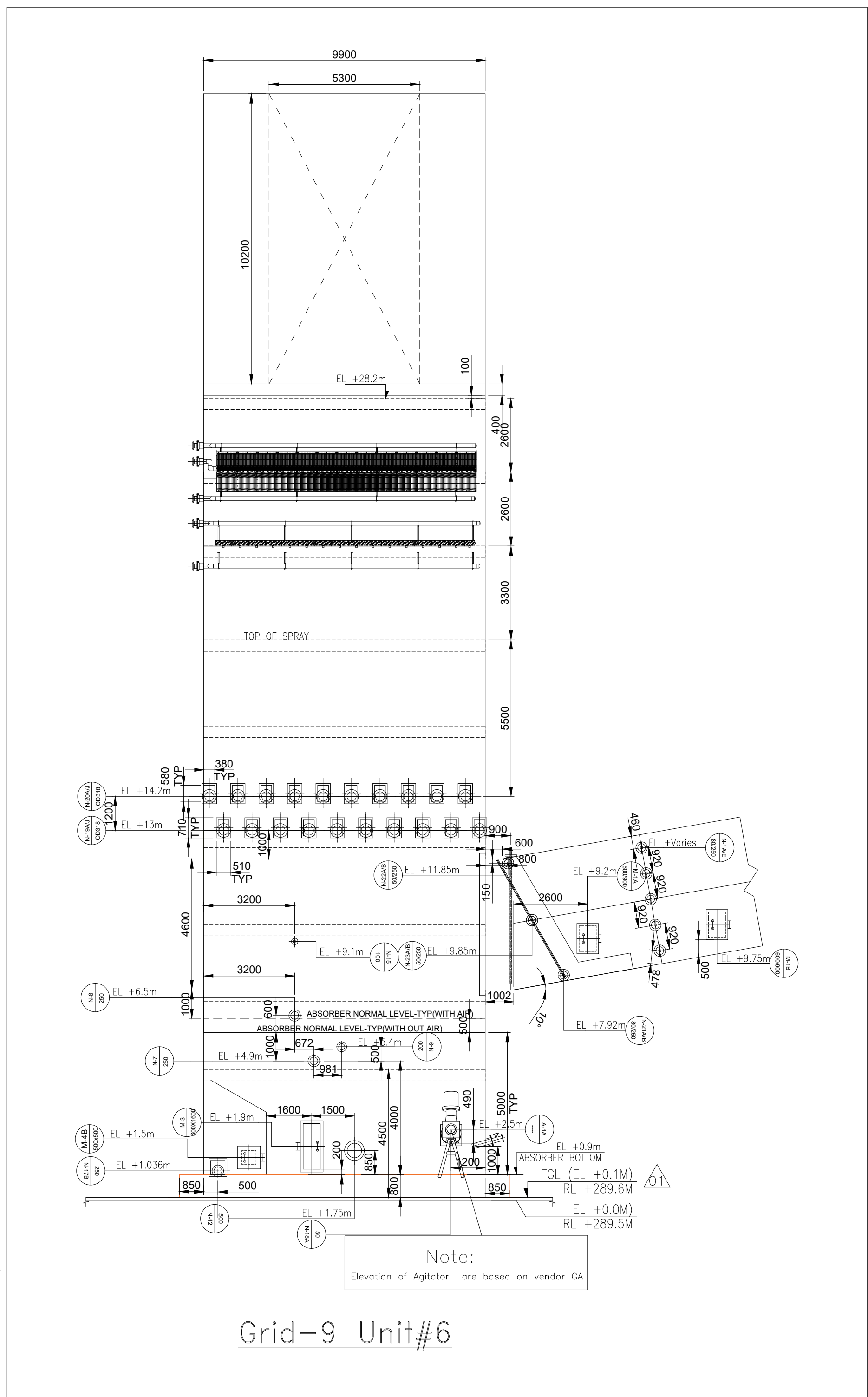
DRAWING UPDATED

REMARKS

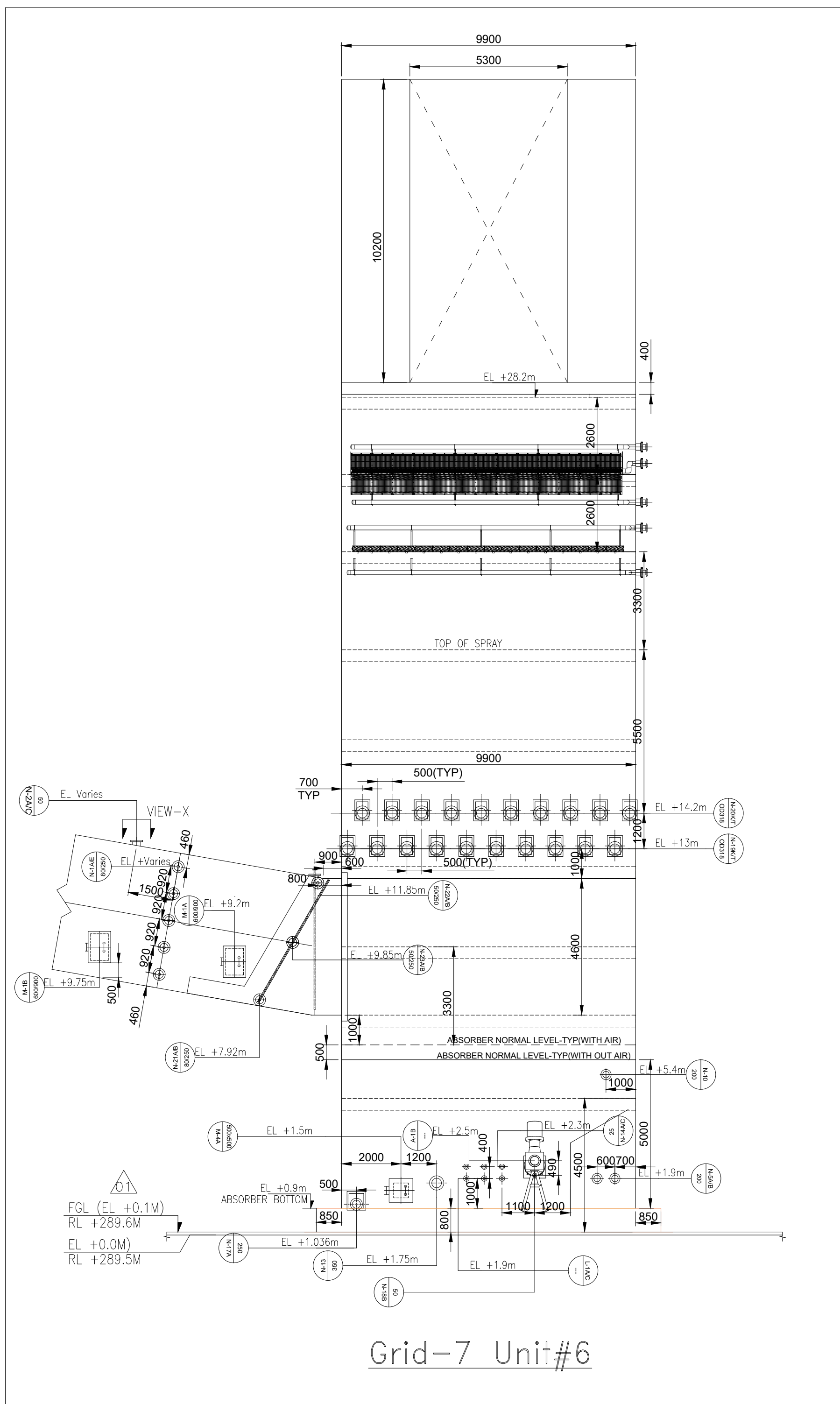
1. ALL DIMENSIONS ARE IN MILLIMETERS.
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7. REFER STANDARD DRAWINGS NO:EGF-0052-433 & EGF-0052-434 FOR DETAIL DIMENSIONS OF JAS NOZZLES.
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9. REFER STANDARD DRAWING NO: EGF-0052-411 FOR DETAILS OF EMERGENCY QUENCHING SPRAY PIPE DETAILS.
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11. REFER STANDARD DRAWING NO:EGF-0052-421 & EGF-0052-422 FOR DETAILS OF DCPS SPRAY PIPES.
12. MINIMUM STAIR CASE WIDTH OF 1200MM SHALL BE PROVIDED AS PER NTPC TECHNICAL SPECIFICATION.



