TENDER SPECIFICATION

BHEL: PSSR: SCT: 1467

FOR

Civil for Boiler, ESP, Power House, TG, Mill Bay and other Main Plant buildings-Foundation, Super structure including Architectural work & other allied works and Structural steel fabrication & Erection for Power House, Mill Bunker Bay, Pipe & cable rack and allied works for units 1&2 of 2 x 800 MW

at

Yermarus Thermal Power Station, Yermarus,

Raichur Dist, Karnataka

CORRIGENDUM-2

BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Power Sector – Southern Region
690, Anna Salai, Nandanam, Chennai – 600 035.

BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Power Sector, Southern Region
690, Anna Salai, Nandanam, Chennai – 35

Tender Specification No. BHEL: PSSR: SCT: 1467

for

Civil for Boiler, ESP, Power House, TG, Mill Bay and other Main Plant buildings-Foundation, Super structure including Architectural work & other allied works and Structural steel fabrication & Erection for Power House, Mill Bunker Bay, Pipe & cable rack and allied works for units 1&2 of 2 x 800 MW at Yermarus Thermal Power Station, Yermarus, Raichur Dist, Karnataka

CORRIGENDUM-2
Issued to
M/s

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For and on behalf of
BHARAT HEAVY ELECTRICALS LIMITED

ADDL GENERAL MANAGER / CONTRACTS

Place: Chennai -35

Some of the bidders sought clarifications vide letters or in Pre Bid discussion held on 10.8.2011 at BHEL PSSR Regarding Yermarus 2x800MW Civil and Structural Works Tender Specification BHEL PSSR SCT 1467 and clarifications are furnished below for your information		
S.No	**Bidder's Query**	**BHEL Reply**
1	Borelog Details are required	Bore log details enclosed
2	Material: Clarify Supply scope of Gratings	As per clause 1.3.13 of Vol1 Book 1,page 27: Structural and reinforcement steel wil be issued free of cost. All other Materials Supply including gratings are in bidders scope.
3	Clarify Carraige of material and disposal	Material disposal area will be within project site with lead of 4 to 5 Km
4	Provide approved Vendor list	No approved Vendors hence any supply should be as per technical specification
5	Clarify the RCC Chimney construction scope	Not in Present scope
6	Clarify Cooling Tower construction Scope	Not in Present scope
7	Bid Drawings are required	Being an itemwise contract at this stage drawing is not envisaged. This is near similar structure to 500MW/600MW. Plot plan and equiptment drawings enclosed for information and this may get revised during execution
8	Clarify Supply scope of Structural Steel for Staging	Required stagging materials are in bidders scope
9	Stagging my be trated as Seprate item	BOQ item is very clear bidder to quote accordingly
10	Please furnish Founding depth list of structure	At this stage it cannot be furnished as it is itemwise contract
11	Earthwork - Provide method of measurement	Earthwork measurement is as per clause 6.02 of Vol-IIB sec-D
12	Separate item for shoring and struting is requested	BOQ item is very clear, no separate item shall be provided.
13	Please specify the type of cement for cement related works	Grade 43 OPC as specified in Clause 7.1 Vol-V D4.6 part-c
14	Boq Item No 208-M40 concrete.Please provide the quantity	This item is Deleted
15	Is Boq Item No 701,702,703-MS Embedments will be operated	Yes
16	Boq Item No.915-glass pannel door .Please specify the size of glass	BOQ item is very clear hence quote accordingly
17	Boq Item No 1401a is inclusive of glass strip and it is repeated in 1430 a	Both items are separate hence quote accordingly
18	Boq Item No. 2000- Please confirm the place where the Fencing to be executed and pole for fencing will be supplied by BHEL free of cost.	BOQ item is very clear hence quote accordingly

19	Boq item No. 2301-Please confirm full quantity of structural steel will be issued at RTPS stores	Yes
20	Boq Item No. 2307-Please clarify whether the supply of electroforged Gratings in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
21	Boq Item NO.2310-supply of permanent mild steel bolts in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
22	Boq Item NO.2311-supply of high strength structural bolts in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
23	Boq Item NO.2316-supply of Thick stainless steel liner in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
24	Boq Item NO.2317-supply of PTFE type slide bearings in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
25	Boq Item NO.2318 confirm the supply is in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
26	Boq Item NO.2319-supply of Stainless steel pipe hand rail in BHEL scope	Supply is in the bidders scope.Refer the **BOQ** in the revised Rate Schedule
27	Boq Item 2214	Item description is revised. Refer the BOQ in the revised Rate Schedule
28	Please include deck sheeeting,etc for secured advance release	As per tender condition only
29	A705, Please provide length of fixing rebar	BOQ item is very clear hence quote accordingly
30	Fly ash bricks-Please provide fly ash	In the scope of the bidder
31	Item No 1415 b	Deleted.Refer the BOQ in the revised Rate Schedule
32	Item no 2009	Supply is in the bidders scope.Refer the BOQ in the revised Rate Schedule
33	Item no 2301-request for change of item(bolts weight as separate item)	BOQ item is very clear hence quote accordingly
34	Please increase Mobilization advance from 5% to 10%	As per tender condition only
35	Item 209 As per the this,controlling of temp is reqd for item 205 to 208 i.e. for all RCC works qty shown as 52250cum.But the qty indicated in item 209 as 7650cum.Whether the qty shown as 7650cum is rightly indicated or not?	BOQ quantity is correct hence quote accordingly.

36	Ther is an ambiquity in clause 23 of NIT and the clauses 1.1.10 mentioned in Annexure -4 for consortium agrement.Kindly clarify whether the consortium partner can join with more than one bidder or is he restricted to participate only with one bidder.	consortium partner can join with more than one prime bidder as per NIT Cl 23.
37	Clarify the following for structural steel PQR: 1.Can we take the fabrication from the different projects and erection from the different projects? 2.Can be the fabrication and erection from 2 different periods i.e. fabrication is from different 12 months and erection from different 12 months?	1. yes 2.yes Fabrication or erection quantity in more than one project can also be considered,provided the the fabrication or erection quantities in the said projects would have been executed concurrently.
38	There is contradictory between the clause 1.1.4&1.1.5&1.1.23.Kindly clarify whether both lead partner and associate are jointly and severely responsible or the lead member alone is indivudualy and severely responsible for the execution of contract	As per tender condition only
39	Bid margin in case of consortium bid:Whether the lead member can give the bid margin Bank Guarantee	As per tender condition only
40	We request you to provide the space for the Labour colony	As per tender condition only
41	Suitable higher capacity cranes above 75T capacity cranes are in BHEL scope.Kindly clarify how many cranes will be provided and its capacity.Also we request you to provide all the cranes required for erection on free of cost	As per tender condition only
42	Vol-1,TCC,CL No:1.3.13 We request you to provide the steel in standard length only not in coil form	As per tender condition only

43	The contract period of 30 Months provided for this project is impractical considering the release of drawings,handing over of site,Monsson period etc.Kindly change the contract period atleast to 36 months	As per tender condition only
44	TCC CL 1.7.1.2 VAT:Notwithstanding the fact that this is only an erection service contract not involving any transfer of materials whatsoever and not attracting VAT liability, being labour oriented job work, for the purpose of VAT the contractor has to maintain the complete data relating to the expenditure incurred towards wages etc. ... We would like to inform that the work attracts the value added tax.Kindly note that the work involves lot of materials involvement including cement,bricks,steel,etc.The labour portion would be less comparing to the material portion.Kindly change the clause.	Revised VAT clause enclosed
45	TCC CL:1.7.3.1 labour cess-Any other tax is to be included -Kindly confirm whether we need to include the labour cess for this project	Refer Volume 1A Part-1 Chapter VIII TCC CL1.8.4
46	Kindly clarify whether the Over run charges,Quantity Variation,Price Variation are applicable as per GCC	Yes
47	Road works item no 2426-grade for pavers	M20 concrete will be used
48	Tech spc and drawings for items 1819,1820,1821	Design in the bidders scope

TAXES

Value Added Tax (VAT) for the works

Price quoted shall be inclusive of VAT (works contract) except Service Tax.

In civil works, as transfer of property in goods is involved, Works Contract Tax under VAT Act as applicable shall be included in the quoted price by you. You shall get registered with State VAT authorities and the Registration Certificate should be forwarded to BHEL immediately after commencement of work.

Deduction of VAT (WCT) at source would be enforced from the running bills at the rates prescribed unless exemption certificate is produced from the concerned authorities. Tax invoice if required under the relevant State VAT Law shall be submitted along with other compliances as per VAT Act.

The monthly/quarterly VAT return, duly incorporating the erection income from BHEL as turnover, should be submitted to BHEL at regular intervals with all annexure and details of payment of VAT (WCT).

You have to obtain VAT Clearance Certificate from the concerned authorities as per the provisions of local VAT act, on completion of the project and submit along with the final bill.

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-115	Existing Ground Level (R.L) i	359.487		
Co-ordinates	: N236,E262	Depth of Ground Water Table below EGL (m)	5.27		
Type of Boring	: Rotary Drilling	Date of commencement	02.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	02.03.11	No of DS sample collected	5
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	5

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	7	15	18	33	NA								Sample collected
1.00	1.70	0.70			1.7	DS	Refusal												32cm penetration for 100 blows
1.70	2.00	0.30	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												30cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												23cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												20cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												13cm penetration for 100 blows
5.00	6.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		6.0	Core							39	5	3	34	39	34	Core Collected
6.00	7.00	1.00			7.0	Core							45	6	3	36	45	36	Core Collected
7.00	8.00	1.00			8.0	Core							48	6	2	29	48	29	Core Collected
8.00	9.00	1.00			9.0	Core							53	7	3	40	53	40	Core Collected
9.00	10.00	1.00			10.0	Core							67	9	3	45	67	45	Core Collected

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location	: BH-116	Existing Ground Level (R.L) i	360.353
Co-ordinates	: N41,E259	Depth of Ground Water Table below EGL (m)	5.20
Type of Boring	: Rotary Drilling	Date of commencement	03.03.11
	150mm in Soil,75mm in Rock	Date of Completion	04.03.11
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	8
No of SPT sample collected	1
No of core sample collected	7

