BHARAT HEAVY ELECTRICALS LIMITED

PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-28-Jan-25

CORRIGENDUM- 04

PROJECT	**:**	**1x800 MW NTPC SIPAT STP PROJECT, STAGE-III (EPC)**
PACKAGE	**:**	**COOLING TOWER - Induced Draft Cooling Towers (IDCT)**
ENQUIRY NO	**:**	**77/23/6186/AMI Date 11.12.2024**
SUBJECT	**:**	**Tender due date extension & replies to pre-bid queries**

Type of Corrigendum			
Technical Corrigendum -	☐	Commercial Corrigendum -	☑

Bidders are requested to note:

Due date & time of bid submission has been extended up to 11.02.2025 @ 01:00 PM. Bid opening shall be done at 04:00 PM on the due date.

All the other terms and conditions of the tender enquiry remain unchanged.

Replies to pre-bid queries are enclosed.

All the bidders are requested to quote accordingly.

Yours faithfully,

For and on behalf of BHEL

Amit Kumar
Manager/BOP

Sl No	Reference				Queries dated 17-12-2024	Response from BHEL vide Corrigendum 2 dtd. 31.12.2024	follow-up queries dtd. 15-01-2025	BHEL response to Follow-up / Set-2 queries
	Sl No.	Section	Chapter / Cl. No	Page No.				
					COMMERCIAL			
1	3	Tender Notice_1	NIT / Cl. 28	3 of 11	For a project of this dimension Bidder expects 10% interest-free advance on Main Supply contract value. Please confirm. Referring to release of last 10% payment on Main Supply, kindly note that PG test will depend upon the ideal test conditions viz., plant load, etc. which is beyond cooling tower contractor's control. Hence Bidder cannot continue to extend the validity of the subject BG till completion of the PG Test, which is not under our control. Therefore, there should be a cut-off period for revalidating the BG. Ideally the PBG should be valid till the warranty period only.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We request BHEL to re-look into this requirement of Bidder of specifying a cut-off period for re-validating the Bank Guarantee. This is a very practical request from Bidder.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
2	4	Tender Notice_1	NIT / Cl. 28	3 of 11	Bidder expects 10% interest-free advance on E&C contract value. Please confirm. Referring to release of last 10% payment on E&C, kindly note that PG test will depend upon the ideal test conditions viz., plant load etc. which is beyond cooling tower contractor's control. Hence in case PG test / demonstration test of the cooling tower(s) cannot be completed within one year after completion of commissioning of cooling tower(s), for reasons not attributable to the contractor, BHEL shall release payment towards PG Test / demonstration test of the cooling tower(s) against existing performance security, valid till warranty period, that would have been submitted as per NIT Clause No 35 (Page 5 of 11). PLease confirm.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We request BHEL to accept this requirement of Bidder.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
3	6	Tender Notice_1	NIT / 28 (i) (a)	3 of 11	Contractor do not agree to additional BG provisions against mobilization advance of 5% as the payment of 5% will be paid after mobilization and installation, which is not logical. Further, if BG is provided, a mechanism to reduce the BG against recoveries in bill is to be done by BHEL. Further, when will these BGs be discharged need to be clarified by BHEL.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We once againd request BHEL to delete this requirement of submission of additional Bank Guarantee.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
4	7	Tender Notice_1	NIT / 28 (ii)	3 of 11	For the last 10% payment against Civil Work, In case PG test / demonstration test of the cooling tower(s) cannot be completed within one year after completion of commissioning of cooling tower(s), for reasons not attributable to the contractor, BHEL shall release payment towards PG Test / demonstration test of the cooling tower(s) against existing performance security that would have been submitted as per NIT Clause 35 (Page 5 of 11). Please confirm.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We request BHEL to accept this requirement of Bidder.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
5	8	Tender Notice_1	NIT / Cl. 35	5 of 11	This is understood to be applicable in case of a composite contract or for E&C package. Please provide PBG validity terms for Supply, Mandatory Spares and Civil packages.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	As per standard BHEL practice, separate contracts are released for Supply, Mandatory Spares and Civil / Service packages. Hence ttis query needs to be responded with more clarity. The tender document is silent on the validity terms	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
6	11	Tender Notice_1	NIT / CL. 38	7 of 11	Please clarify whether BOCW Cess is applicable for the subject project. In case same is applicable, please confirm that BOCW Cess, as generally applicable on civil construction scope of work for cooling tower, shall be reimbursed by BHEL as per the guiding principles for BOCW Act and the Cess Act.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	Based on the tender documents Bidder is going ahead considering that BOCW Cess shall be borne by BHEL.	Already replied in Corr-2 dtd 31.12.2024
7	13	TenderNotice-8 / Annexure-I	3.1.1.a & b	1 of 151	Bidder / Contractor objects to the phrase "as per availability within project premises". BHEL to ensure availability within the premises and within 100-150 meters from the site location.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	Noted. However Bidder requests BHEL to mark in the plant layout the probable location where limited space may be available.	Already replied in Corr-2 dtd 31.12.2024. Advised for site visit if required.
8	17	TenderNotice-8 / Annexure-I	3.8.1	4 of 151	Bidder / Contractor objects to the phrase "as per availability within project premises". BHEL to ensure availability within the premises and within 100-150 meters from the site location.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	Noted. However Bidder requests BHEL to mark in the plant layout the probable location where limited space may be available.	Already replied in Corr-2 dtd 31.12.2024. Advised for site visit if required.

Sl No		Reference			Queries dated 17-12-2024	Response from BHEL vide Corrigendum 2 dtd. 31.12.2024	follow-up queries dtd. 15-01-2025	BHEL response to Follow-up / Set-2 queries
	Sl No.	Section	Chapter / Cl. No	Page No.				
9	32	Tender Notice_7 / SCC	SCC	General	Following provisions need to be incorporated in SCC / NIT: (a) Timeline for approval of drawing / documents. (b) Provision of Change Order should be incorporated. (c) Provision towards extension of time. (d) Formal Contract Agreement format is required for our review & comments, if any. (e) Order of precedence.	(a) Please follow specification, section 9 (b) of Book 1 of 2 of technical specification. Same is re-iterated as follow: "BHEL / Customer comments on drgs/docs shall be furnished within 14 days of submission date. However, drgs/docs submitted shall be complete in all respects with revised drawing submitted incorporating all comments. Any incomplete drawing submitted shall be treated as non-submission with delays to bidder's account. For any clarification/ discussion required to complete the drawings, the bidder shall himself depute his personal to BHEL for across the table discussions/ finalizations/ submissions of drawings." (b) Bidder to follow tender terms and conditions. (c) Bidder to follow tender terms and conditions. (d) Bidder to follow tender terms and conditions. (e) Already given in GCC BOP.	Response to Sl Nos b and d is not available in the tender terms and conditions. Kindly furnish the Clause Nos where these points have been clarified in the tender document.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
10	34	Tender Notice_9	Price Adjustment - PVC	2-5 of 114	Price Adjustment Clause / PVC should be applicable for entire duration of contract period, as accepted by BHEL in their recent tenders. Please confirm. In case of delays for reasons not solely attributable to the bidder / contractor, L3 schedule shall be revised and PVC needs to be calculated and paid based on revised L3 schedule. Please confirm. We request BHEL to increase the PVC capping from 10% to 15% (or as agreed between BHEL and NTPC in its separate contract, if same is more than 15%/ having no capping) In case of negative price variation, payable amount to be restricted to ZERO. Please confirm. Price Adjustment Formula for Supply and Mandatory Spares should not be limited to Plastic, Steel, Electrical Equipment and Labour components only. Bidder / Contractor should be allowed to furnish the list along with assigned co-efficients for items on which PVC should be applicable. This requirement of Bidder is in line with standard NTPC tender norms. It is understood that "If the works are executed in an x month, then indices pertaining to that particular x month shall be considered (subscript 1) for calculation irrespective of the month the work has to be completed as per L3 schedule	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We once again request BHEL to agree to make the Price Adjustment Clause / PVC applicable for the entire duration of contract period.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
11	44	Tender Notice - 9 / GCC	GCC Cl. 10 / Recovery of Outstanding Payment of Other Contracts	58 of 114	Contractor doesn't agree to adjustment of recoveries from any other contract against this contract.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	This stipulation is not acceptable to Bidder. Bidder once again requests BHEL to delete this requirement.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.

Sl No		Reference			Queries dated 17-12-2024	Response from BHEL vide Corrigendum 2 dtd. 31.12.2024	follow-up queries dtd. 15-01-2025	BHEL response to Follow-up / Set-2 queries
	Sl No.	Section	Chapter / Cl. No	Page No.				
12	48	Tender Notice - 9 / GCC	GCC BOP - GCTC / Clause No 33.2	71 of 114	Arbitration should be by joint arbitration procedure as per Arbitration & Conciliation Act, 1996 and as amended thereafter. The arbitration shall be conducted by a tribunal of three arbitrators, each party shall appoint one arbitrator, and the two arbitrators so appointed shall appoint the third arbitrator who shall act as the presiding arbitrator. If the two arbitrators fail to agree on the name of the presiding arbitrator, then appointment shall be made as per the provisions of Section 11 of the Arbitration & Conciliation Act, 1996 read with all its subsequent amendments up-to-date. Please confirm	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.	We request BHEL to agree to joint arbitration procedure as per Arbitration & Conciliation Act, 1996.	Bidder to follow tender terms and conditions. There is no change in tender terms & conditions.
TECHNICAL								
13	70	Technical Specification No. PE-DC-520-IDCT Vol II B (Tender Notice 4)	Plot Plan	19 of 44	Kindly confirm the following w.r.t the plot plan drawing as furnished : i. Bidder requests BHEL to shift the structures marked as ETP, IDCT MCC buildings, pipe racks etc. appearing along one of the longitudinal sides of the cooling tower further away, so that unwanted blocking on the air entry side of the proposed cooling tower is avoided. Also, there needs to be adequate space around the cooling tower structure for laying of foundation and RCC basin along with HW return header piping. ii. We have noted that 260 M x 40 M space has been provided for cooling tower location. Howevver, based on layout, please confirm the maximum length upto which the tower may be extended within allowable limits. iii. Please confirm that the dotted "RAW WATER LINE" and "STORAGE AREA FOR REJECT COAL BOULDER" intercepting the IDCT area shall be relocated by BHEL suitably before handing of clear encumbrance-free cooling tower site to Contractor.	i. Refer reply to the query mentioned at sl. No. 77. Ii. Cooling tower can be extended up to allowable limits as per tender specification. Iii. Clear space will be provided upto allowable limits as per tender specification.	Please furnish the height / details of the structures / obstructions in the vicinity of the proposed IDCT, as applicable on the air entry sides of the subject cooling tower..	**Refer reply to the query mentioned at sl. No. 77.**
14	71	Technical Specification No. PE-DC-520-IDCT Vol II B (Tender Notice 4)	3.01.01 / Annexure A	1 of 44	This stipulation is not acceptable to Bidder. BHEL / Owner should take responsibility for the correctness of the geo-technical investigation report provided along with tender. Onus of correct assessment / interpreptation and understanding of provided geo-technical investigation report / bore log data is Bidder's responsibility but the correctness of the data given by BHEL / Owner as part of the tender document has to be ensured by BHEL / Owner only. Any price &/or time implication due to change in the actual soil profile, if encountered by Bidder / Contractor during execution stage, should be borne by BHEL / Owner. Please confirm.	Bidder to follow technical specification.	Response is not acceptable to Bidder. BHEL / Owner should take responsibility for the correctness of the geo-technical investigation report enclosed with te specification.	**Bidder to follow specification (Borelog data avialable) along with recommended bearing capacity report, already signed with BHEL and NTPC.**
15	72	Technical Specification No. PE-TS-508-165-W001 (Tender Notice 3)	General	-	We understand that the correctness of the geo-technical investigation report is the responsibility of BHEL / Owner. Nature of soil, type of foundation, soil bearing capacity, sub-soil water, etc. should be considered by Bidder for estimation purpose based on available geo-technical investigation report only. However, any price &/or time implication due to change in the actual soil profile, if encountered by Bidder / Contractor during execution stage, should be borne by BHEL / Owner. Please confirm.	Bidder to follow technical specification.	Response is not acceptable to Bidder. The geo-technical investigation report enclosed with te specification is the only document based on which a Bidder has to adopt the accurate foundation system for the coolign towers and hence BHEL / Owner should take responsibility for the correctness of the available soil report of cooling towers' location.	**Bidder to follow specification (Borelog data avialable) along with recommended bearing capacity report, already signed with BHEL and NTPC.**