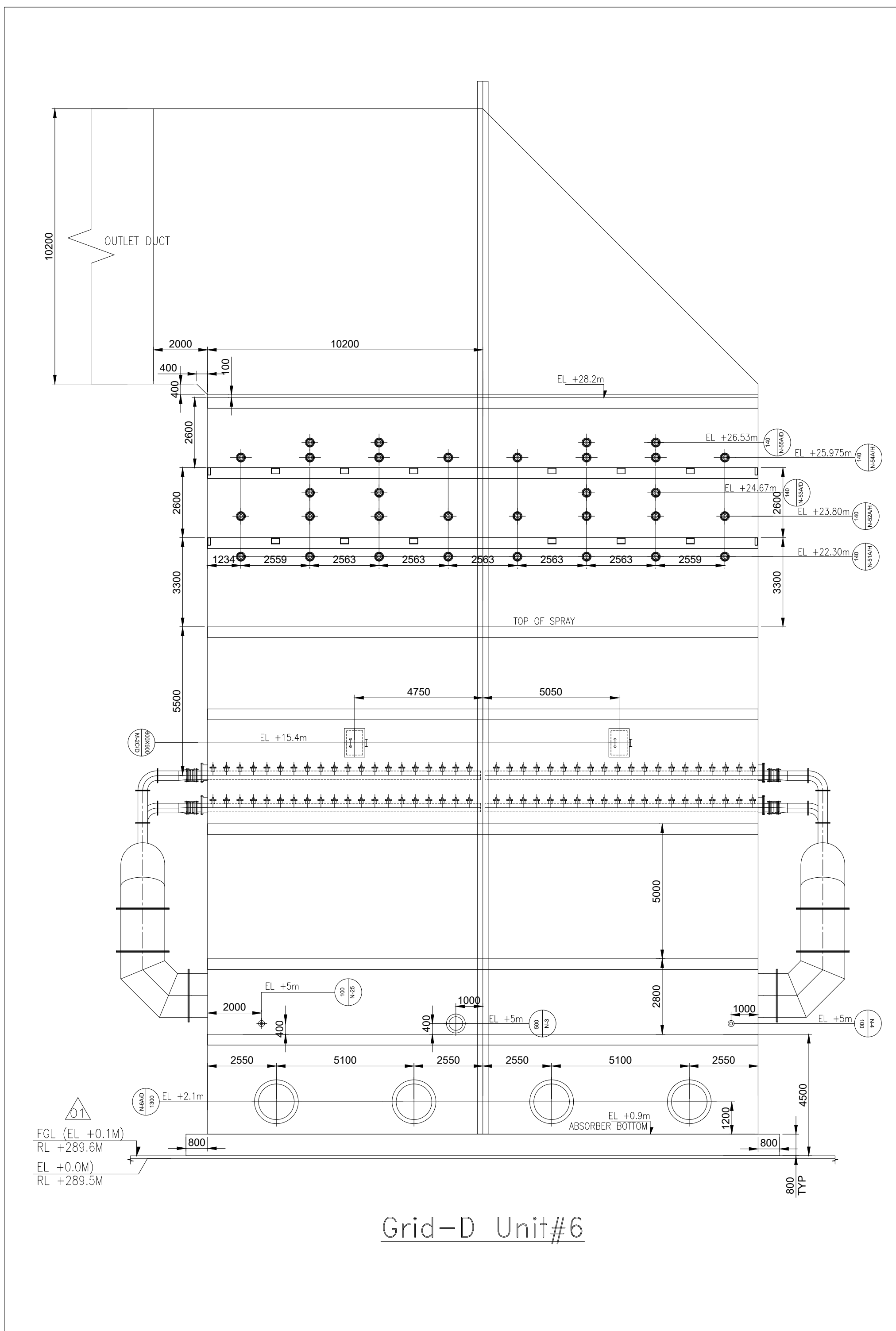
CAUTION: The information on this drawing is the property of BHEL Heavy Electricals Ltd. and is not to be used in any way without the written authority of the company.		BHEL-T CUST.NO-8205	
		CUST.NO-G507	
NTPC Dwg. No.: 2100-109-PVM-B-010			
CUSTOMER: NTPC LIMITED. PROJECT: 3X200MW+3X500MW+1X500MW NTPC KORBA TPP STAGE I, II & III FGD-LOT-3			
09-257/01  Bharat Heavy Electricals Ltd BOILER AUXILIARIES PLANT RANIPET-632 406		NAME S.I./SUKUMAR DATE 15.09.2011	
DPM K.O.MARU REF: TO ASSY / OLD DWG		DATE 15.09.2011 V.V.SUNDAR 15.09.2011	
DEPT AQCS -862	GRADE OF CONTROL CN PR-QA-500	SCALE --	WEIGHT (Kg) --
		REF TO ASSY / OLD DWG ITEM 'N' --	
TITLE GA OF ABSORBER STAGE-I (3X500MW)-UNIT#6		DRAWING NO : 0-FW-000-0240601	
Sh Q4 of 05		U 01	REV