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	6	15	23	38	NA								Sample collected
1.00	1.80	0.80			1.8	DS	Refusal												28cm penetration for 100 blows
1.80	2.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												21cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												23cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												20cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												13cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												10cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												3cm penetration for 100 blows
8.00	9.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		9.0	Core							47	6	3	33	47	33	Core Collected
9.00	10.00	1.00			10.0	Core							50	8	2	31	50	31	Core Collected
10.00	11.00	1.00			11.0	Core							42	6	3	34	42	34	Core Collected
11.00	12.00	1.00			12.0	Core							48	6	3	36	48	36	Core Collected
12.00	13.00	1.00			13.0	Core							52	8	3	33	52	33	Core Collected
13.00	14.00	1.00			14.0	Core							58	7	3	38	58	38	Core Collected
14.00	15.00	1.00			15.0	Core							68	8	3	41	68	41	Core Collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-117	Existing Ground Level (R.L) i	360.844		
Co-ordinates	: N245,E198	Depth of Ground Water Table below EGL (m)	4.32		
Type of Boring	: Rotary Drilling	Date of commencement	02.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	02.03.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	17	26	43	NA								Sample collected
1.00	1.80	0.80			1.8	DS	Refusal												40cm penetration for 100 blows
1.80	2.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												37cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												35cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												30cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												21cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												20cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												13cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												4cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												8cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												5cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-118	Existing Ground Level (R.L) i	360.978		
Co-ordinates	: N138,E198	Depth of Ground Water Table below EGL (m)	4.57		
Type of Boring	: Rotary Drilling	Date of commencement	02.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	02.03.11	No of DS sample collected	9
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	5	10	18	28	NA								Sample collected
1.00	2.00	1.00			2.0	DS	Refusal												32cm penetration for 100 blows
2.00	3.00	1.00	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		3.0	DS	Refusal												28cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												21cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												18cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												15cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												17cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												12cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												11cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												7cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-119	Existing Ground Level (R.L) i	361.214		
Co-ordinates	: N103,E192	Depth of Ground Water Table below EGL (m)	4.20		
Type of Boring	: Rotary Drilling	Date of commencement	03.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	03.03.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	0
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	DS	Refusal												37cm penetration for 100 blows
1.00	2.00	1.00	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												35cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												32cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												26cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												17cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												12cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												11cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												10cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												7cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												5cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location	: BH-120	Existing Ground Level (R.L) i	361.360
Co-ordinates	: S7,E192	Depth of Ground Water Table below EGL (m)	7.23
Type of Boring	: Rotary Drilling	Date of commencement	03.03.11
	150mm in Soil,75mm in Rock	Date of Completion	04.03.11
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	11
No of SPT sample collected	0
No of core sample collected	4

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	DS	Refusal												29cm penetration for 100 blows
1.00	2.00	1.00	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												18cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												13cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												10cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												11cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												8cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												5cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												3cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows
10.00	11.00	1.00			11.0	DS	Refusal												2cm penetration for 100 blows
11.00	12.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		12.0	Core							44	7	2	33	44	33	Core collected
12.00	13.00	1.00			13.0	Core							52	8	3	38	52	38	Core collected
13.00	14.00	1.00			14.0	Core							45	6	2	33	45	33	Core collected
14.00	15.00	1.00			15.0	Core							48	7	2	31	48	31	Core collected

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location :	BH-121	Existing Ground Level (R.L) i	362.620
Co-ordinates :	N218,E72	Depth of Ground Water Table below EGL (m)	7.57
Type of Boring :	Rotary Drilling	Date of commencement	04.03.11
	150mm in Soil,75mm in Rock	Date of Completion	04.03.11
Dia of Bore :	150mm	Conducted By	K.C.Mohanta
Type of Sampler used :	UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	12
No of SPT sample collected	1
No of core sample collected	3

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	17	28	45	NA								Sample collected
1.00	1.70	0.70	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		1.7	DS	Refusal												32cm penetration for 100 blows
1.70	2.00	0.30			2.0	DS	Refusal												30cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												27cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												23cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												20cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												14cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												12cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												9cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												6cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												3cm penetration for 100 blows
10.00	11.00	1.00			11.0	DS	Refusal												2cm penetration for 100 blows
11.00	12.00	1.00			12.0	DS	Refusal												2cm penetration for 100 blows
12.00	13.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		13.0	Core							47	6	2	31	47	31	Core collected
13.00	14.00	1.00			14.0	Core							52	7	3	38	52	38	Core collected
14.00	15.00	1.00			15.0	Core							57	6	3	43	57	43	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-122	Existing Ground Level (R.L) i	362.532		
Co-ordinates	: N120,E86	Depth of Ground Water Table below EGL (m)	3.10		
Type of Boring	: Rotary Drilling	Date of commencement	23.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	24.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	15	27	42	NA								Sample collected
1.00	1.80	0.80			1.8	DS	Refusal												13cm penetration for 100 blows
1.80	2.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												10cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												7cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												5cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												3cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												3cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												2cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location	: BH-123	Existing Ground Level (R.L) in	362.980
Co-ordinates	: N72,E97	Depth of Ground Water Table below EGL (m)	5.78
Type of Boring	: Rotary Drilling	Date of commencement	02.03.11
	150mm in Soil,75mm in Rock	Date of Completion	03.03.11
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	5
No of SPT sample collected	1
No of core sample collected	10

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	7	16	23	39	NA								Sample collected
1.00	1.70	0.70			1.7	DS	Refusal												25cm penetration for 100 blows
1.70	2.00	0.30	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												20cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												17cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												10cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												5cm penetration for 100 blows
5.00	6.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		6.0	Core							43	6	3	36	43	36	Core collected
6.00	7.00	1.00			7.0	Core							45	7	2	30	45	30	Core collected
7.00	8.00	1.00			8.0	Core							52	8	3	32	52	32	Core collected
8.00	9.00	1.00			9.0	Core							47	6	3	37	47	37	Core collected
9.00	10.00	1.00			10.0	Core							54	7	3	42	54	42	Core collected
10.00	11.00	1.00			11.0	Core							45	7	2	29	45	29	Core collected
11.00	12.00	1.00			12.0	Core							48	6	2	31	48	31	Core collected
12.00	13.00	1.00			13.0	Core							52	7	3	42	52	42	Core collected
13.00	14.00	1.00			14.0	Core							57	8	3	37	57	37	Core collected
14.00	15.00	1.00			15.0	Core							67	8	3	45	67	45	Core collected

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location	: BH-124	Existing Ground Level (R.L) in	362.932
Co-ordinates	: N0,E91	Depth of Ground Water Table below EGL (m)	5.71
Type of Boring	: Rotary Drilling	Date of commencement	03.03.11
	150mm in Soil,75mm in Rock	Date of Completion	03.03.11
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	2
No of SPT sample collected	1
No of core sample collected	7

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	7	12	23	35	NA								Sample collected
1.00	2.00	1.00			2.0	DS	Refusal												17cm penetration for 100 blows
2.00	3.00	1.00	Highly Weathered Disintegrated Granitic Gneiss		3.0	DS	Refusal												5cm penetration for 100 blows
3.00	4.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		4.0	Core							47	8	2	29	47	29	Core collected
4.00	5.00	1.00			5.0	Core							51	7	2	33	51	33	Core collected
5.00	6.00	1.00			6.0	Core							48	6	2	33	48	33	Core collected
6.00	7.00	1.00			7.0	Core							45	7	3	36	45	36	Core collected
7.00	8.00	1.00			8.0	Core							56	8	2	34	56	34	Core collected
8.00	9.00	1.00			9.0	Core							58	7	3	43	58	43	Core collected
9.00	10.00	1.00			10.0	Core							60	9	3	38	60	38	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-125	Existing Ground Level (R.L) in	363.253		
Co-ordinates	: N293,E18	Depth of Ground Water Table below EGL (m)	2.30		
Type of Boring	: Rotary Drilling	Date of commencement	22.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	23.02.11	No of DS sample collected	14
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	11	20	34	54	NA								Sample collected
1.00	1.30	0.30			1.3	DS	Refusal												17cm penetration for 100 blows
1.30	2.00	0.70	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												13cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												13cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												10 cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												7 cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												7 cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												5 cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												3 cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												3 cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2 cm penetration for 100 blows
10.00	11.50	1.50			11.5	DS	Refusal												2 cm penetration for 100 blows
11.50	13.00	1.50			13.0	DS	Refusal												2 cm penetration for 100 blows
13.00	14.50	1.50			14.5	DS	Refusal												2 cm penetration for 100 blows
14.50	15.00	0.50			15.0	DS	Refusal												2 cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-126	Existing Ground Level (R.L) in	363.765		
Co-ordinates	: N220,E0	Depth of Ground Water Table below EGL (m)	7.35		
Type of Boring	: Rotary Drilling	Date of commencement	22.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	22.02.11	No of DS sample collected	14
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	17	31	48	NA								Sample collected
1.00	1.30	0.30			1.3	DS	Refusal												13cm penetration for 100 blows
1.30	2.00	0.70	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												12cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												10 cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												7 cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												5 cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												5 cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												3 cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												3 cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												3 cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2 cm penetration for 100 blows
10.00	11.50	1.50			11.5	DS	Refusal												2 cm penetration for 100 blows
11.50	13.00	1.50			13.0	DS	Refusal												3 cm penetration for 100 blows
13.00	14.50	1.50			14.5	DS	Refusal												3 cm penetration for 100 blows
14.50	15.00	0.50			15.0	DS	Refusal												2 cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-127	Existing Ground Level (R.L) in	363.090		
Co-ordinates	: N127,E21	Depth of Ground Water Table below EGL (m)	2.35		
Type of Boring	: Rotary Drilling	Date of commencement	23.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	23.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	17	24	41	NA								Sample collected
1.00	1.40	0.40			1.4	DS	Refusal												30cm penetration for 100 blows
1.40	2.00	0.60	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												17cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												13 cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												11 cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												3 cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												3 cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												2 cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2 cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2 cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2 cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL		
Project	2X800 MW Yermaras TPS		
Bore hole Location	: BH-128	Existing Ground Level (R.L) in	364.367
Co-ordinates	: N74,E16	Depth of Ground Water Table below EGL (m)	6.59
Type of Boring	: Rotary Drilling	Date of commencement	04.03.11
	150mm in Soil,75mm in Rock	Date of Completion	04.03.11
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel		

No of DS sample collected	9
No of SPT sample collected	1
No of core sample collected	6

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	9	17	25	42	NA								Sample collected
1.00	1.30	0.30			1.3	DS	Refusal												37cm penetration for 100 blows
1.30	2.00	0.70	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												32cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												27cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												23cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												20cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												13cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												15cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												11cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												5cm penetration for 100 blows
9.00	10.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		10.0	Core							41	5	3	32	41	32	Core collected
10.00	11.00	1.00			11.0	Core							45	6	3	34	45	34	Core collected
11.00	12.00	1.00			12.0	Core							51	5	3	41	51	41	Core collected
12.00	13.00	1.00			13.0	Core							48	6	3	38	48	38	Core collected
13.00	14.00	1.00			14.0	Core							56	7	2	32	56	32	Core collected
14.00	15.00	1.00			15.0	Core							68	7	2	43	68	43	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-129	Existing Ground Level (R.L) in	364.510		
Co-ordinates	: N23,E16	Depth of Ground Water Table below EGL (m)	4.30		
Type of Boring	: Rotary Drilling	Date of commencement	23.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	23.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	22	29	47	76	NA								Sample collected
1.00	1.20	0.20			1.2	DS	Refusal												7cm penetration for 100 blows
1.20	2.00	0.80	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												5cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												3cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												3cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												2cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												2cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												2cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-130	Existing Ground Level (R.L) in	364.542		
Co-ordinates	: N252,W53	Depth of Ground Water Table below EGL (m)	3.81		
Type of Boring	: Rotary Drilling	Date of commencement	22.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	22.02.11	No of DS sample collected	9
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	11	15	26	NA								Sample collected
1.00	2.00	1.00			2.0	DS	Refusal												17cm penetration for 100 blows
2.00	3.00	1.00	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												8cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												4cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												3cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												3cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-131	Existing Ground Level (R.L) in	365.615		
Co-ordinates	: N42,W39	Depth of Ground Water Table below EGL (m)	4.10		
Type of Boring	: Rotary Drilling	Date of commencement	23.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	24.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	7	24	31	55	NA								Sample collected
1.00	1.70	0.70			1.7	DS	Refusal												7cm penetration for 100 blows
1.70	2.00	0.30	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												5cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												3cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												3cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												2cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												2cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												2cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-132	Existing Ground Level (R.L) in	365.260		
Co-ordinates	: S2,W35	Depth of Ground Water Table below EGL (m)	7.58		
Type of Boring	: Rotary Drilling	Date of commencement	04.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	04.03.11	No of DS sample collected	7
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	3