Sl No	Reference			Queries dated 17-12-2024	Response from BHEL vide Corrigendum 2 dtd. 31.12.2024	follow-up queries dtd. 15-01-2025	BHEL response to Follow-up / Set-2 queries
	Sl No.	Section	Chapter / Cl. No	Page No.			
16	74	Technical Specification No. PE-DC-520-IDCT Vol II B (Tender Notice 4)	General	--	Plrease confirm that dismantling & disposal / re-routing (as applicable) of existing over-ground as well as underground facilities, if applicable within Bidder's scope limit, is BHEL's responsibility prior to handing over of the cooling tower site to Bidder / Contractor.	Dismantling & disposal of existing over-ground as well as underground facilities coming within IDCT area(if applicable) will be in Bidder's scope. Further, Earth work in stripping of top soil upto a maximum depth of 0.30 m below ground level so as to exclude all debris, grass, vegetation, bushes, trees having girth upto 300 mm including roots and organic materials etc for leveling and grading including dressing to specified levels & grades and compacting the graded/stripped surface by manual/mechanical means, disposal of stripped materials all complete shall be in bidders scope.	Noted. However, BHEL is requested hereby to furnish the underground scanning report for the cooling tower area.	**Bidder to follow specification (Borelog data avialable) along with recommended bearing capacity report, already signed with BHEL and NTPC.As per Geo technical report and approved plot plan(copy attached),there is no existing system/building present at the location of IDCT.However, if bidder wants may visit the site for better understanding of site.**
17	77	PCTL Email dtd. 23-12-2024	General	-	In addition, as discussed during the pre-bid meeting, in continuation of our pre-bid query Sl No 70 dated 17-12-2024, based on our experience we suggest that the distance between the outer edges of the subject Cooling Tower structure and the Effluent Treatment Plant building / structure (as shown in the layout located on one of the longitudinal air inlet faces of the subject cooling tower) must be maintained as minimum 50% of the length of the cooling tower to ensure optimum performance of the cooling tower. Moreover, we recommend that the edges of the ETP building / structure and the subject Cooling Tower structure should be kept as much staggered as possible w.r.t. each other within the available layout to achieve the desired optimised cooling tower performance.	ETP space as indicated in the plot plan is combination of various buildings/facilities. However, clear space of 40 M shall be provided from cooling tower as per standard practice.	Please furnish the height(s) and dimentional details of the various buildings / facilities / above ground structures in close vicinity of the proposed IDCT to help bidder analyse the expected level of obstruction on the air entry sides of IDCT.	**Please note that tallest structure in ETP area shall be less than 10 meter from FGL. Further detailing of various facilities and layout shall be provided after ordering of package**
Additional queries received through mail dated 22.01.25							
-	-	-	-	-	-	-	In addition kindly note that as per Tendernotice-3 / Page No 60 of 339 there is a mention of Annexure-III for Polyurethane coating & Annexure-G for High Performance Moisture Compatible Corrosion Resistant Coating System for IDCT. These two annexures have been also referred to under Sl No 69 of BHEL Reply to pre-bid queries available in Corrigendum-02 and as per your response above annexures are available in Page 338-339 of Technical Specification (Book 2 of 2). While Specification for High Performance Moisture Compatible Corrosion Resistant Coating System Specification is available in Page 338-339 of Technical Specification (Book 2 of 2), we could not locate the Specification for Polyurethane Coating in the specification.	Few details for Polyurethane coating is available and further detail has been suggested to follow Annexure III as mentioned in page no 60 of 339. However Annexure III does not contain certain further detail. Therefore Polyurethane coating detail shall be referred as available in specification.

Sr. No.	Part No./ Section	Page No.	Clause No.	Tender Requirement	Bidder's Query	BHEL's Response
	Tech Spec 1	4 of 223 and 5 of 223	-----	Climatological table	The climatological table provided in tender document is not fully readable. Please share readable copy.	Please note that climatological data is readable.
2	Tech Spec 1	6 of 223	2.1	Two (2) numbers motor operated inching type butterfly valves of size 2800 NB mm for Cooling tower for isolating the hot water riser/header to the cooling tower along-with valve supports.	As per specification requirement the purpose of providing butterfly valves is to isolate hot water riser as well. Since, the hot water risers will have individual butterfly valves for isolation, the requirement of providing 2 nos. 2800 NB mm butterfly valves in header is nullified. We request BHEL to delete the header valves from scope.	Bidder to follow specification.
3	Tech Spec 1	6 of 223	11	Provision of three numbers of Isolation (Gate valve) Valves (in the stub connections) at the locations (in purchaser's scope of CW Piping) where flow measurement is to be carried out by means of pitot tubes.	We understand that only provision for isolation gate valve is required to be given. Supply and installation of gate valve will be carried out by BHEL. Please confirm if our understanding is correct.	Please note that supply of pitot tube along with gate valve is in bidder's scope.
4	Tech Spec 1	10 of 223	4	In the event of any conflict between the requirements of two clauses of this specification, documents or requirements of different codes and standards specified, stringent requirement as per the interpretation of the BHEL / owner shall apply	Please provide the order of precedence of documents during bidding stage itself.	Bidder to follow specification.
5	Tech Spec 1	11 of 223	18	The sizing of the hot water distribution system shall be done by limiting the velocity through the pipes to a maximum of 2.0 m/sec.	We request that the velocity to be considered for sizing the hot water distribution system should be left to the bidders as far as the bidder is able to meet the puping head limitation specified in the specifications. Please confirm your acceptance.	Bidder to follow specification.
6	Tech Spec 1	39 of 223	39	Bidder may note the thermal calculations must be enclosed with the offer.	Thermal calculations are a part of engineering documents that are submitted for approval after award of contract. We request that this may not be asked during bidding stage. Please confirm your acceptance.	Bidder to follow specification.
7	Tech Spec 1	16 of 223	47.9	Bidder to provide temperature transmitter along with junction box & other erection hardware	Please inform the location where this temperature transmitter is required to be installed. As per clause 47.4.1, one temperature elements with temperature transmitter and temperature gauge for each gearbox is required to be supplied and installed by bidder.	Please note that instruments mentioned in the specfication are minimum.
8	Tech Spec 1	20 of 223	4.1.5	For RCC cooling towers Material of construction of Fan Cylinder/ recovery stack - RCC	It is an accepted practise to use FRP fan cylinder / recovery stack even for RCC cooling towers. We request that FRP stacks be accepted even for RCC cooling towers. FRP stacks have technical advantage over RCC stacks viz. accurate tip clearance thereby improving the fan performance, factory maufactured, easier and faster installation. Please confirm your acceptance.	Bidder to follow specification.
9	Tech Spec 1	21 of 223	4.8	Material of construction of fill support - SS 316 grid	SS 316 grid will be applicable only for one type of splash fill i.e. V bar. For other type of splash fill i.e. grid fill, SS 316 wires are provided that are hung from top. For fills that are bottom supported, the support will be of RCC or FRP depending on the MOC of cooling tower offered. Please confirm your acceptance.	Noted. However, same shall be subject to NTPC approval during detailed engineering.