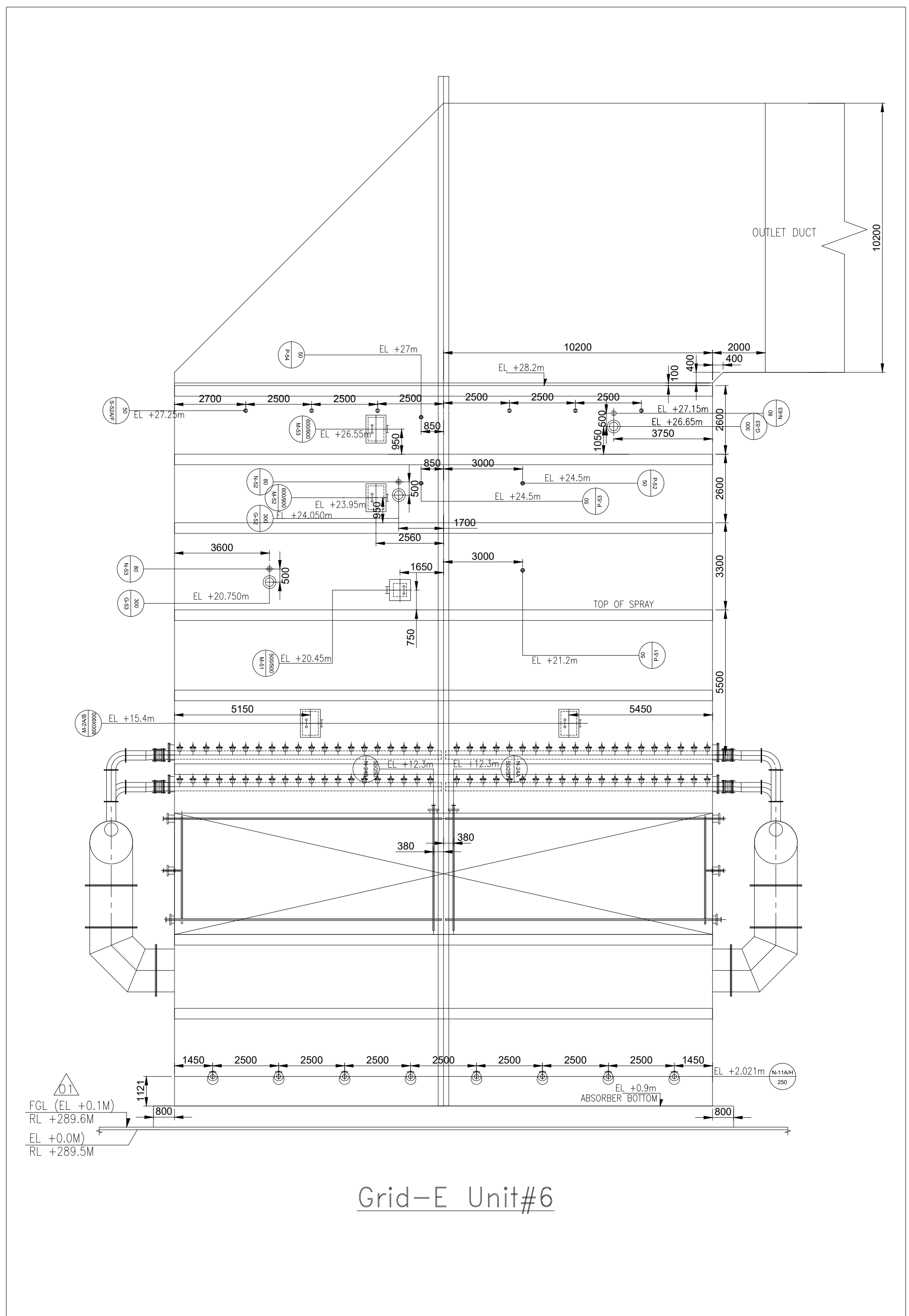
Grid-9 Unit#6



Grid-7 Unit#6



Grid-D Unit#6



Grid-E Unit#6

ABSORBER	N-23 ³ / ₈	2	50/250#		W/D INTERFACE WASHING SPRAY PIPE	SIDE WASH	AS	150
	N-22 ³ / ₈	2	50/250#		W/D INTERFACE WASHING SPRAY PIPE	TOP WASH	AS	150
	N-21 ³ / ₈	2	80/250#		W/D INTERFACE WASHING SPRAY PIPE	BOTTOM WASH	AS	150
	N-20 ³ / ₈	20	00318	ASME 150 ³ / ₈ SO/-	DCS SPRAY PIPE (UPPER SIDE)	Ø 380X580	AS	200
	N-19 ³ / ₈	20	00318	ASME 150 ³ / ₈ SO/-	DCS SPRAY PIPE (LOWER SIDE)	Ø 380X580	AS	200
	N-18 ³ / ₈	2	88.8	AS PER VENDOR	AGITATOR WASH PIPE		AS	150
	N-17 ³ / ₈	2	250/740S	ASME 150 ³ / ₈ SO/-	TANK DRAIN	Ø 600X600	AS	200/600
	N-15	1	100	ASME 150 ³ / ₈ SO	VENT		A	150
	N-14 ³ / ₈	3	25	ASME 150 ³ / ₈ PAD	LT WASHING PIPE		CS	35
	N-13	1	300		EMERGENCY TRANSFER PUMP SUCTION		A	300
	N-12	1	500		ABSORBER DRAIN PIPE TO SUMP		A	300
	N-11 ³ / ₈	8	155/250		JAS NOZZLES	TURN UPWARD 15°	BS	240
	N-10	1	200		AUXILIARY ABSORBENT PUMP RETURN	TURN UPWARD 30°	B	300
	N-9	1	150		ABSORBER AREA DRAIN PUMP RETURN	TURN UPWARD 30°	B	300
	N-8	1	250		OVER FLOW (BUBBLE)		A	300