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	10	18	27	45	NA								Sample collected
1.00	1.60	0.60			1.6	DS	Refusal												25cm penetration for 100 blows
1.60	2.00	0.40	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												21cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												13cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												11cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												6cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												3cm penetration for 100 blows
7.00	8.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		8.0	Core							51	7	2	31	51	31	Core collected
8.00	9.00	1.00			9.0	Core							49	6	2	28	49	28	Core collected
9.00	10.00	1.00			10.0	Core							53	7	3	39	53	39	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-133	Existing Ground Level (R.L) in	366.061		
Co-ordinates	: N280,W220	Depth of Ground Water Table below EGL (m)	4.15		
Type of Boring	: Rotary Drilling	Date of commencement	01.03.11		
	150mm in Soil,75mm in Rock	Date of Completion	01.03.11	No of DS sample collected	6
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	4

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	12	28	35	63	NA								Sample collected
1.00	1.50	0.50			1.5	DS	Refusal												37cm penetration for 100 blows
1.50	2.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												33cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												27cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												21cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												19cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												10cm penetration for 100 blows
6.00	7.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		7.0	Core							43	5	3	38	43	38	Core collected
7.00	8.00	1.00			8.0	Core							51	7	3	38	51	38	Core collected
8.00	9.00	1.00			9.0	Core							48	8	3	36	48	36	Core collected
9.00	10.00	1.00			10.0	Core							53	7	3	38	53	38	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-134	Existing Ground Level (R.L) in	367.714		
Co-ordinates	: N160,W257	Depth of Ground Water Table below EGL (m)	3.45		
Type of Boring	: Rotary Drilling	Date of commencement	28.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	28.02.11	No of DS sample collected	9
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	25	37	62	NA								Sample collected
1.00	1.80	0.80			1.8	DS	Refusal												32cm penetration for 100 blows
1.80	2.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												30cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												27cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												25cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												21cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												13cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												11cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												12cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												10cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												4cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-135	Existing Ground Level (R.L) in	368.172		
Co-ordinates	: S3,W240	Depth of Ground Water Table below EGL (m)	4.95		
Type of Boring	: Rotary Drilling	Date of commencement	28.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	28.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	9	21	35	56	NA								Sample collected
1.00	1.70	0.70			1.7	DS	Refusal												37cm penetration for 100 blows
1.70	2.00	0.30	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												32cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												30cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												27cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												21cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												20cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												23cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												21cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												17cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												5cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-136	Existing Ground Level (R.L) in	367.715		
Co-ordinates	: S94,W133	Depth of Ground Water Table below EGL (m)	7.71		
Type of Boring	: Rotary Drilling	Date of commencement	27.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	27.02.11	No of DS sample collected	8
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	6

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	10	27	34	61	NA								Sample collected
1.00	1.40	0.40			1.4	DS	Refusal												32cm penetration for 100 blows
1.40	2.00	0.60	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												28cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												23cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												19cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												15cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												7cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												3cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		9.0	Core							45	7	3	39	45	39	Core collected
9.00	10.00	1.00			10.0	Core							43	6	3	35	43	35	Core collected
10.00	11.50	1.50			11.5	Core							46	7	3	36	31	24	Core collected
11.50	13.00	1.50			13.0	Core							49	6	3	48	33	32	Core collected
13.00	14.50	1.50			14.5	Core							47	5	3	40	31	27	Core collected
14.50	15.00	0.50			15.0	Core							63	7	3	46	126	92	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-137	Existing Ground Level (R.L) in	367.761		
Co-ordinates	: S71,W99	Depth of Ground Water Table below EGL (m)	7.25		
Type of Boring	: Rotary Drilling	Date of commencement	28.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	28.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	9	25	37	62	NA								Sample collected
1.00	1.50	0.50			1.5	DS	Refusal												33cm penetration for 100 blows
1.50	2.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												31cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												30cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												27cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												25cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												21cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												17cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												13cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												11cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												4cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-138	Existing Ground Level (R.L) in	367.410		
Co-ordinates	: S167,W93	Depth of Ground Water Table below EGL (m)	4.32		
Type of Boring	: Rotary Drilling	Date of commencement	26.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	26.02.11	No of DS sample collected	9
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	0
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	2

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	DS	Refusal												31cm penetration for 100 blows
1.00	1.50	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		1.5	DS	Refusal												25cm penetration for 100 blows
1.50	2.00	0.50			2.0	DS	Refusal												23cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												10cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												11cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												10cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												5cm penetration for 100 blows
8.00	9.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		9.0	Core							47	4	3	37	47	37	Core collected
9.00	10.00	1.00			10.0	Core							52	5	3	46	52	46	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-139	Existing Ground Level (R.L) in	367.126		
Co-ordinates	: S141,W101	Depth of Ground Water Table below EGL (m)	7.35		
Type of Boring	: Rotary Drilling	Date of commencement	26.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	26.02.11	No of DS sample collected	8
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	0
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	3

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	0.70	0.70	Blackish coloured Silty Clay of low plasticity		0.7	DS	Refusal												32cm penetration for 100 blows
0.70	1.00	0.30	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		1.0	DS	Refusal												30cm penetration for 100 blows
1.00	2.00	1.00			2.0	DS	Refusal												27cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												23cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												21cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												18cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												13cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												10cm penetration for 100 blows
7.00	8.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		8.0	Core							42	5	3	38	42	38	Core collected
8.00	9.00	1.00			9.0	Core							47	4	2	29	47	29	Core collected
9.00	10.00	1.00			10.0	Core							51	5	3	41	51	41	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-139	Existing Ground Level (R.L) in	367.713		
Co-ordinates	: S160,W129	Depth of Ground Water Table below EGL (m)	5.50		
Type of Boring	: Rotary Drilling	Date of commencement	27.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	27.02.11	No of DS sample collected	7
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	3

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	24	32	56	NA								Sample Collected
1.00	1.50	0.50			1.5	DS	Refusal												32cm penetration for 100 blows
1.50	2.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												30cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												27cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												20cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												13cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												10cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		8.0	Core							47	4	2	28	47	28	Core collected
8.00	9.00	1.00			9.0	Core							52	5	2	31	52	31	Core collected
9.00	10.00	1.00			10.0	Core							58	6	3	37	58	37	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-141	Existing Ground Level (R.L) in	366.010		
Co-ordinates	: S134,W10	Depth of Ground Water Table below EGL (m)	4.75		
Type of Boring	: Rotary Drilling	Date of commencement	28.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	28.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	12	28	32	60	NA								Sample Collected
1.00	1.40	0.40			1.4	DS	Refusal												32cm penetration for 100 blows
1.40	2.00	0.60	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												32cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												30cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												25cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												20cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												20cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												17cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												15cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												8cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												5cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-142	Existing Ground Level (R.L) in	365.167		
Co-ordinates	: S61,W28	Depth of Ground Water Table below EGL (m)	2.30		
Type of Boring	: Rotary Drilling	Date of commencement	26.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	26.02.11	No of DS sample collected	4
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	0
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	7

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	0.50	0.50	Blackish coloured Silty Clay of low plasticity		0.5	DS	Refusal												7cm penetration for 100 blows
0.50	1.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		1.0	DS	Refusal												5cm penetration for 100 blows
1.00	2.00	1.00			2.0	DS	Refusal												5cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												3cm penetration for 100 blows
3.00	4.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		4.0	Core							29	5	1	10	29	10	Core collected
4.00	5.00	1.00			5.0	Core							32	4	2	24	32	24	Core collected
5.00	6.00	1.00			6.0	Core							46	3	3	38	46	38	Core collected
6.00	7.00	1.00			7.0	Core							52	4	3	41	52	41	Core collected
7.00	8.00	1.00			8.0	Core							54	4	2	32	54	32	Core collected
8.00	9.00	1.00			9.0	Core							51	5	3	40	51	40	Core collected
9.00	10.00	1.00			10.0	Core							57	5	3	45	57	45	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-143	Existing Ground Level (R.L) in	364.520		
Co-ordinates	: S72,W54	Depth of Ground Water Table below EGL (m)	4.57		
Type of Boring	: Rotary Drilling	Date of commencement	27.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	27.02.11	No of DS sample collected	8
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	0
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	3

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	0.80	0.80	Blackish coloured Silty Clay of low plasticity		0.8	DS	Refusal												32cm penetration for 100 blows
0.80	1.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		1.0	DS	Refusal												30cm penetration for 100 blows
1.00	2.00	1.00			2.0	DS	Refusal												27cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												21cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												17cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												15cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												11cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		8.0	Core							49	5	3	40	49	40	Core collected
8.00	9.00	1.00			9.0	Core							58	5	3	38	58	38	Core collected
9.00	10.00	1.00			10.0	Core							65	7	3	46	65	46	Core collected

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-144	Existing Ground Level (R.L) in	364.471		
Co-ordinates	: S110,E70	Depth of Ground Water Table below EGL (m)	3.25		
Type of Boring	: Rotary Drilling	Date of commencement	27.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	27.02.11	No of DS sample collected	8
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	2

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	Remarks
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	11	25	38	63	NA								Sample Collected
1.00	1.50	0.50			1.5	DS	Refusal												17cm penetration for 100 blows
1.50	2.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												14cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												12cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												11cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												12cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												3cm penetration for 100 blows
8.00	9.00	1.00	Massive Coarse Grained Light Yellowish colour Crystalline Granitic Gneiss		9.0	Core							58	6	3	43	58	43	Core collected
9.00	10.00	1.00			10.0	Core							63	5	3	42	63	42	Core collected