Sr. No.	Part No./ Section	Page No.	Clause No.	Tender Requirement	Bidder's Query	BHEL's Response
10	Tech Spec 1	23 of 223	3.12.00	Bidder should submit thermal design documents viz. heat balance calculations, tower characteristics, pressure drops, design power calculations, pumping head calculations and tower performance curves.	Thermal calculations are a part of engineering documents that are submitted for approval after award of contract. We request that this may not be asked during bidding stage. Please confirm your acceptance.	Bidder to follow specification.
11	Tech Spec 1	29 of 223	4.07.00	For counter flow towers sufficient headroom (minimum 1.8M) shall be provided between the water distribution system and drift eliminator for inspection and maintenance.	As a standard practise in counter flow cooling towers, there is no gap between water distribution system and drift eliminator. The drift eliminator is placed over the beams to which the water distribution pipes are tied. For inspection and maintenance, the drift eliminator panels are removed to gain access to water distribution system. Please confirm your acceptance.	Bidder to follow specification.
12	Tech Spec 1	30 of 223	----	HOT WATER PIPING, VALVES AND ACCESSORIES After branch header isolation valves, the hot water pipe running along the air inlet side of CT shall be underground with suitable wrapping & coating.	This clause specifies that underground hot water pipe running along the air inlet side shall be wrapped and coated. This is in contradiction to clause no. 22 on page 11 of 223 which specifies that buried CW pipe in bidder's scope shall be concrete encased. Please clarify what is to be considered.	Please note that buried CW pipe in bidder's scope shall be concrete encased.
13	Tech Spec 1	33 of 223	5.01.00	Any special equipment tools and tackles required for the successful completion of the Performance & Guarantee Test shall be included by the bidder in his scope	All equipment tools, tackles and instruments bought to site for conducting performance and guarantee test shall be taken back by contractor. Please confirm your acceptance.	Noted. However, same shall be subject to NTPC approval during detailed engineering.
14	Tech Spec 1	74 of 223	Annexure III	Compliance drawing	The layout drawing shows effluent treatment plant in close vicinity of cooling tower. We request you to provide the height of tallest structure of ETP.	Please note that tallest structure in ETP area shall be less than 10 meter from FGL. Further detailing of various facilities and layout shall be provided after ordering of package
15	Tech Spec 2	3 of 339	7	Various plant facilities are envisaged around IDCT area which may or may not have interface with IDCT system. Bidder is required to establish that the conceptualised IDCT is in sync with these facilities. These facilities include but not limited to storm water drainage system, sewerage discharge, effluent discharge, foundations of nearby structures etc. Bidder drawings shall be prepared so as the other facilities are not affected.	The details of other facilities are not provided in the tender document. During bidding stage, it is not possible to establish that IDCT will not foul with the other facilities. BHEL needs to check and establish the same during execution stage.	Refer attached plot plan up to 10m all around IDCT there is no structure therefore there is no issue of fouling with near by structure.Bidder to review with attached plot plan.
16	Tech Spec 2	7 of 339	10.4	Internal surface of all water retaining structures shall be plastered in line with requirement mentioned in customer specification.	All surfaces of water retaining structures in a cooling tower are of RCC M30 grade. Hence, plastering will not be requried. Please confirm your acceptance.	Follow tender specification.
17	Tech Spec 2	21 of 339	4.03.01	Complete levelling of entire plant area as shown in drawing Titled ‘Site Levelling Plan’ shall be done by the Bidder	We understand that the site will be handed over to the successful bidder at FGL of RL 282.0 m. Please confirm that our understanding is correct.	Bidder understanding is correct.However at site only microlevelling is required because the natural ground level is only with +/- 500mm undulation.Therefor Bidder may proceed without micro levelling and grading.
18	Tech Spec 2	60 of 339	5.17.00.01 (l)	RCC peripheral drain of minimum cross sectional dimensions 300mm X 300mm to dispose storm water shall be provided around area paving and shall be connected to nearest Owner’s storm water drain.	Please provide the distance of nearest storm water drain from the cooling tower location.	Drain drawing is attached for better under standing of Bidder.
19	Tech Spec 2	60 of 339	5.17.00.01 (l)	RCC paving all around cooling towers shall be connected to the existing road so as to provide approach to both cooling towers and switchgear & control room building as indicated in tender drawing.	Please provide the distance of existing road from the cooling tower location.	Latest road drawing attached.

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)
(Formerly National Thermal Power Corporation Ltd.)
(केंद्रीय कार्यालय नोएडा)
Corporate Center NOIDA

Reference : CC-ENGG-8003-001-301-POC-C-107 **Date :** 18/01/2025

From : ALKA UPADHYAY
DY. GENERAL MANAGER

To : BHARAT HEAVY ELECTRICALS LTD
NEW DELHI
110049
IN

Cc : pmgvijay@bhel.in
ksbura@bhel.in

Subject : EPC Package, Sipat-Stage-III

Please find enclosed following drawings/ documents for necessary action at your end.

Vendor Drg. No.	:	PE-DG-520-603-C003
Orgn. Drg. No.	:	8003-001-301-POC-C-107
Revision No.	:	01
Drg. Title	:	PLANT ROADS LAYOUT
App. Category	:	CAT-II
Release Date	:	18/01/2025

Scan to verfiy

Comments : Comments marked on the drawing.

CERTIFICATE BY PC(EIL) - PROOF CHECKING CONSULTANT

This is to certify that

1.The documents have been reviewed in line with the guidelines of IS18299:2023.

2.The completeness and correctness of the structural design Documents and drawings have been reviewed.

APPROVAL CATEGORY ASSIGNED: CAT-II

DRG No: 8003-001-301-POC-C-107

DRG Title: PLANT ROADS LAYOUT

Revision No 01

Date : 17/01/2025

Signature of PC(EIL)

Team Leader

Name : GYASUDDIN

Name of Organisation: EIL

1x800 MW NTPC SIPAT STPP, STAGE-III		
COMPLIANCE RESOLUTION SHEET		
Drg./Doc. No.	NTPC Drg No. 8003-001-301-POC-C-107	
Drg./Doc. Title.	PLANT ROADS LAYOUT	
S.NO.	**NTPC COMMENTS**	**BHEL REPLY**
1	Connecting road to be provided & also approach road from main plant area to ETP area to be provided	Noted & incorporated as per Plot Plan.
2	Approach road for IDCT MCC	Noted & incorporated as per Plot Plan.
3	Layout of this to be finalised considering existing site conditions and inline with topographical (including TP-26 & conveyor 33).	Noted & incorporated as per Plot Plan.
4	Approach road to IDCT to be demarcated and peripheral road along IDCT to be demarcated.	Noted & incorporated as per Plot Plan.
5	Road along Ash Slurry pipe line & Ash Water re-circulation pipe line to be provided and approach to outer road from main plant area.	Noted. Not required functionally and as per Plot Plan.
6	Approach road for AHP MCC	Noted & incorporated as per Plot Plan.
7	Turning along with slope change and scope change, kindly check and review	Road is provided with camber which will take care for slope and for turning of slow moving vehicle .
8	Culvert Required for 132kV Cable trench.	Noted.The same shall be represented in corresponding drain drawings 8003-001-301-POC-C-111 & C0157.
9	Culvert crossing CW pipe to be demarcated.	Noted.The same shall be represented in corresponding drain drawings 8003-001-301-POC-C-111 & C0157.
10	Existing Road to be demarcated.	Noted & incorporated as per Plot Plan.
11	Approach Road to TP29 to be demarcated.	Noted & incorporated as per Plot Plan.
12	Connecting road to be Provided.	Noted & incorporated as per Plot Plan.
13	PROVIDE COORDINATES AT END OF ROAD	Noted & incorporated.
14	PROVIDE ROAD AS PER TENDER DRAWING	Noted & incorporated as per tender drawing and Plot Plan.
15	Existing Road to be demarcated.	Noted & incorporated as per Plot Plan.
16	Approach road for CHP MCC	Noted & incorporated as per Plot Plan.
17	Approach road for CHP Bunker MCC	Noted & incorporated as per Plot Plan.
18	Entry and exit road for Silo to be demarcated	Noted & incorporated as per Plot Plan.
19	Approach road for AHP Silo MCC	Noted & incorporated as per Plot Plan.
20	Existing Roads / Roads in NTPC Scope may also be highlighted for better clarity	Noted & incorporated as per Plot Plan.
21	1. Provide the internal/approach road to various facilities.	Noted & incorporated as per Plot Plan.
22	2. Indicate the Road layout in Bio-mass area and switchyard area.	Noted & incorporated as per Plot Plan.
23	3. Comments on Plot plan regarding Road layout to be incorporated.	Noted & incorporated .
24	4. Comments on the Design of road and road cross section to be incorporated.	Noted & incorporated .
25	5. Indicate the details of Hume pipe along with elevation for crossing the road.	Typical Hume pipes are shown at interval of 30m from junction and section is shown in road section drawing 8003-001-301-PVC-C-0037.
26	6. Width of the road to be provided as per Technical specifications.	Noted & in line with specifications .
27	7. Turning radius adequate for 16 wheel truck shall be provided at all relevant points including approach (entry/exit) and access road for Truck movement at loading/unloading/weighment facilities of Limestone, Gypsum, Ash, Biomass for efficient and safe movement of truck.	Noted and R24 incorporated in road section drawing 8003-001-301-PVC-C-0037.
28	ENTRY OF ROAD FROM UNDERPASS TO BE AVOIDED AND ENTRY OF ROAD FROM OTHER SIDE OF ROAD TO BE PROVIDED	Noted & incorporated as per Plot Plan.
29	Dry stone pitching to be shown in typical detail of area cutting/filling	There is no area in cutting/filling as the area is mostly flat and micro grading is provided.
30	Approach road for AHP/CHP /LHP MCC	Noted & incorporated as per Plot Plan.
31	Typical details of turning radius to be shown in drawing	Incorporated in road section drawing 8003-001-301-PVC-C-0037.
32	Comment marked Plot Plan also to be incorporated in this drawing	Noted & incorporated.
33	Provide the NTPC drg. no.	Noted & incorporated.