LEGEND:-

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- FGL : FINISHED GROUND LEVEL
- BOB : BOTTOM OF BASE PLATE LEVEL
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- RS : ROLLING SHUTTER 4M X4M
- TOPF : TOP OF PLATFORM
- PL : PAVED LEVEL
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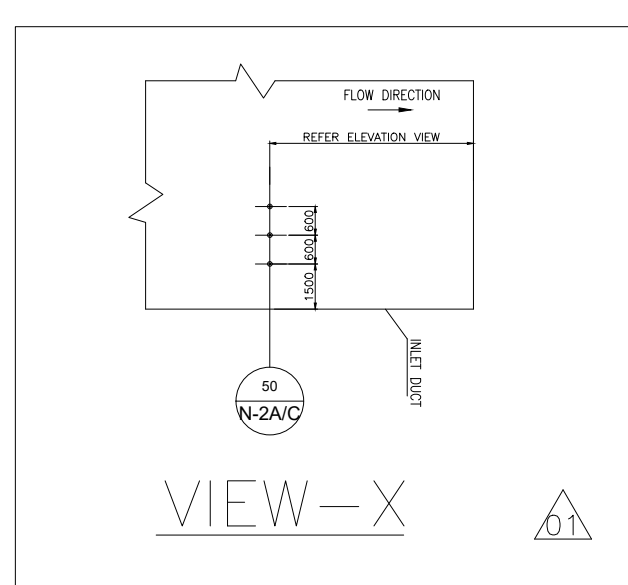
NOTES:

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- FINISH FLOOR LEVEL = RL (+)289.5M, CORRESPONDS TO PLANT EL(+0.0)M WHICH IS GROUND FLOOR OF STG BUILDING.
- FINISHED GROUND/GRADE LEVEL NEAR ABSORBENT AREA(STAGE-I) SHALL BE RL(+289.6M i.e. EL(+0.1M).
- ALL DIMENSIONS INDICATED ARE FROM ABSORBENT OUTSIDE SURFACE ONLY.
- REFER STANDARD DRAWINGS NO:EGF-Q052-433 & EGF-Q052-434 FOR DETAIL DIMENSIONS OF JAS NOZZLES.
- ELEVATIONS MARKED FOR VARIOUS NOZZLES ARE NOZZLE CENTER ELEVATIONS.
- INDICATED DIMENSION IS THE OUTER DIAMETER OF NOZZLE TO BE WELDED ON THE DUCT.
- REFER STANDARD DRAWING NO: EGF-Q052-411 FOR DETAILS OF EMERGENCY QUENCHING SPRAY PIPE DETAILS.
- REFER STANDARD DRAWING NO: EGF-Q052-413 FOR DETAILS OF W/D INTERFACE WASHING PIPE DETAILS.
- REFER STANDARD DRAWING NO:EGF-Q052-421 & EGF-Q052-422 FOR DETAILS OF DCS SPRAY PIPES.