FIELD BORELOG CHART

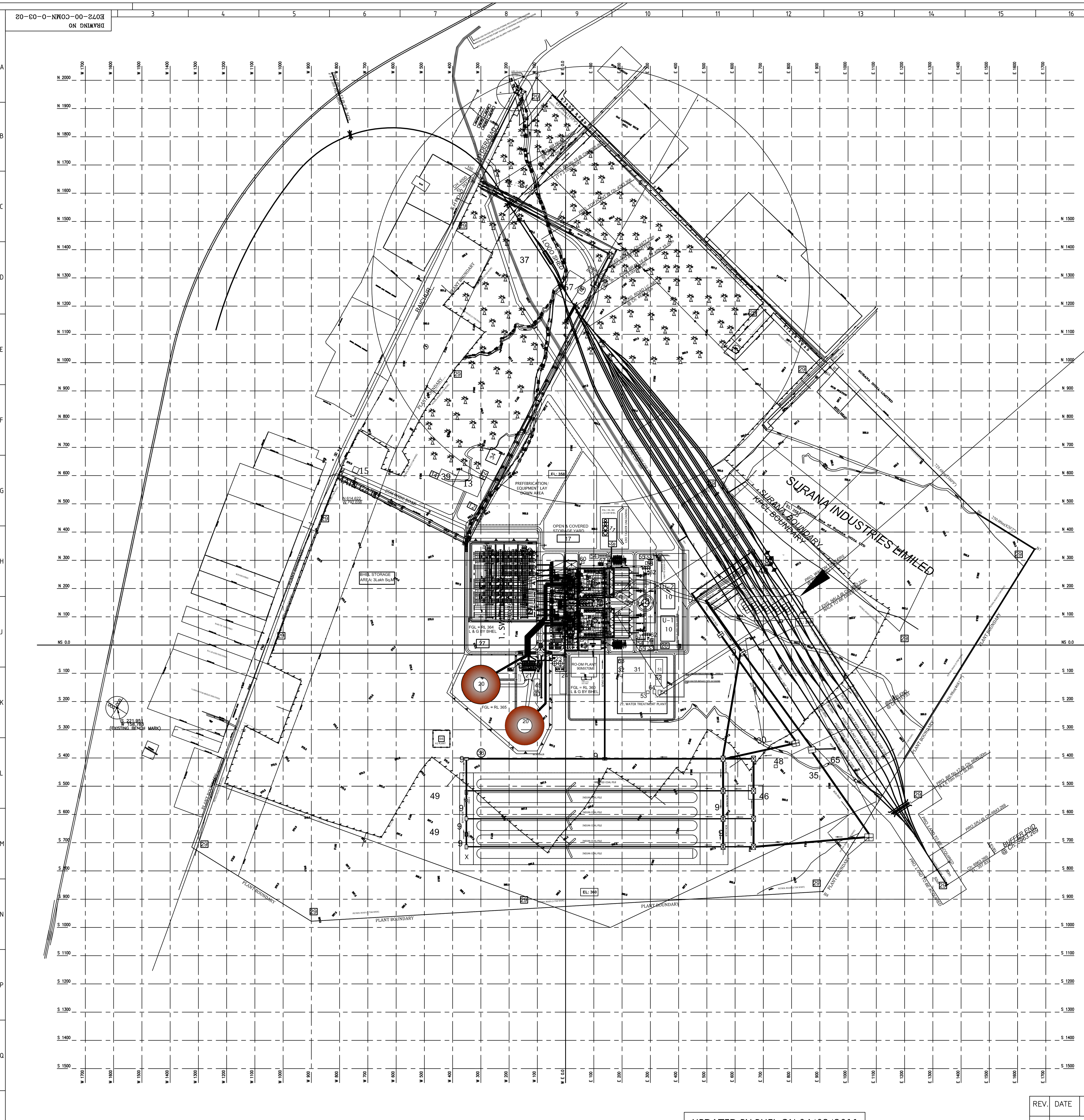
Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-145	Existing Ground Level (R.L) in	360.854		
Co-ordinates	: S75,E245	Depth of Ground Water Table below EGL (m)	3.30		
Type of Boring	: Rotary Drilling	Date of commencement	25.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	25.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
From	To				Depth(m)	Type	Blows Required for Penetration of depth			N value			Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
							0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected								
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	8	15	27	42	NA								Sample Collected
1.00	1.50	0.50			1.5	DS	Refusal												32cm penetration for 100 blows
1.50	2.00	0.50	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												17cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												15cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												14cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												11cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												11cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												7cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												3cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												3cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows

FIELD BORELOG CHART

Client	BHEL				
Project	2X800 MW Yermaras TPS				
Bore hole Location	: BH-146	Existing Ground Level (R.L) in	361.902		
Co-ordinates	: S218,E279	Depth of Ground Water Table below EGL (m)	4.68		
Type of Boring	: Rotary Drilling	Date of commencement	26.02.11		
	150mm in Soil,75mm in Rock	Date of Completion	26.02.11	No of DS sample collected	10
Dia of Bore	: 150mm	Conducted By	K.C.Mohanta	No of SPT sample collected	1
Type of Sampler used	: UDS/Split spoon Sampler/Core barrel			No of core sample collected	0

Depth(m)		Length of Run(m)	Description of Strata	Log of Bore	Sampling		SPT					IS Classification	Details of Rock Core						Remarks
							Blows Required for Penetration of depth			N value									
From	To				Depth(m)	Type	0 - 15 cm	15 - 30 cm	30 - 45 cm	Observed	Corrected		Total Length (cm)	No of Core Pieces	No. of Core pieces greater than 10 cm	Total Length of core pieces greater than 10cm	% of Core Recovery	RQD Value %	
0.00	1.00	1.00	Blackish coloured Silty Clay of low plasticity		1.0	SPT	12	27	43	70	NA								Sample Collected
1.00	1.80	0.80			1.8	DS	Refusal												17cm penetration for 100 blows
1.80	2.00	0.20	Highly Weathered Disintegrated Granitic Gneiss with Sandy Quartz and Feldspar Fragments having High porosity and permeability		2.0	DS	Refusal												15cm penetration for 100 blows
2.00	3.00	1.00			3.0	DS	Refusal												10cm penetration for 100 blows
3.00	4.00	1.00			4.0	DS	Refusal												5cm penetration for 100 blows
4.00	5.00	1.00			5.0	DS	Refusal												3cm penetration for 100 blows
5.00	6.00	1.00			6.0	DS	Refusal												2cm penetration for 100 blows
6.00	7.00	1.00			7.0	DS	Refusal												2cm penetration for 100 blows
7.00	8.00	1.00			8.0	DS	Refusal												2cm penetration for 100 blows
8.00	9.00	1.00			9.0	DS	Refusal												2cm penetration for 100 blows
9.00	10.00	1.00			10.0	DS	Refusal												2cm penetration for 100 blows



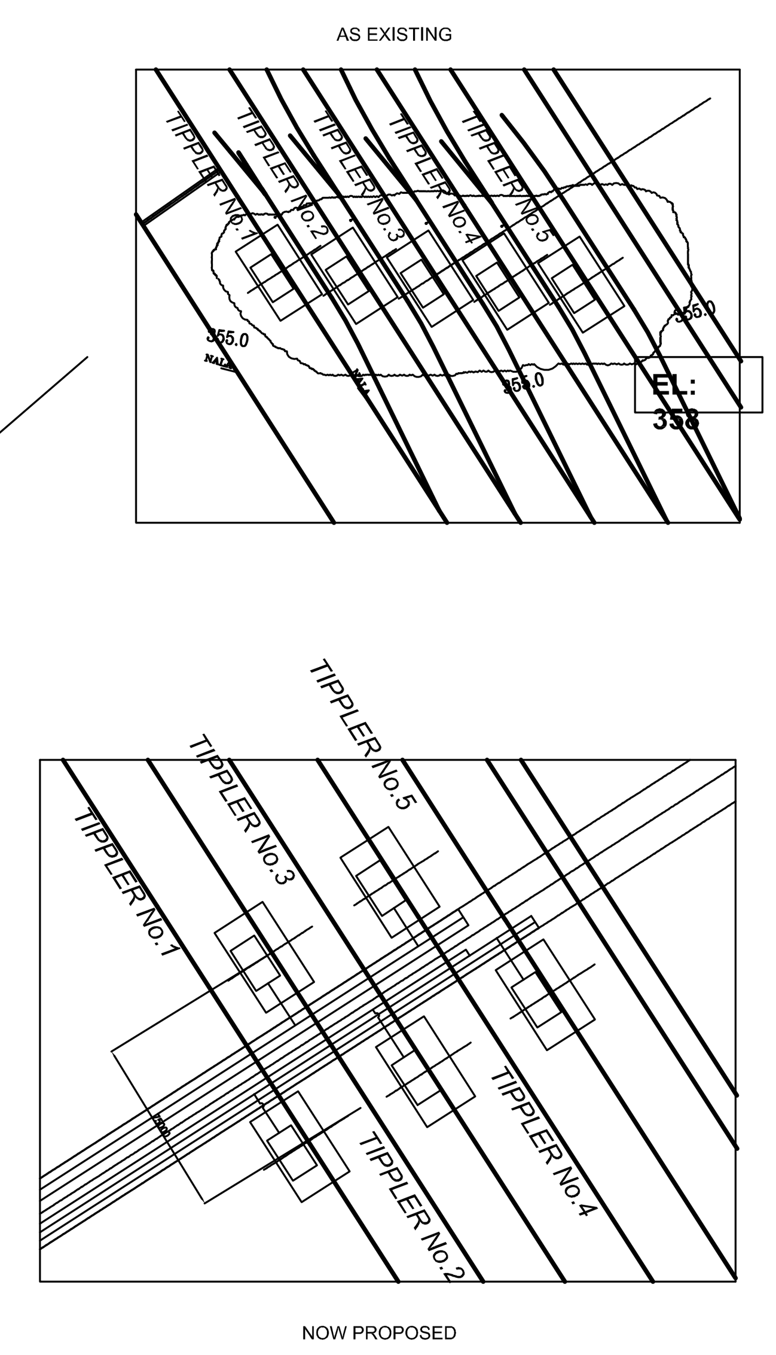
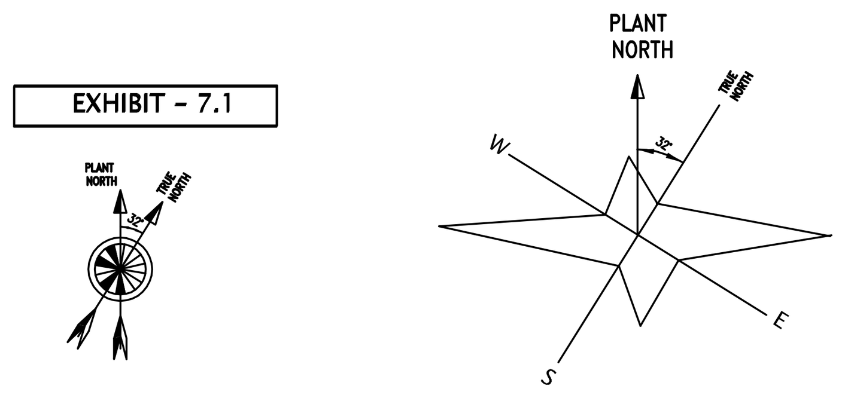