Submit relevant drawing

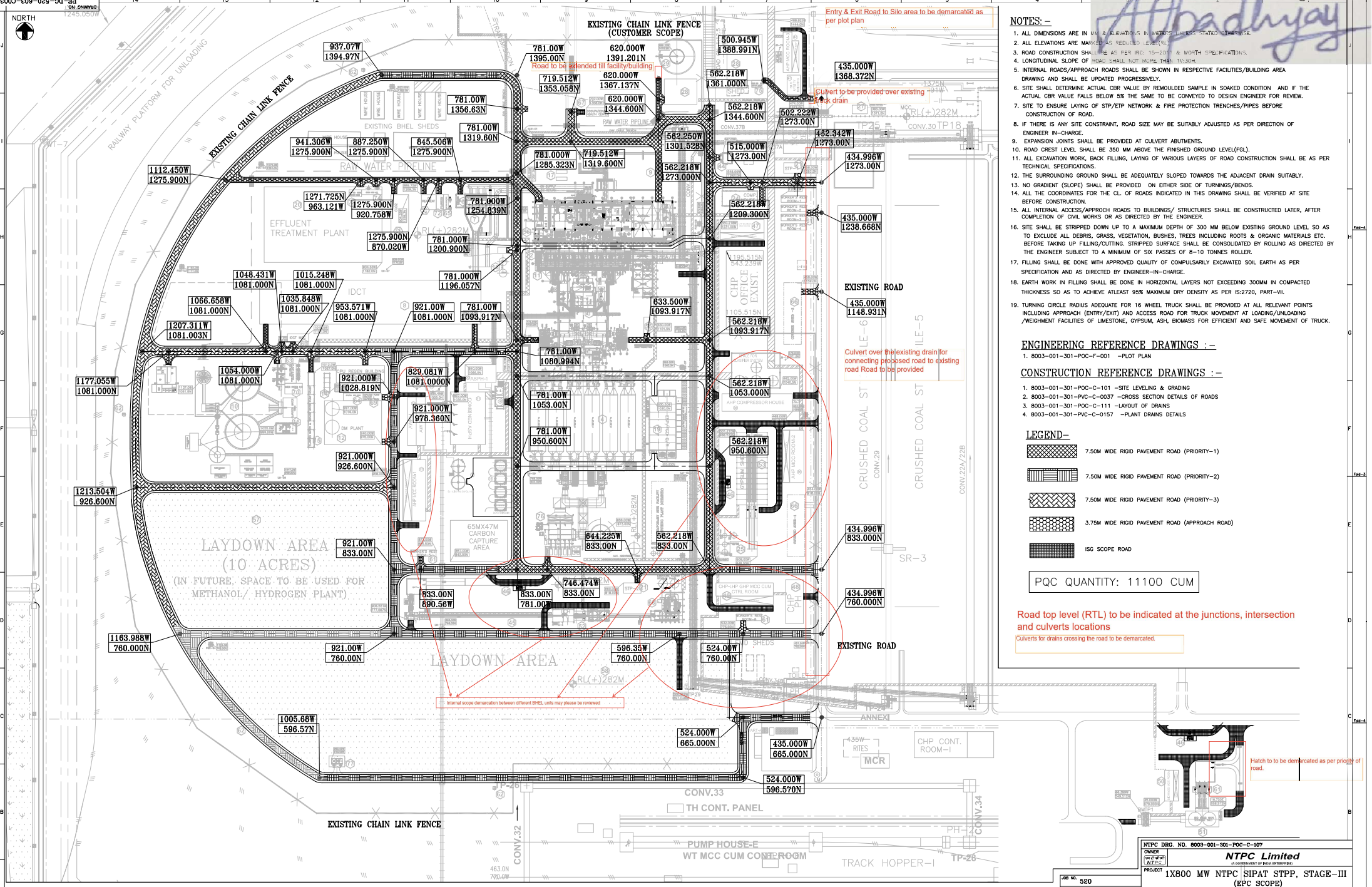
Entry & Exit Road to Silo area to be demarcated as per plot plan

S.NO.	NTPC COMMENTS	BHEL REPLY
34	100m wide green belt to be ensured	Green belt/landscaping shall be provided as per mechanical layout drawing (Plot Plan) and in line with specifications.
35	Indicate drawing no. for location , elevation and nos. of humes pipes along with size that are to be laid before road construction.	Typical Hume pipes are shown at interval of 30m from junction ,however the detailed locations of hume pipe shall be shown in drain drawing 8003-001-301-POC-C-111 & C0157 and shall be reffered/shown in respective paving drawings of Boiler/ESP /Chimney area 8003-001-315-PVC-C-0151/C0018.Additional pipe culverts (if required) as per Electrical cabling and mechanical piping shall be provided accordingly.
36	Submit this drawing.	This levelling and grading drawing 8003-001-301-POC-C-101 submitted and approved in CAT-2.
37	Approach road for DM PT MCC	Noted & incorporated as per Plot Plan.

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

DRAWING NO. PE-DG-520-603-C003



NOTES: –

1. ALL DIMENSIONS ARE IN M. & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE MARKED AS REDUCED LEVEL(RL).
3. ROAD CONSTRUCTION SHALL BE AS PER IRC: 15–2017 & MORTH SPECIFICATIONS.
4. LONGITUDINAL SLOPE OF ROAD SHALL NOT MORE THAN 1V:30H.
5. INTERNAL ROADS/APPROACH ROADS SHALL BE SHOWN IN RESPECTIVE FACILITIES/BUILDING AREA DRAWING AND SHALL BE UPDATED PROGRESSIVELY.
6. SITE SHALL DETERMINE ACTUAL CBR VALUE BY REMOULDED SAMPLE IN SOAKED CONDITION AND IF THE ACTUAL CBR VALUE FALLS BELOW 5% THE SAME TO BE CONVEYED TO DESIGN ENGINEER FOR REVIEW.
7. SITE TO ENSURE LAYING OF STP/ETP NETWORK & FIRE PROTECTION TRENCHES/PIPES BEFORE CONSTRUCTION OF ROAD.
8. IF THERE IS ANY SITE CONSTRAINT, ROAD SIZE MAY BE SUITABLY ADJUSTED AS PER DIRECTION OF ENGINEER IN–CHARGE.
9. EXPANSION JOINTS SHALL BE PROVIDED AT CULVERT ABUTMENTS.
10. ROAD CREST LEVEL SHALL BE 350 MM ABOVE THE FINISHED GROUND LEVEL(FGL).
11. ALL EXCAVATION WORK, BACK FILLING, LAYING OF VARIOUS LAYERS OF ROAD CONSTRUCTION SHALL BE AS PER TECHNICAL SPECIFICATIONS.
12. THE SURROUNDING GROUND SHALL BE ADEQUATELY SLOPED TOWARDS THE ADJACENT DRAIN SUITABLY.
13. NO GRADIENT (SLOPE) SHALL BE PROVIDED ON EITHER SIDE OF TURNINGS/BENDS.
14. ALL THE COORDINATES FOR THE CL. OF ROADS INDICATED IN THIS DRAWING SHALL BE VERIFIED AT SITE BEFORE CONSTRUCTION.
15. ALL INTERNAL ACCESS/APPROCH ROADS TO BUILDINGS/ STRUCTURES SHALL BE CONSTRUCTED LATER, AFTER COMPLETION OF CIVIL WORKS OR AS DIRECTED BY THE ENGINEER.
16. SITE SHALL BE STRIPPED DOWN UP TO A MAXIMUM DEPTH OF 300 MM BELOW EXISTING GROUND LEVEL SO AS TO EXCLUDE ALL DEBRIS, GRASS, VEGETATION, BUSHES, TREES INCLUDING ROOTS & ORGANIC MATERIALS ETC. BEFORE TAKING UP FILLING/CUTTING. STRIPPED SURFACE SHALL BE CONSOLIDATED BY ROLLING AS DIRECTED BY THE ENGINEER SUBJECT TO A MINIMUM OF SIX PASSES OF 8–10 TONNES ROLLER.
17. FILLING SHALL BE DONE WITH APPROVED QUALITY OF COMPULSARILY EXCAVATED SOIL EARTH AS PER SPECIFICATION AND AS DIRECTED BY ENGINEER–IN–CHARGE.
18. EARTH WORK IN FILLING SHALL BE DONE IN HORIZONTAL LAYERS NOT EXCEEDING 300MM IN COMPACTED THICKNESS SO AS TO ACHIEVE ATLEAST 95% MAXIMUM DRY DENSITY AS PER IS:2720, PART–VII.
19. TURNING CIRCLE RADIUS ADEQUATE FOR 16 WHEEL TRUCK SHALL BE PROVIDED AT ALL RELEVANT POINTS INCLUDING APPROACH (ENTRY/EXIT) AND ACCESS ROAD FOR TRUCK MOVEMENT AT LOADING/UNLOADING /WEIGHMENT FACILITIES OF LIMESTONE, GYPSUM, ASH, BIOMASS FOR EFFICIENT AND SAFE MOVEMENT OF TRUCK.

ENGINEERING REFERENCE DRAWINGS :–

1. 8003–001–301–POC–F–001 –PLOT PLAN

CONSTRUCTION REFERENCE DRAWINGS :–

1. 8003–001–301–POC–C–101 –SITE LEVELING & GRADING
2. 8003–001–301–PVC–C–0037 –CROSS SECTION DETAILS OF ROADS
3. 8003–001–301–POC–C–111 –LAYOUT OF DRAINS
4. 8003–001–301–PVC–C–0157 –PLANT DRAINS DETAILS

LEGEND–

- 7.50M WIDE RIGID PAVEMENT ROAD (PRIORITY–1)
- 7.50M WIDE RIGID PAVEMENT ROAD (PRIORITY–2)
- 7.50M WIDE RIGID PAVEMENT ROAD (PRIORITY–3)
- 3.75M WIDE RIGID PAVEMENT ROAD (APPROACH ROAD)
- ISG SCOPE ROAD

PQC QUANTITY: 11100 CUM

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD
										01	14.01.25	SN	AK/SM/ABHAY K.	

1. DRG. REVISED INLINE WITH NTPC COMMENTS RCVD. LETTER NO. CC–ENGG–8003–001–301–POC–C–107 RCVD. DTD. 12/11/2024.

JOB NO. 520
STATUS CONTRACT
DISTRIBUTION

NTPC DRG. NO. 8003–001–301–POC–C–107

OWNER (ON CT BTxT) NTPC

NTPC Limited
A GOVERNMENT OF INDIA ENTERPRISE

PROJECT 1X800 MW NTPC SIPAT STPP, STAGE–III (EPC SCOPE)

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA (U.P.)

DEPT CODE		NAME	SIGN	DATE
C	DRN	SN	Sd/–	06.11.2024
	DESN	AK	Sd/–	06.11.2024
	CHD	SM	Sd/–	06.11.2024
	APPD	ABHAY K.	Sd/–	06.11.2024

TITLE LAYOUT OF ROADS

MPL	ELEC	C&I	MSE	MAX	DEPT.	SCALE –
					SIGN	
					DATE	

DRAWING NO. PE–DG–520–603–C003

SHEET 1 OF 1 REV. 00

FORMAT SIZE A0

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)
(Formerly National Thermal Power Corporation Ltd.)
(केंद्रीय कार्यालय नोएडा)
Corporate Center NOIDA

Reference : CC-ENGG-8003-001-301-POC-C-111 **Date :** 19/11/2024

From : ALKA UPADHYAY
DY. GENERAL MANAGER

To : BHARAT HEAVY ELECTRICALS LTD
NEW DELHI
110049
IN

Cc : pmgvijay@bhel.in
dipakbag@bhel.in

Subject : EPC Package, Sipat-Stage-III

Please find enclosed following drawings/ documents for necessary action at your end.