REF. DWGS

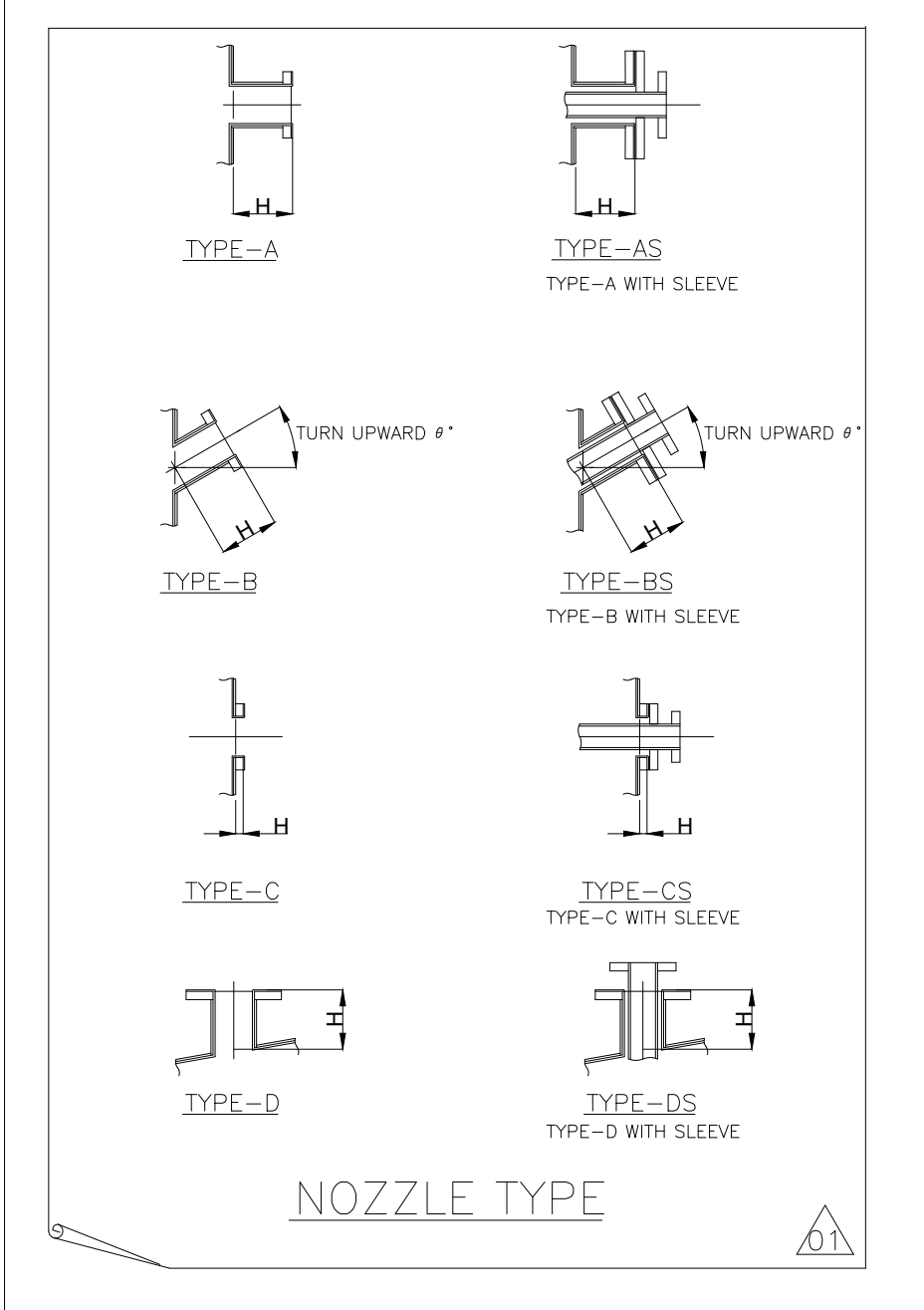
- 2100-109-PVM-F-044 : FGD PLANT LAYOUT
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- 2100-109-PVC-B-046 : GA & RCC Detail of Foundation of Recycle Pump.
- 2100-109-PVM-B-012 : Data sheet & General Arrangement for Oxidation Air Blower.