EXHIBIT - 7.1



LEGEND

SL	DESCRIPTION	SCOPE
1.	SWITCH YARD	BHEL
2.	SWITCH YARD CONTROL ROOM	BHEL
3.	TRANSFORMER YARD	BHEL
4.	TURBINE BUILDING	BHEL
5.	BOILER STRUCTURE	BHEL
6.	ESP	BHEL
7.	ESP CONTROL ROOM	BHEL
8.	CHIMNEY	RPCL
9.	JUNCTION TOWER	RPCL
10.	FGD SPACE	RPCL
11.	FO/LDO UNLOADING AND HANDLING	BHEL
12.	CAR PARKING	RPCL
13.	ADMINISTRATION	RPCL
14.	CANTEEN	RPCL
15.	SECURITY & TIME OFFICE	RPCL
16.	ASH HANDLING SILOS	RPCL
17.	ELECTRICAL STORE	RPCL
18.	SERVICE BUILDING	BHEL
19.	MAINTENANCE BAY	BHEL
20.	NATURAL DRAFT COOLING TOWER	RPCL
21.	CW SUMP & PUMP HOUSE	BHEL
22.	WATER TREATMENT PLANT	RPCL
23.	DM STORAGE TANK	BHEL
24.	FWPH AND TANK (80X24)	BHEL
25.	ACW PUMP HOUSE	BHEL
26.	BLOW DOWN PUMP HOUSE	RPCL
27.	FIRE STATION	RPCL
28.	CONDENSATE STORAGE TANK	BHEL
29.	WATCH TOWER	RPCL
30.	PRIMARY CRUSHER HOUSE	RPCL
31.	FILTERED WATER STORAGE TANK	RPCL
32.	FILTER WATER PUMP HOUSE & MCC (35X10)	RPCL
33.	ASH SLURRY PUMP HOUSE (30X16)	RPCL
34.	TRAINING SCHOOL	RPCL
35.	SECONDARY CRUSHER HOUSE	RPCL
36.	SERVICE WATER OVER HEAD TANK	RPCL
37.	LOCO SHED (20X25)	RPCL
38.	FO HEATING AND PUMPING UNIT	BHEL
39	CONFERENCE HALL	RPCL
40	SILO UTILITY BUILDING	RPCL
41	CW TREATMENT PLANT	BHEL
42	POST OFFICE & BANK	RPCL
43	IA/SA COMPRESSOR HOUSE	BHEL
44	DM TRANSFER PH	BHEL
45	CW ACID DOSING	RPCL
46	CHP MCC (50X50)	RPCL
47	MILL REJECT SILO	RPCL
48	WAGON TIPPLER MCC	RPCL
49	EMERGENCY RECLAIM HOPPER	RPCL
50	PRETREATMENT PLANT RAW WATER MICRO FILTER (10X15)	RPCL
51	CENTRAL MONITORING BASIN (50X25)	RPCL
52	EFFLUENT TREATMENT PLANT (20X40)	RPCL
53	SLUDGE THICKENER UNIT (10X10)	RPCL
54	ASH HANDLING COMPRESSOR HOUSE/VACUUM PUMP HOUSE (30X15)	RPCL
55	ASH WATER PUMP HOUSE (40X10)	RPCL
56	MILL REJECT COMPRESSOR HOUSE (20X10)	RPCL
57	VACUUM PUMP SWITCH GEAR (30X20)	RPCL
58	AHP SWITCH GEAR (25X12)	RPCL
59	SILO MCC (10X12)	RPCL
60	SEAL WATER PUMP HOUSE (10X6)	RPCL
61	BOTTOM ASH OVER FLOW SUMP (4X3)	RPCL
62	FLY ASH INTEAMETED HOPPER (6M DIA) & FA DRAIN PIT	RPCL
63	WATER TREATMENT PLANT MCC (12X12)	RPCL
64	ASH WATER RECOVERY MICRO FILTER	RPCL
65	MANUAL UNLODING HOPPER	RPCL
66	H2 & CO2 CYLINDER STORAGE AREA	RPCL
67	MARSHALING YARD STAFF ROOM (EXISTING ADMIN BUILDING)	RPCL

NOTES:-
1. EXISTING NALA INDICATE PLANT TO BE MODIFIED TO SUIT PLANT DRAINAGE SYSTEM.

UPDATED BY BHEL ON 04/02/2011

UPDATED BY KPCL ON 18/27/29.01/02.02.2011

REV.	DATE	ALTD	CHD	APPD

REV.	DATE	ALTD	CHD	APPD
01	16.12.2010	YOGI	G.P.A	G.P.A

PLOT PLAN UPDATED LAND ON VARIOUS DISCURSIONS WITH UNIRAIL,BHEL & RPCL TILL DATE.

CLIENT: RAICHUR POWER CORPORATION LTD.

CLIENT'S CONSULTANT:
EVONIK ENERGY SERVICES (INDIA) PVT. LTD.
Corporate Office
A-29,Sector-16, Noida-201301, India

PROJECT
YERMARUS THERMAL POWER STATION
2 X 800 MW

TITLE
PLOT PLAN

DEPT CODE		NAME	SIGN.	DATE
M	DRN	YOGI		30.07.2010
	DESN	YOGI		30.07.2010
	CHD	K.B.P.		30.07.2010
	APPD	K.B.P.		30.07.2010

DEPT. | SCALE 1.5000 | DRAWING NO. E072-00-COMN-0-03-02
SIGN | DATE | SHEET 1 OF 1 | REV 01

DRAWING NO E072-00-COMN-0-03-02

A0

CONST
NORTH

FGD SPACE UNIT#2

FGD SPACE UNIT#1

BLOW DOWN PH

ASH SLURRY PUMP HOUSE (30x16)

ASH WATER PUMP HOUSE (40X10)

AHP SWG-1

FLY ASH INTEMETED HOPPER

DRAIN PIT

BOILER #2

BOILER #1

STACK

I.D. FANS

AHP SWG-2

VACUUM PUMP SWG

ASH HANDLING COMPRESSOR HOUSE/VACUUM PUMP HOUSE (20x15)

ESP PASS - A

ESP PASS - B

ESP PASS - C

ESP PASS - D

MILL REJECT SILO

RAW COAL BUNKER

MRH COM HOUSE

FIRE WATER BOOSTER PUMPS HOUSE

CPU REC. BUILDING

CST

CST PUMP HOUSE 12 X 7 M

SEAL WATER PH(10X6)

RO-DM PLANT 90MX70M

BULK ACID/ALKALI STG.TANKS

LDO TANKER UNLOADING

FO/LDO UNLOADING AND HANDLING

FO

OPEN & COVERED STORAGE YARD ELECTRICAL STORE

SERVICE BUILDING

RAILWAY SIDING

RAIL TRACK FOR TRANS HANDLING

DM TRANSFER PUMP HOUSE

SW/FW MCC

POTABLE WATER TANK

EL(-)0.2M

EL(-)0.1M

REFER PLOT PLAN FOR CONTINUATION

BHEL

CUST.

360.2

361.7

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL GROUND FLOOR ELEVATION OF 0.00M WHICH CORRESPONDS TO RL360.5M
3. EQUIPMENTS & FACILITIES SHOWN FOR PACKAGES ARE SUGGESTIVE ONLY.

REFERENCE DRGS:

SL NO	TITLE	NUMBER	UNIT
1	T.G. HALL CROSS SECTION	PE-DG-362-100-M007	PEM
2	TG EQUIPMENT PLAN AT EL8.5 M	PE-DG-362-100-M004	PEM
3	TG EQUIPMENT PLAN AT EL17.0 M	PE-DG-362-100-M005	PEM
4	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-362-100-M006	PEM
5	GA OF BOILER	00310-1E0001	TRY

RAICHUR POWER CORPORATION LIMITED
(A JVC OF KPCL & BHEL)

CONSULTANT EVONIK ENERGY SERVICES (INDIA) LTD

PROJECT 2x800MW YERMARUS SUPERCRITICAL TPP

BHARAT HEAVY ELECTRICALS LTD
POWER GROUP
PROJECTS ENGINEERING MANAGEMENT
NEW DELHI

DEPT CODE		NAME	SIGN	DATE
M	DRN	P. KUMAR	S/D~	18.09.2010
	DES'N	R. TIWARI	S/D~	18.09.2010
	CHD	R. TIWARI	S/D~	18.09.2010
	APPD	S. MALAVIYA	S/D~	18.09.2010

TITLE MAIN PLANT EQUIPMENT LAYOUT PLAN

DEPT. | SCALE 1:750 | DRAWING NO. PE-DG-362-100-M002

SIGN | DATE | SHEET 1 OF 1 | REV 01

SIZE-A0

JOB NO. 362
STATUS CONTRACT
DISTRIBUTION
TO
No.OFT

REV	DATE	ALTD	CHD	APPD

REV	DATE	ALTD	CHD	APPD
01	03.02.2011	PK	SPV	SM
01 02	TG LENGTH UPDATED. UPDATED IN GENERAL.			

COMPUTER FILE NAME: PE-DG-362-100-M002_R01

DRAWING NO. PE-DG-362-100-M002

CUSTOMER'S DRAWING NO.