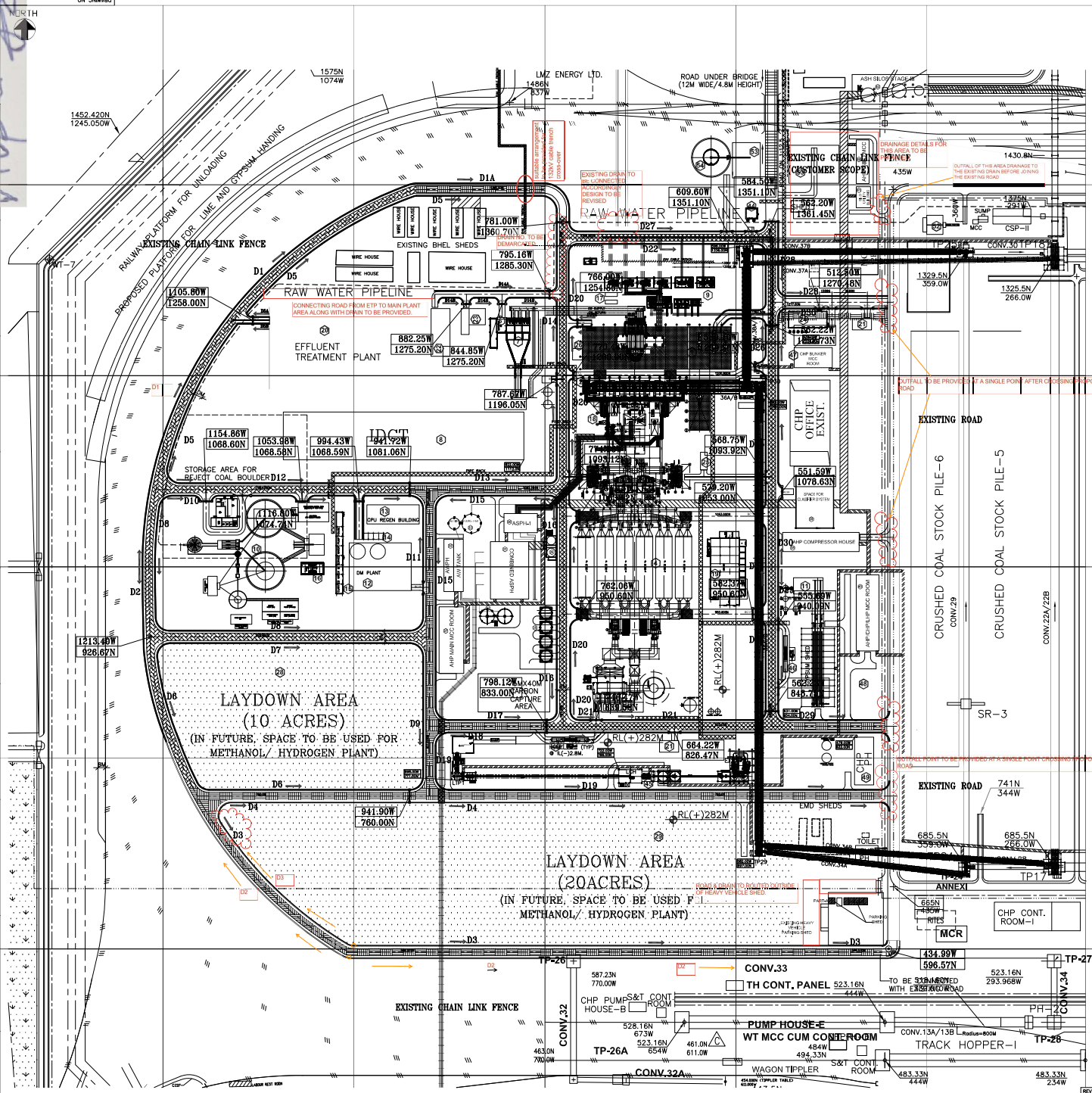
Vendor Drg. No.	:	PE-DG-520-603-C005
Orgn. Drg. No.	:	8003-001-301-POC-C-111
Revision No.	:	00
Drg. Title	:	PLANT DRAIN LAYOUT
App. Category	:	CAT-II
Release Date	:	19/11/2024

Scan to verfiy

Comments :

1. COMMENTS ON DESIGN OF DRAIN, PLOT PLAN & LAYOUT OF ROAD MAY PLEASE BE INCORPORATED.
2. CONNECTION DETAILS OF PROPOSED DRAIN TO EXISTING DRAIN TO BE PROVIDED.
3. DRAINAGE ARRANGEMENT FOR LAYDOWN AREA NEAR SWITCHYARD TO BE PROVIDED.
4. Culvert to be mandatorily provided at crossings wherever vehicular /material movement is envisaged.
5. STARTING & END POINT OF EACH DRAIN TO BE DEMARCATED ON DRAWING.
6. CULVERT FOR CROSSING THE ROAD BY DRAIN TO BE DEMARCATED.
7. DESIGN OF D1A, D14A & D14B TO BE PROVIDED.
8. DRAIN NO. D18A, D12B & D30A ARE NOT MARKED IN DRAIN LAYOUT & REQUESTED TO REVIEW THE SAME.
9. ANY CABLE CROSSINGS THROUGH DRAIN ARE TO BE DEMARCATED.
10. COMMENTS AS MARKED.

FIRST ANGLE PROJECTION — ALL DIMENSIONS ARE IN MM



1. COMMENTS ON DESIGN OF DRAIN, PLOT PLAN & LAYOUT OF ROAD MAY PLEASE BE INCORPORATED.
2. CONNECTION DETAILS OF PROPOSED DRAIN TO EXISTING DRAIN TO BE PROVIDED.
3. DRAINAGE ARRANGEMENT FOR LAYDOWN AREA NEAR SWITCHYARD TO BE PROVIDED.
4. Culvert to be mandatorily provided at crossings wherever vehicular /material movement is envisaged.
5. STARTING & END POINT OF EACH DRAIN TO BE DEMARCATED ON DRAWING.
6. CULVERT FOR CROSSING THE ROAD BY DRAIN TO BE DEMARCATED.
7. DESIGN OF D1A, D1AR & D1AB TO BE PROVIDED.
8. DRAIN NO. D18A, D12B & D30A ARE NOT MARKED IN DRAIN LAYOUT & REQUESTED TO REVIEW THE SAME.
9. ANY CABLE CROSSINGS THROUGH DRAIN ARE TO BE DEMARCATED.

BHEL to confirm the following:
1. Suitable drain network has been provided and shall be kept functional during full construction phase to dispose off accumulated water during rains and prevent accumulation of water and flood in the plant area , preassembly area, storage area etc.
2. Suitable arrangements have been made so that that effluents (plant water) and storm water do not get mixed.
3. Clear water shall be routed to CW channel and contaminated water diverted to Area Pit (s) / Sump(s).
4. Culverts/local humps or bridges, for routing ash pipes at crossing for nallah /water body crossing /roads/rail lines etc. have been provided.

NOTES:

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. EL (±)0.00 CORRESPOND TO RL(+)282.50M ABOVE MSL.
3. RAINFALL INTENSITY CONSIDERED IN DESIGN IS 75 MM/Hr AS PER SPECIFICATION
4. CEMENT SHALL BE AS PER SPECIFICATION.
5. REINFORCEMENT STEEL SHALL BE OF GRADE Fe 500/500D TMT BARS CONFORMING TO IS 1786.
6. AT BENDS DRAIN SHALL BE LAID WITH THE SAME RADIUS AS THAT OF ASSOCIATED ROAD.
7. INTERNAL DRAINS/APPROACH DRAINS SHALL BE SHOWN IN RESPECTIVE FACILITIES/BUILDING AREA DRAWING AND SHALL BE UPDATED PROGRESSIVELY.
8. LENGTH/ALIGNMENT OF THE SURFACE DRAIN & CULVERTS INDICATED ARE APPROXIMATE AND MAY BE SLIGHTLY ADJUSTED TO SUITE SITE CONDITION AND APPROVED BY ENGINEER IN-CHARGE.
9. FOR STRUCTURAL DETAILS OF DRAIN, CULVERTS REF. DRAWING NO PE-DG-520-603-C006 BOX CULVERT SHALL BE PROVIDED FOR ALL ACCESS ROADS/APPROACH ROAD TO FACILITIES.
10. LOCATION OF BOX CULVERT CAN BE SHIFTED SUITABLY TO SUITE SITE CONDITION AND APPROVED BY ENGINEER-IN-CHARGE
11. WIDTH OF THE BOX CULVERT SHALL BE AS PER IMMEDIATE CONNECTING DRAIN ON DOWNSTREAM OF BOX CULVERT.
12. ALL THE PERIPHERAL DRAINS OF BUILDINGS/FACILIITES TO BE SUITABLY CONNECTED TO THE NEAREST PLANT DRAIN AT SITE.
13. NO EFFLUENT DRAINS SHALL BE CONNECTED WITH THE STORM WATER DRAINS.
14. BOX CULVERTS (IN ADDITION TO THOSE INDICATED IN THIS DRAWING) WHEREVER REQUIRED FOR ACCESS/APPROACH TO BUILDINGS/FACILITES/STRUCTURES ACROSS DRAINS SHALL BE SUITABLY PROVIDED AT SITE.
15. DRAIN ON BOTH SIDES OF INDIVIDUAL APPROACH ROADS OF VARIOUS BUILDINGS/STRUCTURES/FACILITIES TO THE MAIN RAOD SHALL BE SHOWN IN RESPECTIVE DRAWINGS.

REFERENCE DRAWINGS: –

DRAWING MAY PLEASE BE SUBMITTED

1. 8003-001-301-POC-C-101 ------SITE LEVELLING WORKS – PLAN & SECTIONS
2. 8003-001-301-POC-C-107 --------LAYOUT OF ROADS
3. 8003-001-301-PVC-C-0037 --------CROSS SECTION DETAILS OF ROADS
4. 8003-001-301-PVC-C-0157 -------PLANT DRAINS DETAILS

THIS DRAWING WHEN SIGNED IS RELEASED FOR
☐ CONSTRUCTION
☐ PLANNING/INFORMATION
☐ CONSTRUCTION
SOMNATH MISHRA
08.11.2024

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD

NTPC DRG. NO. 8003-001-301-POC-C-111

OWNER: (भारत सरकार का उपक्रम) NTPC

NTPC Limited
AN ENTERPRISE OF INDIA (GOVERNMENT OF INDIA ENTERPRISE)

PROJECT: 1X800 MW NTPC SIPAT STPP, STAGE-III (EPC SCOPE)

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA (U.P.)

DEPT	NAME	SIGN	DATE
DRN	RK	Sd/–	06.11.2024
DESN	AP	Sd/–	06.11.2024
CHD	SM	Sd/–	06.11.2024
APPD	ABHAY K.	Sd/–	08.11.2024

JOB NO. 520
STATUS CONTRACT
DISTRIBUTION

TITLE: LAYOUT OF DRAINS

MPL	ELEC	C&I	MSE	MAX	DEPT.	SCALE –
					SIGN	
					DATE	

DRAWING NO. PE-DG-520-603-C005

SHEET 1 OF 1 REV.