ABSORBER MIST ELIMINATOR	M-53	1	600X900		FF	MANHOLE	WITH HINGE	A	400
	M-52	1	600X900		FF	MANHOLE	WITH HINGE	A	400
	M-51	1	500X500		FF	MANHOLE	WITH HINGE	A	380
	S-52 ³ / ₈	6	50	ASME 150 ³ / ₈ SO	FF	SAMPLING NOZZLE	WITH BLIND	A	400
	N-55 ³ / ₈	4	140	AS PER VENDOR	FF	M/E WASHING SPRAY PIPE		A	--
	N-54 ³ / ₈	8	140	AS PER VENDOR	FF	M/E WASHING SPRAY PIPE		A	--
	N-53 ³ / ₈	4	140	AS PER VENDOR	FF	M/E WASHING SPRAY PIPE		A	--
	N-52 ³ / ₈	8	140	AS PER VENDOR	FF	M/E WASHING SPRAY PIPE		A	--
	N-51 ³ / ₈	8	140	AS PER VENDOR	FF	M/E WASHING SPRAY PIPE		A	--
	N-4 ³ / ₈	2	500X500		FF	MANHOLE (lower side)	WITH HINGE	A	380
	M-3	1	600X1600		FF	MANHOLE (lower side)	WITH HINGE	A	600
	M-2 ³ / ₈	4	600X900		FF	MANHOLE (lower side)	WITH HINGE	A	380
	M-1 ³ / ₈	4	600X900		FF	MANHOLE (lower side)	WITH HINGE	A	380
	L-1 ³ / ₈	3	---	ASME 150 ³ / ₈ PAD	FF	LT CONNECTION	Will be finalized later	C	35
	A-1 ³ / ₈	2	---	AS PER VENDOR	---	AGITATOR		B	---



OUTLET DUCT	7mm IS 2062 E250 BR + 2mm C276/Titanium cladding		CARBON STEEL	
AIR SUPPLY FIRE MIST ELIMINATOR	-	-	Polypropylene	
WET AIR SPRINGER	-	-	Aluminum ceramic	
SPRAY NOZZLE	UN6 S 31603	UN6 N 10276 (C276)	SIC	
SPRAY PIPE (UNDER ABSORBER)	UN6 S 31603	UN6 N 10276 (C276)	FFP + SIC Coating/Current coating	
SPRAY HEADER (Outside Absorber)	-	-	CS + 6 mm dia Rubber lining	
IRON BOLT & NUT	-	-	-	
INTERNAL SUPPORT	UN6 S 31603	UN6 N 10276 (C276)	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
GRABIT	PTEE	PTEE	RUBBER	
NOZZLE FLANGE	IS 2062 E250 BR	UN6 N 10276 (C276)	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
NOZZLE NECK	IS 2062 E250 BR	UN6 N 10276 (C276)	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
MANHOLE COVER	IS 2062 E250 A/B	-	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
MANHOLE FLANGE	IS 2062 E250 A/B	-	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
MANHOLE NECK	IS 2062 E250 A/B	-	IS 2062 E250 BR + 2mm C276 Cladding/Lining	
BOTTOM PLATE	-	-	CS (7mm min) + 2mm C276 Clad Plate	
SHELLCLASING	IS 2062 E250 A/B	UN6 N 10276 (C276)	IS (7mm min) + 2mm C276 Clad Plate	
SERVICE AREA -->	EMERGENCY QUENCHING AREA	GAS INLET AREA (WET DRY INTERFACE)	ABSORBER SPRAY PIPE AREA	ABSORBER TANK AREA

MATERIAL SPECIFICATION



BHEL-T CUST.NO-8205
CUST.NO-G507

NTPC Dwg. No.: 2100-109-PVM-B-010

CUSTOMER: NTPC LIMITED.
PROJECT: 3X200MW+3X500MW+1X500MW NTPC
KORBA TPP STAGE I, II & III FGD-LOT-3

Bharat Heavy Electricals Ltd
BOILER AUXILIARIES PLANT
RANIPET-632 406

DEPT: AQCS
CODE: B62
GRADE OF MATERIAL: PRQA500

SCALE: --
WEIGHT (kg): --

TITLE: GA OF ABSORBENT
STAGE-I(3X500MW)-UNIT#6

DATE: 15.09.20
BY: K KUMAR
CHKD: V V SUNDAR

01	18.09.21	SASI	SK	APAL	NTPC COMMENTS UPDATED
REV	DATE	ALTERED	CHECKED	APPROVED	REMARKS

DRAWING NO : 0-FW-000-0240601

Size A0