FIRST ANGLE PROJECTION

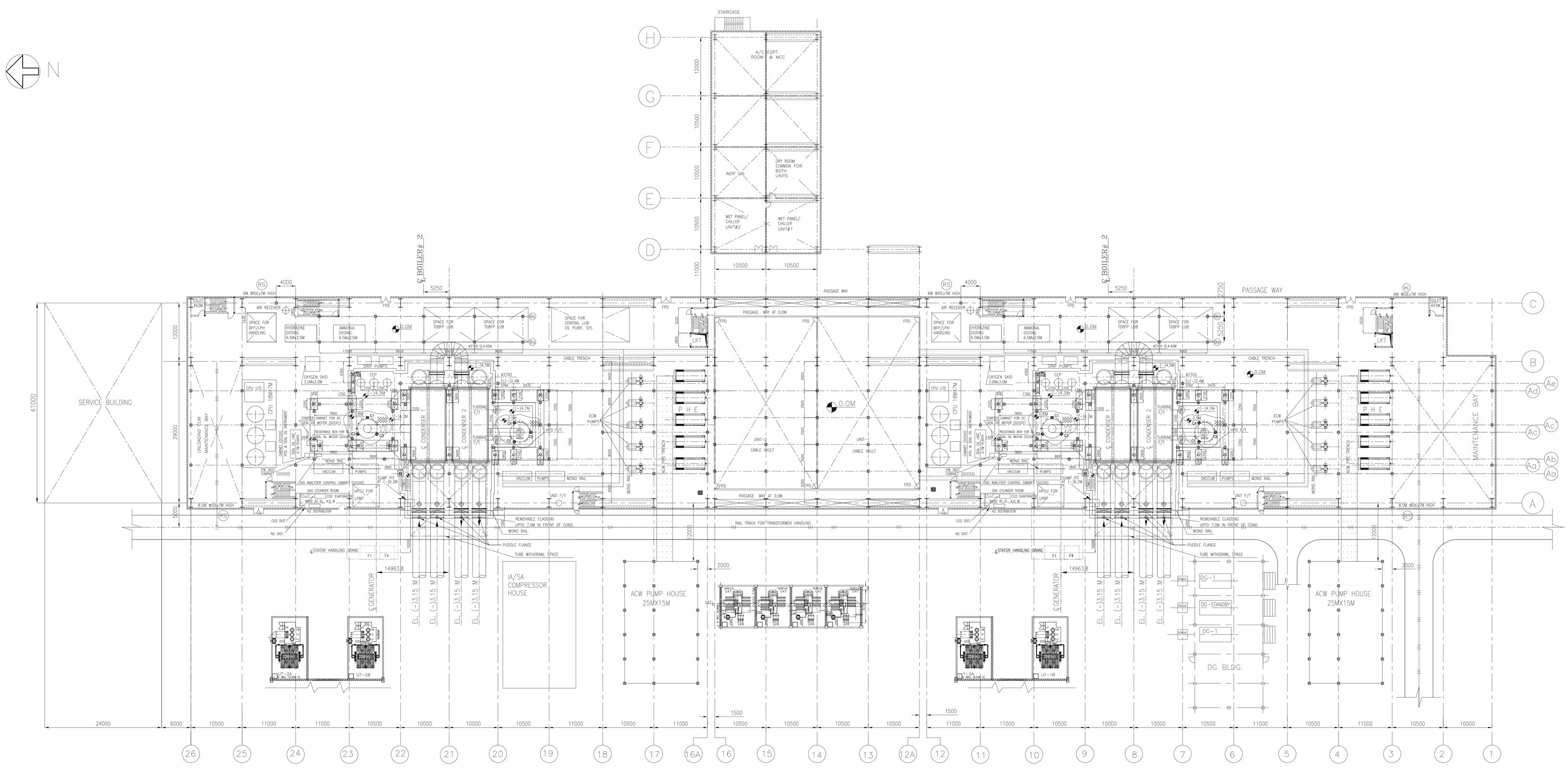
ALL DIMENSIONS ARE IN MM

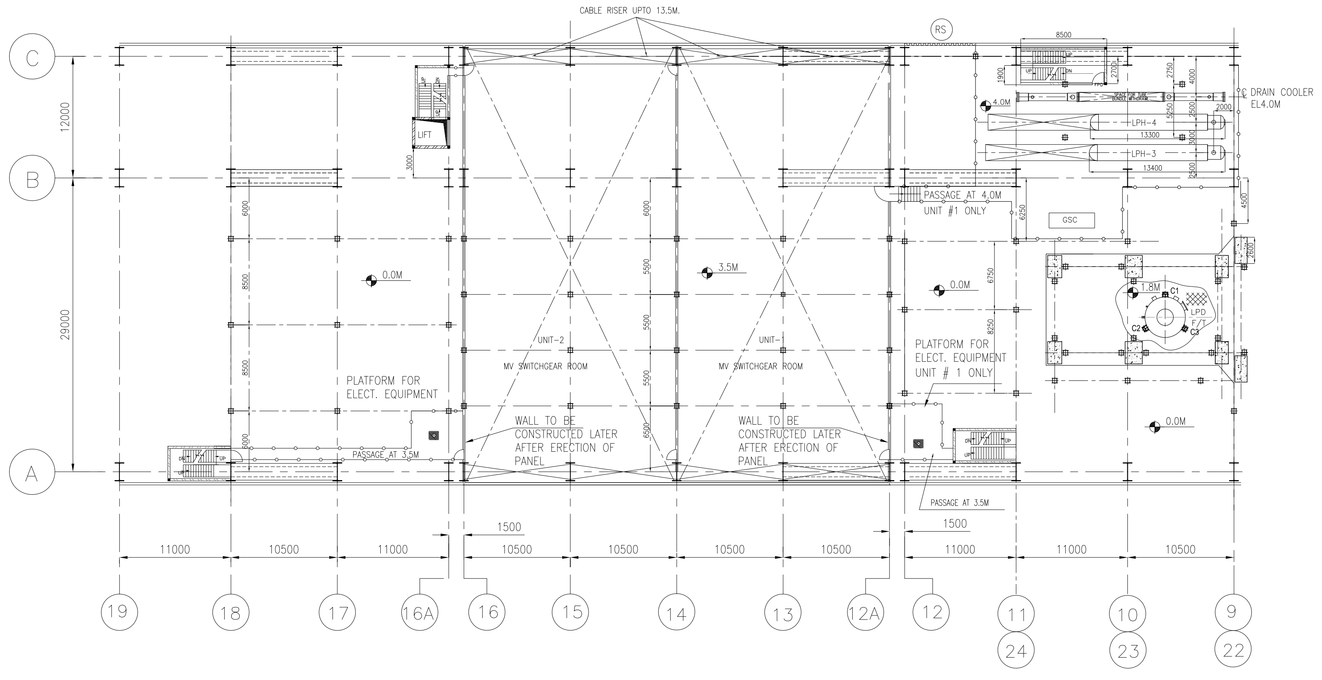
DRAWING NO PE-DG-362-100-M003

CUSTOMER'S DRAWING NO

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM





PLAN AT EL. 3.5/4.0M

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL GROUND FLOOR ELEVATION OF 0.0M WHICH CORRESPONDS TO RL 360.5M.
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 AND CONTROL TOWER COLUMNS ARE SUBJECT TO CIVIL DESIGN.
5. DIMENSIONS OF AUXILIARY BUILDINGS SHOWN IN THIS DRAWING ARE TENTATIVE. ACTUAL DIMENSION WILL BE FURNISHED DURING DETAIL ENGINEERING STAGE.

REFERENCE DRGS:

SL NO	TITLE	NUMBER	UNIT
1	T.G. HALL CROSS SECTION	PE-DG-362-100-M007	PEM
2	TG EQUIPMENT PLAN AT EL8.5 M	PE-DG-362-100-M004	PEM
3	TG EQUIPMENT PLAN AT EL17.0 M	PE-DG-362-100-M005	PEM
4	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-362-100-M006	PEM

LEGEND

- PIPE HATCH
- VERTICAL BRACING
- FPD FIRE PROOF DOOR
- GRATING
- CHEQUERED PLATE
- R REMOVABLE
- HAND RAILING
- PIPE & CABLE TRESTLE
- FIRE BARRIER WALL
- INDICATES PIPES/CABLE TRESTLE.
- (RS) ROLLING SHUTTER

REV	DATE	ALTD	CHD	APPD

REV	DATE	ALTD	CHD	APPD
01	03.02.2011	PK	SPV	SM
01	TG DECK SIZE MODIFIED.			
02	UPDATED IN GENERAL.			

JOB NO. 362
STATUS CONTRACT
DISTRIBUTION
TO
No.OFF

RAICHUR POWER CORPORATION LIMITED
(A JV OF KPCL & BHEL)

CLIENT'S CONSULTANT: EVONIK ENERGY SERVICES (INDIA) LTD

PROJECT
2x800MW YERMARUS SUPERCRITICAL TPP

BHARAT HEAVY ELECTRICALS LTD
POWER GROUP
PROJECTS ENGINEERING MANAGEMENT
NEW DELHI

DEPT CODE		NAME	SIGN	DATE
M	DRN	P. KUMAR		01/10/2010
	DESN	R. TIWARI		01/10/2010
	CHD	R. TIWARI		01/10/2010
	APPD	S. MALAVIYA		01/10/2010