FORMAT SIZE A0

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)
(Formerly National Thermal Power Corporation Ltd.)
(केंद्रीय कार्यालय नोएडा)
Corporate Center NOIDA

Reference : CC-ENGG-8003-001-301-POC-F-001 **Date :** 06/01/2025

From : ALKA UPADHYAY
DY. GENERAL MANAGER

To : BHARAT HEAVY ELECTRICALS LTD
NEW DELHI
110049
IN

Cc : pmgvijay@bhel.in
ksbura@bhel.in

Subject : EPC Package, Sipat-Stage-III

Please find enclosed following drawings/ documents for necessary action at your end.

Vendor Drg. No.	:	PE-DG-520-100-M001
Orgn. Drg. No.	:	8003-001-301-POC-F-001
Revision No.	:	01
Drg. Title	:	PLOT PLAN (GLP)
App. Category	:	CAT-II
Release Date	:	06/01/2025

Scan to verfiy

Comments :

1) Comments are marked on the drawing.
2) Based on the pointwise replies given by BHEL, we have no major comments. However, BHEL to note/confirm the following:
i. In case of any contradiction in the Plot Plan and the stipulations of Technical Specifications (w.r.t. Quantities/Specification of Equipments/Systems), the stipulations as mentioned in Technical Specification shall prevail and any changes required in layouts to meet the system design/specification requirement, same shall be taken care in the plot plan by BHEL.
ii. Dimensions of equipments are tentative and shall be updated based on final layout drawings of respective buildings/equipments.
iii. NTPC safety policy and various safety requirement has already been indicated in the site regulation and safety section of GCC. This document shall be read in conjunction with site regulation and safety section of GCC. In case of any contradiction, the stringent of the two requirements (in the opinion of NTPC) shall prevail. iv. Approval of this document does not relieve M/s BHEL from any of its obligations, duties or responsibilities under the Contract.
3) Please mark the space for grounding and earthing of C&I systems.

Engineering Division
ISO 9001:2008 Certified

अभियांत्रिकी कार्यालय परिसर, प्लाट नं.- ए 8ए, सेक्टर-24, पोस्ट बाक्स नं.- 13, नोएडा (उ प्र) पिन–201 307
टेलिफोन नं.- 0120-2410333, 2410116 फैक्स-0120-2410136, 2410137
पंजीकृत कार्यालय: एनटीपीसी भवन, स्कोप काम्पलेक्स, 7 इन्स्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110 003
टेलिफोन नं.- 011-24361018 फैक्स-011-24361018, वेबसाइट: www.ntpc.co.in
ENGINEERING OFFICE COMPLEX, Plot No: A-8A, Sector-24, Post Box No: 13, Noida (UP), Pin-201 307
Telephone No: 0120-2410333, 2410116 Fax-0120-2410136, 2410137
Registered Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110 003
Telephone No: 011 24360100 Fax 011 24361018, Website: www.ntpc.co.in

CERTIFICATE BY PC(EIL) - PROOF CHECKING CONSULTANT

This is to certify that

1.The documents have been reviewed in line with the guidelines of IS18299:2023.
2.The completeness and correctness of the structural design Documents and drawings have been reviev
APPROVAL CATEGORY ASSIGNED: CAT-II

DRG No: 8003-001-301-POC-F-001

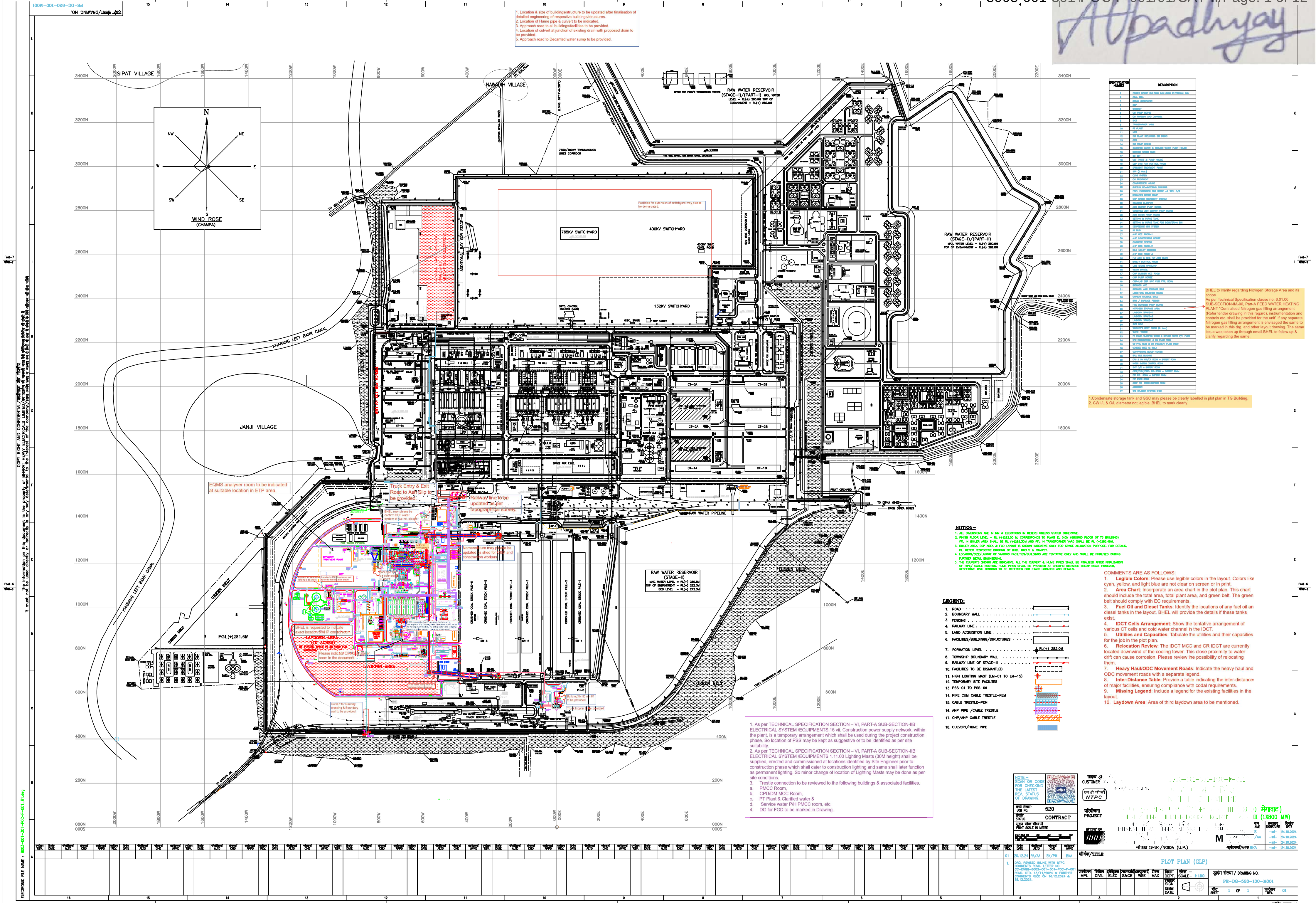
DRG Title: PLOT PLAN (GLP)

Revision No 01

Date : 06/01/2025

Signature of PC(EIL)