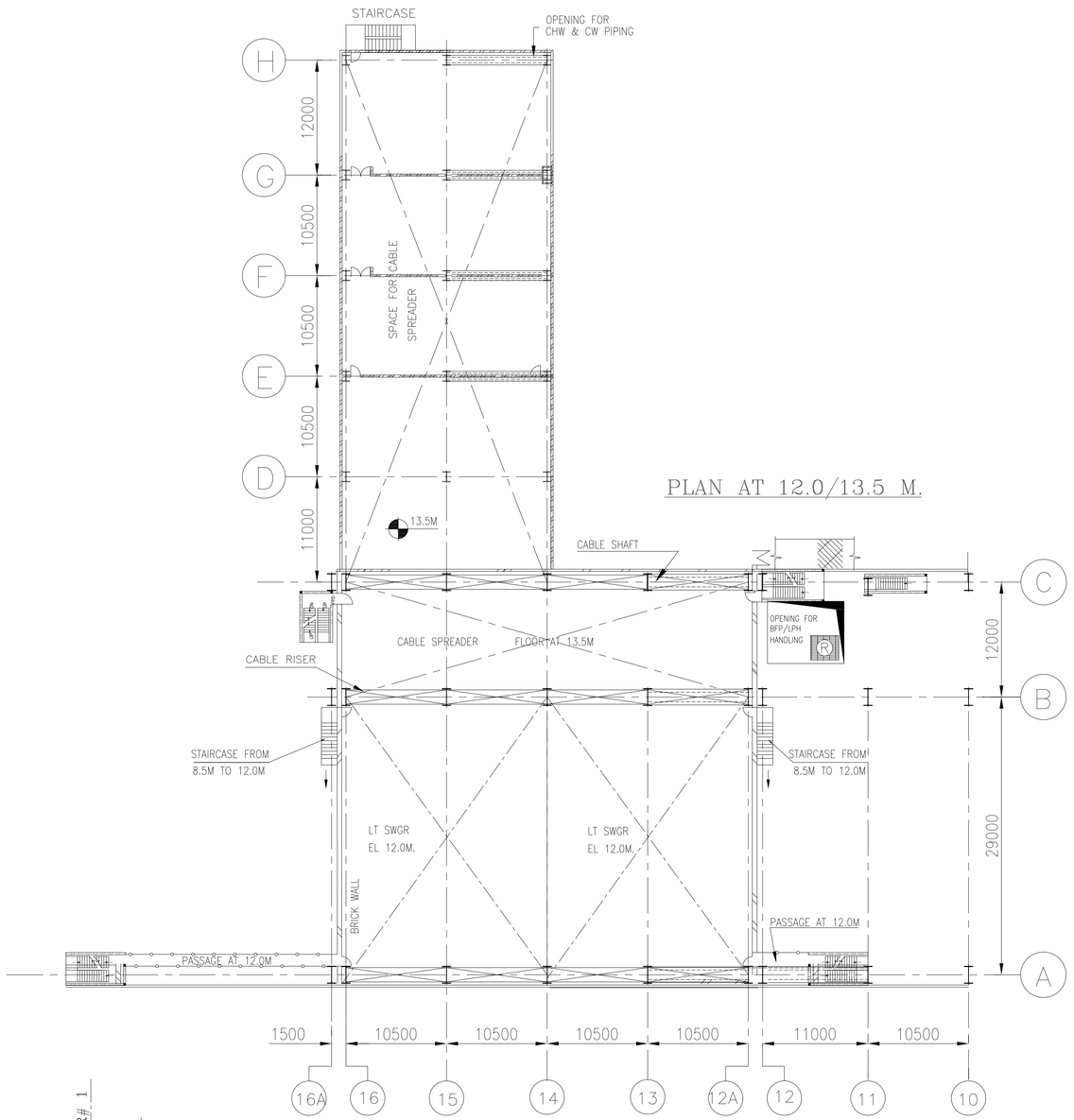
TITLE
TG EQUIPMENT PLAN AT EL 0.0 M

DEPT. | SCALE 1:300 | DRAWING NO. PE-DG-362-100-M003
SIGN
DATE | SHEET 1 OF 1 | REV 01

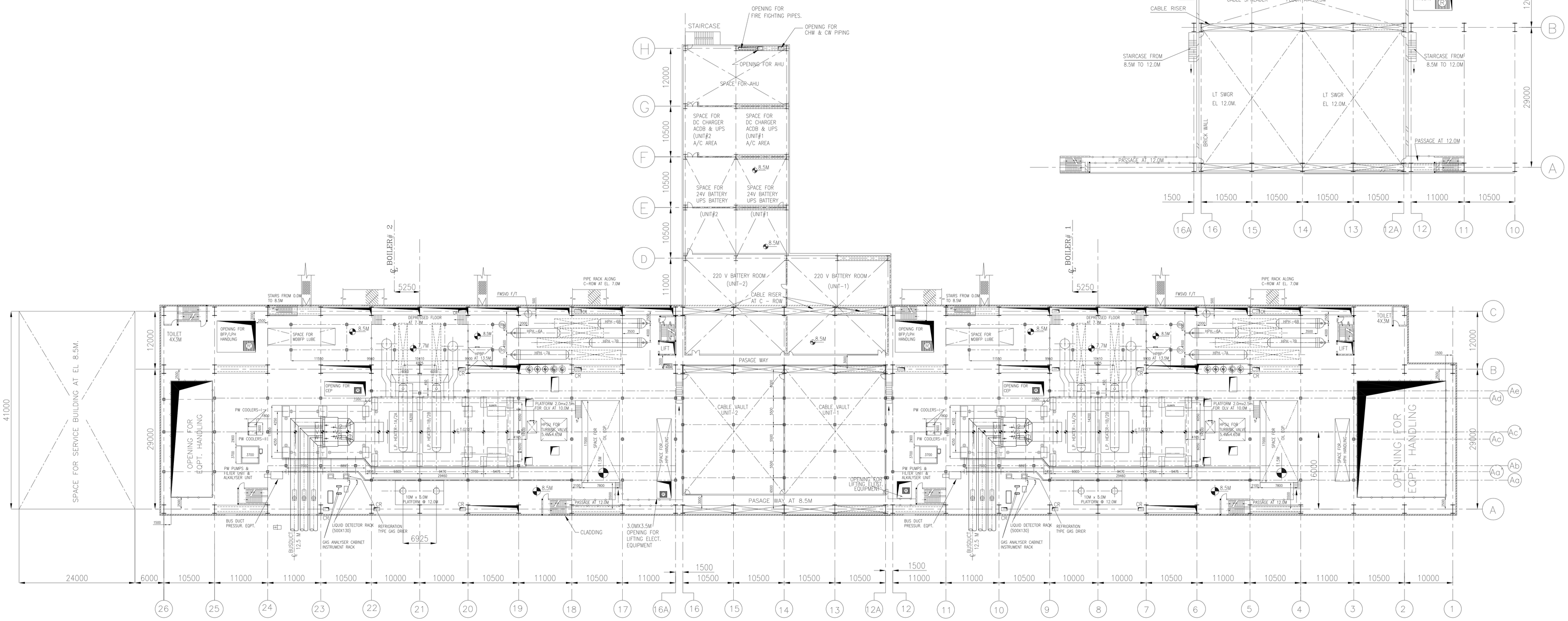
SIZE-A0

COMPUTER FILE NAME: PE-DG-362-100-M003_R1

N



PLAN AT 12.0/13.5 M.



PLAN AT EL. 7.7/8.5/11.5 M

LEGEND

- PIPE HATCH
- VERTICAL BRACING
- FPD — FIRE PROOF DOOR
- GRATING
- CHEQUERED PLATE
- R — REMOVABLE
- HAND RAILING
- PIPE & CABLE TRESTLE
- FIRE BARRIER WALL
- INDICATES PIPES/CABLE TRESTLE.
- (RS) — ROLLING SHUTTER

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL GROUND FLOOR ELEVATION OF 0.00M WHICH CORRESPONDS TO RL 360.5M.
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 AND CONTROL TOWER COLUMNS ARE SUBJECT TO CIVIL DESIGN.

CR: OPENING FOR CABLE RISER

REFERENCE DRGS:

SL NO	TITLE	NUMBER	UNIT
1	T.G. HALL CROSS SECTION	PE-DG-362-100-M007	PEM
2	MAIN EQUIPMENT PLAN AT EL 0.0 M	PE-DG-362-100-M002	PEM
3	TG EQUIPMENT PLAN AT EL17.0 M	PE-DG-362-100-M005	PEM
4	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-362-100-M006	PEM

REV	DATE	ALTD	CHD	APPD

REV	DATE	ALTD	CHD	APPD
01	03.02.2011	PK	SPV	SM
01 02	TG DECK SIZE MODIFIED. UPDATED IN GENERAL.			

JOB NO. 362
STATUS CONTRACT
DISTRIBUTION
TO
No.OFT

RAICHUR POWER CORPORATION LIMITED
(A JV OF KPCL & BHEL)

CLIENT'S CONSULTANT EVONIK ENERGY SERVICES (INDIA) LTD

PROJECT
2x800MW YERMARUS SUPERCRITICAL TPP

BHARAT HEAVY ELECTRICALS LTD
POWER GROUP
PROJECTS ENGINEERING MANAGEMENT
NEW DELHI

DEPT CODE		NAME	SIGN	DATE
M	DRN	P. KUMAR		18/09/2010
	DESN	R. TIVARI		18/09/2010
	CHD	R. TIVARI		18/09/2010
	APPD	S. MALAVIYA		18/09/2010

TITLE
TG EQUIPMENT PLAN AT EL 8.5 M

DEPT. | SCALE 1:300 | DRAWING NO. PE-DG-362-100-M004
SIGN
DATE
SHEET 1 OF 1 | REV 1

SIZE-A0

COMPUTER FILE NAME PE-DG-362-100-M004 R1

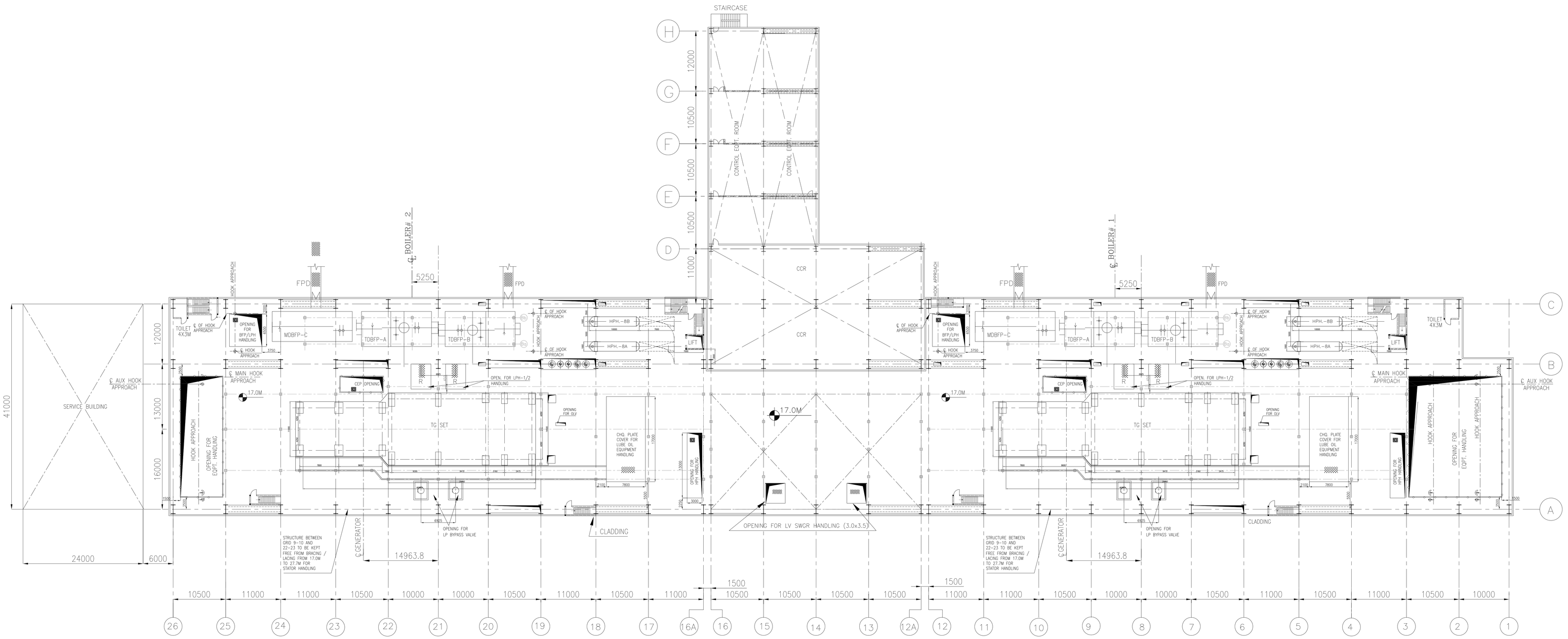
DRAWING NO PE-DG-362-100-M005

CUSTOMER'S DRAWING NO

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

N



PLAN AT EL. 17.0M

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL GROUND FLOOR ELEVATION OF 0.00M WHICH CORRESPONDS TO RL 360.5M.
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 AND CONTROL TOWER COLUMNS ARE SUBJECT TO CIVIL DESIGN.

REFERENCE DRGS:

SL NO	TITLE	NUMBER	UNIT
1	T.G. HALL CROSS SECTION	PE-DG-362-100-M007	PEM
2	MAIN EQUIPMENT PLAN AT EL 0.0 M	PE-DG-362-100-M002	PEM
3	TG EQUIPMENT PLAN AT EL 8.5 M	PE-DG-362-100-M004	PEM
4	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-362-100-M006	PEM

LEGEND

- PIPE HATCH
- VERTICAL BRACING
- FPD FIRE PROOF DOOR
- GRATING
- CHEQUERED PLATE
- R REMOVABLE
- HAND RAILING
- PIPE & CABLE TRESTLE
- FIRE BARRIER WALL
- INDICATES PIPES/CABLE TRESTLE.
- RS ROLLING SHUTTER

REV	DATE	ALTD	CHD	APPD

REV	DATE	ALTD	CHD	APPD
01	03.02.2011	PK	SPV	SM
02	TG DECK MODIFIED. UPDATED IN GENERAL.			