Team Leader
Name : GYASUDDIN
Name of Organisation: EIL


फर्स्ट एंगल प्रोजेक्शन/FIRST ANGLE PROJECTION
सभी माप मि मी में है/ALL DIMENSIONS ARE IN MM
1. Location & size of buildings/structure to be updated after finalisation of detailed engineering of respective buildings/structures.
2. Location of Hume pipe & culvert to be indicated.
3. Approach road to all buildings/facilities to be provided.
4. Location of culvert at junction of existing drain with proposed drain to be provided.
5. Approach road to Decanted water sump to be provided.
SIPAT VILLAGE
NAWADIH VILLAGE
JANJI VILLAGE
WIND ROSE
(CHAMPA)
RAW WATER RESERVOIR
(STAGE–I)/(PART–II)
RAW WATER RESERVOIR
(STAGE–I)/(PART–I)
RAW WATER RESERVOIR
(STAGE–II)
765KV SWITCHYARD
400KV SWITCHYARD
132KV SWITCHYARD
Facilities for extension of switchyard may please be demarcated.
ADDITIONAL BAY FOR STAGE–III
KHARANG LEFT BANK CANAL
TO BILASPUR
TO BALODA
TO GATORA JN.
TO DIPKA MINES
FROM DIPKA MINES
RAW WATER PIPELINE
GREEN BELT
FRUIT ORCHARD
TRENCH FOR 132 KV LINE
CRUSHED COAL STOCK PILE–1
CRUSHED COAL STOCK PILE–2
CRUSHED COAL STOCK PILE–3
CRUSHED COAL STOCK PILE–4
CRUSHED COAL STOCK PILE–5
CRUSHED COAL STOCK PILE–6
LAYDOWN AREA
LAYDOWN AREA (10 ACRES)
FGL(+)281.5M
EQMS analyser room to be indicated at suitable location in ETP area.
Truck Entry & Exit Road to Ash Silo to be provided.
Railway line to be updated as per topographical survey.
Nomenclature may please be updated as shed for C&M and construction workers
BHEL is requested to indicate exact location of AHP control room.
Please indicate CBMS room in the document.
Building for ID no. 61 to be provided.
Truck tripper to be provided
Culvert for Railway crossing & Boundary wall to be provided
BHEL to clarify regarding Nitrogen Storage Area and its scope
As per Technical Specification clause no. 6.01.00 SUB-SECTION-IIA-06, Part-A FEED WATER HEATING PLANT "Centralised Nitrogen gas filling arrangement (Refer tender drawing in this regard), instrumentation and controls etc. shall be provided for the unit" If any separate Nitrogen gas filling arrangement is envisaged the same to be marked in this drg. and other layout drawing. The same issue was taken up through email.BHEL to follow up & clarify regarding the same.
1.Condensate storage tank and GSC may please be clearly labelled in plot plan in TG Building.
2. CW I/L & O/L diameter not legible. BHEL to mark clearly
NOTES:–
1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. FINISH FLOOR LEVEL = RL (+)282.50 M, CORRESPONDS TO PLANT EL 0.0M (GROUND FLOOR OF TG BUILDING) FFL IN BOILER AREA SHALL BE RL (+)282.30M AND FFL IN TRANSFORMER YARD SHALL BE RL (+)282.40M.
3. BOILER AREA, ESP AREA & FGD LAYOUT IS SHOWN INDICATIVE ONLY FOR SPACE ALLOCATION PURPOSE. FOR DETAILS, PL. REFER RESPECTIVE DRAWING OF BHEL TRICHY & RANIPET.
4. LOCATION/SIZE/LAYOUT OF VARIOUS FACILITIES/BUILDINGS ARE TENTATIVE ONLY AND SHALL BE FINALISED DURING FURTHER DETAIL ENGINEERING.
5. THE CULVERTS SHOWN ARE INDICATIVE. ALL THE CULVERT & HUME PIPES SHALL BE FINALIZED AFTER FINALIZATION OF PIPE/ CABLE ROUTING. HUME PIPES SHALL BE PROVIDED AT SPECIFIC DISTANCE BELOW ROAD. HOWEVER, RESPECTIVE CIVIL DRAWING TO BE REFERRED FOR EXACT LOCATION AND DETAILS.
LEGEND:
1. ROAD
2. BOUNDARY WALL
3. FENCING
4. RAILWAY LINE
5. LAND ACQUISITION LINE
6. FACILITIES/BUILDINGS/STRUCTURES
7. FORMATION LEVEL
8. TOWNSHIP BOUNDARY WALL
9. RAILWAY LINE OF STAGE–III
10. FACILITIES TO BE DISMANTLED
11. HIGH LIGHTING MAST (LM–01 TO LM–15)
12. TEMPORARY SITE FACILITES
13. PSS–01 TO PSS–09
14. PIPE CUM CABLE TRESTLE–PEM
15. CABLE TRESTLE–PEM
16. AHP PIPE /CABLE TRESTLE
17. CHP/AHP CABLE TRESTLE
18. CULVERT/HUME PIPE
RL(+) 282.0M
COMMENTS ARE AS FOLLOWS:
1. Legible Colors: Please use legible colors in the layout. Colors like cyan, yellow, and light blue are not clear on screen or in print.
2. Area Chart: Incorporate an area chart in the plot plan. This chart should include the total area, total plant area, and green belt. The green belt should comply with EC requirements.
3. Fuel Oil and Diesel Tanks: Identify the locations of any fuel oil an diesel tanks in the layout. BHEL will provide the details if these tanks exist.
4. IDCT Cells Arrangement: Show the tentative arrangement of various CT cells and cold water channel in the IDCT.
5. Utilities and Capacities: Tabulate the utilities and their capacities for the job in the plot plan.
6. Relocation Review: The IDCT MCC and CR IDCT are currently located downwind of the cooling tower. This close proximity to water drift can cause corrosion. Please review the possibility of relocating them.
7. Heavy Haul/ODC Movement Roads: Indicate the heavy haul and ODC movement roads with a separate legend.
8. Inter-Distance Table: Provide a table indicating the inter-distance of major facilities, ensuring compliance with codal requirements.
9. Missing Legend: Include a legend for the existing facilities in the layout.
10. Laydown Area: Area of third laydown area to be mentioned.
1. As per TECHNICAL SPECIFICATION SECTION – VI, PART-A SUB-SECTION-IIB ELECTRICAL SYSTEM /EQUIPMENTS.15 vii. Construction power supply network, within the plant, is a temporary arrangement which shall be used during the project construction phase. So location of PSS may be kept as suggestive or to be identified as per site suitability.
2. As per TECHNICAL SPECIFICATION SECTION – VI, PART-A SUB-SECTION-IIB ELECTRICAL SYSTEM /EQUIPMENTS 1.11.00 Lighting Masts (30M height) shall be supplied, erected and commissioned at locations identified by Site Engineer prior to construction phase which shall cater to construction lighting and same shall later function as permanent lighting. So minor change of location of Lighting Masts may be done as per site conditions.
3. Trestle connection to be reviewed to the following buildings & associated facilities.
a. PMCC Room,
b. CPU/DM MCC Room,
c. PT Plant & Clarified water &
d. Service water P/H PMCC room, etc.
4. DG for FGD to be marked in Drawing.
NOTE:– SCAN QR CODE FOR CHECKING THE LATEST REV. STATUS OF DRAWING.
ग्राहक CUSTOMER
एन टी पी सी NTPC
परियोजना PROJECT
मेगावाट (1X800 MW)
नोएडा (उ.प्र.)/NOIDA (U.P.)
कार्य संख्या JOB NO. 520
स्थिति STATUS CONTRACT
शीर्षक/TITLE
PLOT PLAN (GLP)
स्केल SCALE– 1:100
ड्राइंग संख्या / DRAWING NO.
PE–DG–520–100–M001
शीट SHEET 1 OF 1
पुनरीक्षण REV. 01
01 20.12.24 RA/AA SK/PM BKA
1. DRG. REVISED INLINE WITH NTPC COMMENTS RCVD. LETTER NO. CC-ENGG-8003-001-301-POC-F-001 RCVD. DTD. 13/11/2024 & FURTHER COMMENTS RECD ON 16.12.2024.
–sd– 24.10.2024
फार्मेट साइज AO FORMAT SIZE AO
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ELECTRONIC FILE NAME : 8003-001-301-POC-F-001_R1.dwg

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Project	1X800MW NTPC Sipat STG-III EPC Project				
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Reply Tracker

NTPC Reference/Date	BHEL Reference/Date	Remarks
CC-ENGG-8003-001-301-POC-F-001	BHEL reply dtd. 20.12.2024	

Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
1.	Location of O&M and construction workers to be indicated Change the name to O&M and construction workers. BHEL requested to ensure O&M and construction workers are permanent structure.	This is worker's rest room (06 Nos) as per specs and has been shown in plot plan.
2.	Various facilities of DM plant to be shown	The tentative space (not to exceed) for DM plant has been shown. The facilities of DM plant shall be updated upon finalization of internal layout.
3.	Road along clarified water & service water PH to be indicated.	The same has already been shown in plot plan.
4.	Area to be demarcated for CST Tank & PH	Noted.
5.	STP to be marked as per Technical specifications. As discuused, Location of STP's may please be review.	3 Nos STPs are shown inline with technical specification requirement.
6.	Rain water Harvesting scheme to be shown in plot plan Rain water Harvesting scheme to be shown in plot plan.	As per specification it is ground water recharge which seems not feasible. The engineering of scheme of rain water harvesting is in progress and shall be submitted in next revision.
7.	Facilities for ETP to be marked on Plot plan The facilities of ETP may please be updated upon finalization of internal layout.	The tentative space (not to exceed) for ETP has been shown. The facilities of ETP shall be updated upon finalization of internal layout.
8.	Approach road to ETP & IDCT to be shown	Noted and shown in plot plan.
9.	Laydown area near Switchyard to be shown	Already shown in plot plan.
10.	Ash slurry pipe line to be shifted by about 10m towards TP-26 as area was already allocated for existing ST-I & II.	Refer modified ash slurry pipe route.
11.	Existing road between heavy vehicle shed & EMD shed to be shown	Noted and shown.
12.	Facilities for CLO2 to be shown.	CLO2 building already shown in plot plan.
13.	ID no. 5 to be shifted.	Noted

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Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
14.	MCC room for FOPH extension to be marked. MCC room for FOPH extension to be marked after finalization of Electrical system design	PMCC location shown in Plot Plan. However, shown location is tentative & shall be finalized after finalization of Electrical system design.
15.	CHP/LHP MCC-2 ROOM TO BE DEMARCATED.	Nomenclature changed to CHP-LHP GHP MCC cum CONTROL ROOM (bldg. no. 49) relocated near CHP PH.
16.	Truck entry & exit road to be shifted as overlap with under construction facility of ASH to Sand unit. Ash to Sand unit is under construction & BHEL is requested to obtain from the topographical survey.	NTPC is requested to furnish all the details/drawings of the under-construction ash to sand unit for detailing of the layout in this area. Further details from the topographical survey of ash silo area shall be referred.
17.	Approach Road to IM Silo to be provided	Noted and shown in plot plan.
18.	MCC & Control Room for IDCT & Water system to be shown	Noted and indicated.
19.	02 no. Covered shed (70x20m) to be shown in plot plan	Noted and shown in plot plan.
20.	Approach road to all building to demarcated Approach road for all buildings to be demarcated.	Approach roads to various buildings have already been shown. For left out buildings same has also been updated in plot plan now.
21.	Location of Light mast to be indicated.	Noted
22.	Extension of switchyard to be shown in Plot Plan	765kV & 132kV Switch Yard Extension Overall layout (with Tower details) shown in the plot plan. Detailed layout shall be submitted under separate document.
23.	Railway line near proposed Silo area & other existing facilities to be marked as per proposed Topographical survey. Railway line near proposed Silo area & other existing facilities to be marked as per proposed Topographical survey	NTPC is requested to furnish the details/drawings of all the existing facilities in the ash silo area, railway tracks etc for detailing of the layout in this area. Further details from the topographical survey of ash silo area shall be referred.
24.	Occupational Health center to marked in Plot plan.	Noted and shown in plot plan.

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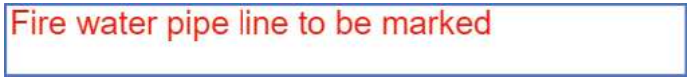
Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
25.	132 KV line to be demarcated in line with tender drawing.	Noted and indicated in plot plan.
26.	Fire water pipe line to be marked 	The fire water route is yet to be finalized. The same shall be included in plot plan after approval of the piping layout drawing.
27.	Mark the coordinate of each building	Coordinates of various buildings have already been shown. For left out buildings same has also been updated in plot plan now.
28.	Complete GLP must be modeled in 3D modelling software as pe rcl. No. 4.08 of Sub section-I of Section-V_, Part-A.	Noted and same shall be inline with technical specification.
29.	Indicate all road coordinates	Coordinates of various roads have already been shown. For left out buildings same has also been updated in plot plan now.
30.	Ensure clear height of 8.m for crossing over roads	Noted
31.	Rail line for transformer to be shifted from main road as this main approach road to ST-III area.	Noted and updated in plot plan.
32.	32. As per cl. No. 4.01 (b) of Sub-Section-D-1-4, Part-B of Section-VI, face of the buildings and facilities are located in such a way so as to have an offset of minimum 15 m with respect to center line of double lane road and 12 m with respect to center line of single lane road.	Noted. However, layout updated accordingly wherever feasible.
33.	Location of watch tower may please be review.	Noted and updated in plot plan.
34.	The coordinates of various facilities, road layout and approach road to facilities may please be indicated.	Coordinates of various buildings have already been shown. For left out buildings same has also been updated in plot plan now. The coordinates of approach roads shall be updated after finalization of building entries in respective drawings.
35.	BHEL requested to ensure that all facilities to be indicated in Plot plan as per scope of work.	Noted
36.	A minimum of 3.0m clear spacing to be provided between adjacent buildings/structure.	Noted. However, this clause is not feasible for CHP tapping TP's and routing of conveyors through existing facilities and Biomass TP.