JOB NO. 362
STATUS CONTRACT
DISTRIBUTION
TO
No.OFF

RAICHUR POWER CORPORATION LIMITED
(A JV OF KPCL & BHEL)

CLIENT'S CONSULTANT EVONIK ENERGY SERVICES (INDIA) LTD

PROJECT
2x800MW YERMARUS SUPERCRITICAL TPP

BHARAT HEAVY ELECTRICALS LTD
POWER GROUP
PROJECTS ENGINEERING MANAGEMENT
NEW DELHI

DEPT CODE		NAME	SIGN	DATE
M	DRN	P. KUMAR		18/09/2010
	DESN	R. TIVARI		18/09/2010
	CHD	R. TIVARI		18/09/2010
	APPD	S. MALAVIYA		18/09/2010

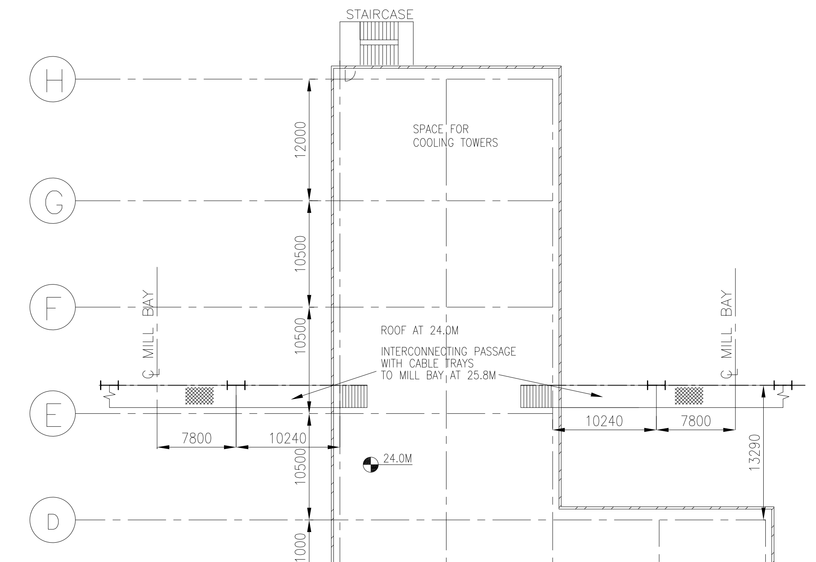
TITLE
TG EQUIPMENT PLAN AT 17.0M

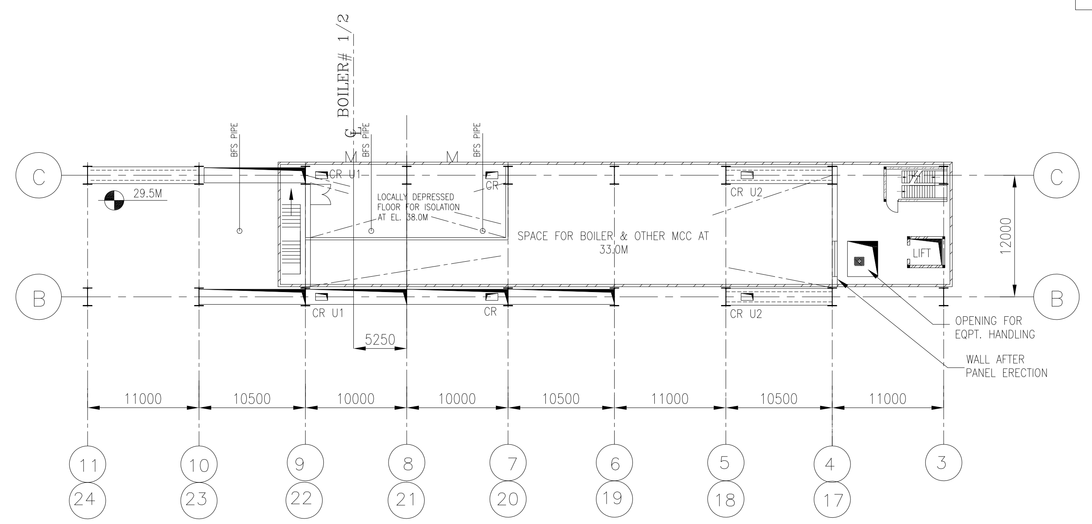
DEPT. SCALE 1:300 DRAWING NO. PE-DG-362-100-M005
SIGN
DATE
SHEET 1 OF 1 REV 01
SIZE-A0

COMPUTER FILE NAME PE-DG-362-100-M005_R1

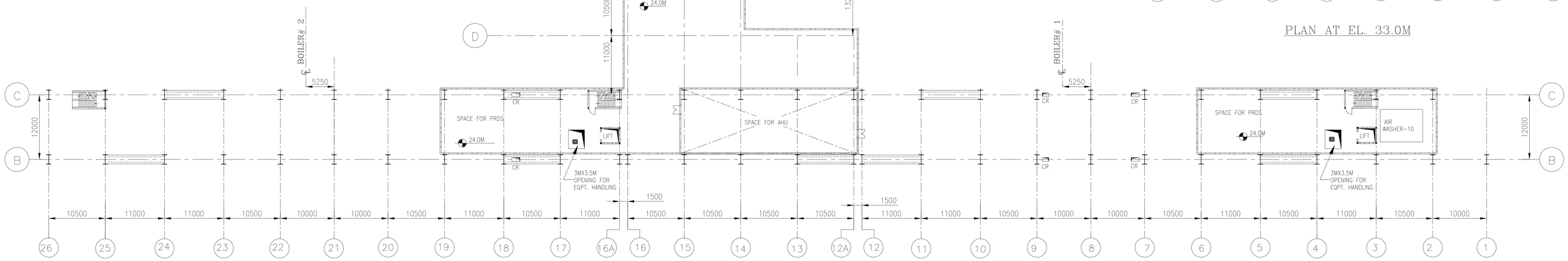
FIRST ANGLE PROJECTION — ALL DIMENSIONS ARE IN MM

N

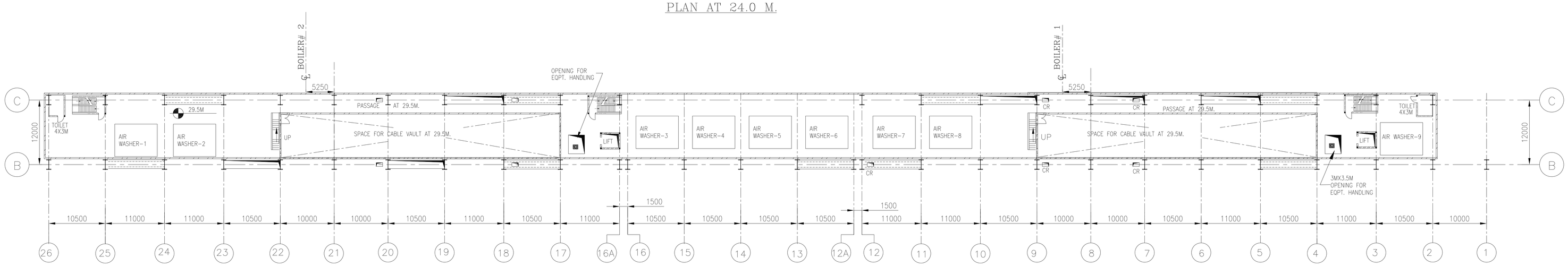




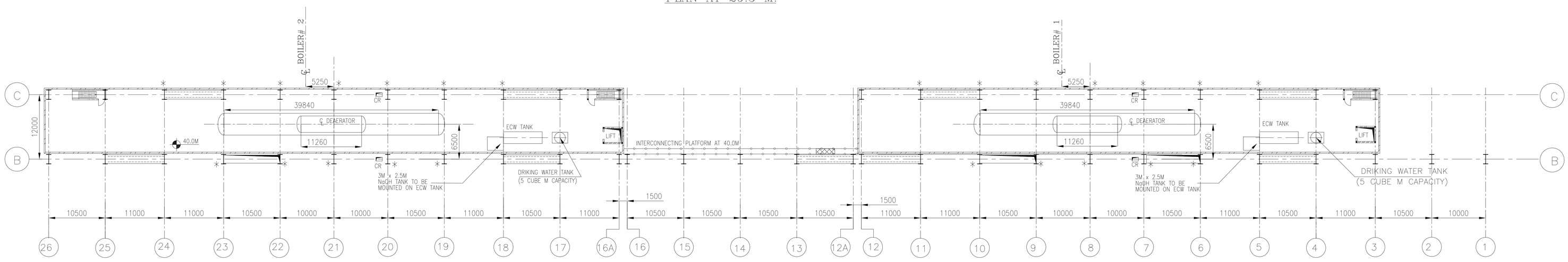
PLAN AT EL. 33.0M



PLAN AT 24.0 M.



PLAN AT 29.5 M.



PLAN AT EL. 40.0M

NOTES:-

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL GROUND FLOOR ELEVATION OF 0.00M WHICH CORRESPONDS TO RL 360.5M.

REFERENCE DRGS:

SL NO	TITLE	NUMBER	UNIT
1	T.G. HALL CROSS SECTION	PE-DG-362-100-M007	PEM
2	MAIN EQUIPMENT PLAN AT EL 0.0 M	PE-DG-362-100-M002	PEM
3	TG EQUIPMENT PLAN AT EL 8.5 M	PE-DG-362-100-M004	PEM
4	TG EQUIPMENT PLAN AT 17.0 M	PE-DG-362-100-M005	PEM
5	GA OF DEAERATOR	1-163-10-11374_R0	HYD

REV	DATE	ALTD	CHD	APPD
01	03.02.2011	PK	SPV	SM
02	SIZE AND ELEVATION OF DEAERATOR UPDATED. UPDATED IN GENERAL.			

JOB NO. 362
STATUS CONTRACT
DISTRIBUTION
TO
No.OFT

LEGEND

- PIPE HATCH
- VERTICAL BRACING
- FPD FIRE PROOF DOOR
- GRATING
- CHEQUERED PLATE
- R REMOVABLE
- HAND RAILING
- PIPE & CABLE TRESTLE
- FIRE BARRIER WALL
- INDICATES PIPES/CABLE TRESTLE.
- RS ROLLING SHUTTER
- CR: OPENING FOR CABLE RISER
- COLUMNS UPTO 52.0M

RAICHUR POWER CORPORATION LIMITED
(A JVC OF KPCL & BHEL)

CLIENT'S CONSULTANT: EVONIK ENERGY SERVICES (INDIA) LTD

PROJECT
2x800MW YERMARUS SUPERCRITICAL TPP

BHARAT HEAVY ELECTRICALS LTD
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NEW DELHI

DEPT CODE		NAME	SIGN	DATE
M	DRN	P. KUMAR		18/09/2010
	DES'N	R. TIVARI		18/09/2010
	CHD	R. TIVARI		18/09/2010
	APPD'D	S. MALAVIYA		18/09/2010

TITLE
TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY

DEPT.	SCALE 1:300	DRAWING NO.
SIGN		PE-DG-362-100-M006
DATE		SHEET 1 OF 1 REV 01

SIZE-A0

COMPUTER FILE NAME: PE-DG-362-100-M006_R1

Corrigendum will form and part of the tender specification. Hence bidders are requested to submit the corrigendum along with their offer.

Please visit www.bhel.com for corrigendum.

ALL OTHER CONDITIONS AND DUE DATE & TIME FOR OPENING OF TECHNICAL BIDS : 03.09.2011, 15.30 HRS REMAINS UNCHANGED.

AGM / CONTRACTS