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Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
37.	Multiple numbers of access to different parts of any building /facility like main plant building, control room, transformer yard etc. should be provided.	The access to different parts of any building shall be as per approved GA of respective buildings.
38.	Water supply line to be demarcated in Plot Plan Service Water supply line to be demarcated in Plot Plan.	Please note that raw water pipe has already been shown in plot plan. However, service water to various buildings shall be covered in rad piping layout drawing.
39.	1. The CHP layout is subject to approval of Conveyor profile drawing. 2. The location of the BMTP-1 to be finalized without disturbing the existing foundation/structure of crusher House-2. 3. The Ash handling scheme is proposed in Plot Plan is subjected to approval of Ash Handling P&ID and associated design documents. 4. Sizing of various facilities to be provided 5. Connection of various facilities to be provided. 6. As per site conditions, any modifications/relocations of existing facilities are to be carried out by BHEL with least affected of existing facilities.	1.layout is the input for preparation of Conveyor profiles (location of TP's & routing of conveyors), CHP profiles shall be prepared based on CHP facilities shown in plot plan, however if any changes required in profiles like elevation/inclination etc. to meet the system design requirement, same shall be taken care in profiles by maintaining the location of TP's & routing of conveyors as shown in the plot plan. 2. Noted 3.Regarding Ash handling scheme, Proposed facilities in the plot plan is as per the tender AHP scheme only. Further detailing will be part of the respective system layout. 4. For sizing of various facilities respective, GA drawing/document to be referred. 5. For connection of various facilities respective, GA drawing/document to be referred. 6. Noted. No modifications are required in the existing facilities of ash handling system.

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40.	CW MCC location to be mentioned.	Location has already been shown in Plot Plan. However, shown location is tentative & shall be finalized after finalization of Electrical system design.
41.	Cable Trestle near MCC-2B to be reviewed as it is fouling with MCC-2B Building.	Cable trestle re-routed to avoid fouling.
42.	CPU MCC to be located.	Noted and indicated in plot plan.
43.	Trestle Connection to IDCT & CW MCC to be given.	Please note that trestle connection to IDCT is not required. Further, the pipes / cables to CW P/H & nearby facilities shall be through pedestals/buried.
44.	ETP MCC location to be mentioned.	Noted and indicated in plot plan.
45.	Layout of facilities and equipment shall allow removal of Generator transformers, Station & Unit transformers without disturbing equipment, piping, cabling, ducts routed in the area.	Noted & Detailed layout shall be shown in Transformer Yard layout
46.	In transformer yard cables shall be laid in overhead trestle. Detailed to be shown in Transformer Yard layout	Noted & Detailed layout shall be shown in Transformer Yard layout
47.	Head room below cable/ pipe rack (if any) in transformer yard area for movement of spare GT shall be such that the same can be moved with bushing installed, with minimum statutory clearance for 800 KV voltage level.	As per general practice Spare GT will be moved without Bushing installed, also no cable/pipe rack is coming in the withdrawal path of Spare GT.
48.	Layout route of 132 KV cable for ST (while moving N to S direction) through cable trench may be reviewed for placing cable trench along with plant boundary wall.	As per space availability at existing site, proposed route for 132kV Cable Trench may be accepted.
49.	Specify type of crossing (Overhead OR Underground) for 132 KV cables over Ash slurry pipelines.	Crossing shall be underground.
50.	Ensure 8.0 m clearance at road crossing for cable trestle/ pipe racks/ pipes/ Conveyors	Noted
51.	Rail track shall be provided for all outdoor transformers up to road for movement of each transformer of size more than or equal to 7.5MVA Transformer.	Confirmed
52.	Indicate space for transformer in AHP and CHP MCC	Incorporated in the revised layout.
53.	BHEL is requested to indicate the following locations before submission of next revision of the document in line with the technical specification.	

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Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
	1. To specify location for FOPH control room, CHP control room, Centralized offsite control room for water system & AHP. 2. To specify location for RIO rooms (wherever applicable) for CW, CT, CPU, WS and AC & Vent systems as per the specification requirement	1. The control room of FOPH is along with fuel oil p/h. Accordingly name of building no. 26 has been updated. Further, Water system control Room along MCC Room, CHP control room indicated in plot plan. Also, the ETP control room has been envisaged with control room of water system with facility no. 70. 2. CWTP/CLO2/CWPH RIO ROOM along with CWTP/CLO2/CW PMCC, CPU & DM RIO/CR ROOM along with CPU DM MCC ROOM, and RIO room for ETP along with ETP facility have been shown in revised plot plan.
54.	It is understood that the present Plot Plan is preliminary in nature and shall undergo revisions as per progress of detailed engineering. Following are the basic observations in the present revision of Plot Plan: 1. All dimensions to be marked. 2. BHEL to indicate approach road to all buildings indicated in the Plot Plan. 3. BHEL to note that there is a change in Staircase Width, Height & Tread Width (refer Amendment D1-29) and APH Platform (refer Amendment SG-10B). The same needs to be updated in the Plot Plan (wherever applicable) Confirmation/acceptance still pending from BHEL's end.	1. Noted and indicated. However, these are tentative dimensions and shall be updated based on final layout drawings of respective buildings. 2. Noted. 3. Noted.
55.	Following facilities to be indicated in the Plot Plan: i) Storage Sheds ii) O&M Stores	i) Noted and shown in plot plan. ii) These are 06 Nos worker's rest room and has been updated in plot plan.

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Sl. No	NTPC Comments dtd: 13.11.2024	BHEL reply dtd: 20.12.2024
	iii) Fly Ash Classifier Hoppers	iii) Fly ash classifier hoppers (Coarse and Fine fly ash hopper) as required for Vacuum or Pressure conveying system shall be detailed after selection of the sub vendor. Currently location and area/space required for fly ash classification system is indicated in the plot plan. Refer Sl. No. 39 in the plot plan.
	iv) Aux. Cooling Tower (if required)	iv) Not required.
	v) Chemical House – PT Plant	v) Already shown in plot plan.
	vi) Ball Mill Building	vi) Already Shown in plot plan as facility no. 68.
	vii) Crusher House (Limestone)	vii) updated, Refer Sl. No. 41 in the plot plan.
	viii) Flash Tank and FT DT	viii) Noted and indicated in plot plan.
	ix) Raw Water Pumps	ix) tentative proposed location of Raw water pumps has been shown in existing raw water p/h. However, the same shall be updated after finalization of location.
	x) Switchyard Control room	x) Available spare space in existing switchyard control room shall be utilized for accommodating new panels for switch yard bay extension job under present scope.
	xi) Water System Control room	xi) Noted and indicated in plot plan.
	xii) Pipe cum Cable rack	xii) Noted and indicated in plot plan.
	xiii) GHP MCC	xiii) LHP GHP MCC located in CHP -LHP GHP MCC cum Control room Blg no 49
	xiv) Silo Utility Building	xiv) Silo utility building is already shown in the plot plan. Refer Sl. No. 41 in the plot plan.

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56.	Location of Dampers and Gates to be marked.	The dampers and gates shall be referred from respective air/gas ducting layout.
57.	"Face of the buildings and facilities shall be located in such a way so as to have an offset of minimum 15 m with respect to centre line of double lane road and 12 meters with respect to centre line of single lane road. The spacing between various buildings and facilities shall be suitably decided so as to avoid interference between the foundations."	Noted. However, this clause is not feasible for CHP tapping TP's and routing of conveyors through existing facilities and Biomass TP.
58.	Mark generator stator movement path from entry gate to TG hall and turning radius for these roads may be modified accordingly.	Noted and shown in plot plan.
59.	On turnings, the slope in the road to be avoided from safety point of view, the sloping part of road shall be away from the road turnings to avoid turning and slope change at the same time. Kindly check and ensure this for all the road turnings.	There is no slope inside plant road. Further, it will be ensured that sloping part of road shall be away from road turnings.
60.	Mark dimensions and coordinates for all the buildings and facilities and ensure not to exceed dimensions shall be marked in the plot plan till finalization of size of the building.	Noted and tentative dimensions have been shown. However, the plot plan shall be updated based on finalization of respective facilities.
61.	It is observed that BHEL has combined CHP and LHP MCCs in one building. This may create confusion. BHEL to check.	NTPC Talcher, Singrauli LHP GHP MCC are located in CHP buildings. NTPC to accept the same
62.	Fly Ash classification system has Classifier Silos, Fine Ash Hoppers and Coarse Ash Hoppers. Location of each to be marked separately.	Classifier silo, Fly ash classifier hoppers (Coarse and Fine fly ash hopper) as required for Vacuum or Pressure conveying system shall be detailed after selection of the sub vendor. Currently location and area/space required for fly ash classification system is indicated in the plot plan.
63.	Check location of fly ash hoppers as fly ash hoppers may affect the performance of ID fan (due to dust nuisance)	There is no interface with ID fan.
64.	Straight length of CW channel should be sufficient to reduce Eddy formation into the CW forebay. BHEL to check and ensure length of forebay.	Please note that there is no bend in CW channel, further sump model study and CFD analysis shall be conducted to establish flow characteristic and flow

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		pattern in CW forebay as per specification. Hence, provided straight length (~55.0m) of CW channel is sufficient.
65.	Kindly indicate all Clarifiers and ensure location for preventing dust ingress.	Noted and ensured. The clarifiers have been located away from dust prone facilities.
66.	Sufficient space for separation of drains to be ensured to enable ZLD of plant as per specification. Further, list of ZLD collection pits to be included as annexure to this plot plan.	The ZLD collection pits shall be updated in next revision of plot plan after finalization of schemes for ZLD. Further, separation of drains shall be ensured while finalization of collection and transfer of ETP pits. To be updated
67.	Position of Rails in between Road, may be reviewed	Noted and updated in plot plan.
68.	CHP water treatment System to be shifted to near CHP area	Please note that facility number 27/28/29 are part of CHP treatment system and have been shown nearby CHP area as per available space.
69.	CABLE TRENCH TO BE SHIFTED TOWARDS ROAD	Noted and shifted.
70.	DOUBLE LANE ROAD TO BE PROVIDED UPTO OUTER ROAD	The approach road has been shown as per discussion with NTPC.
71.	EXISTING ROAD TO BE SHOWN	Noted and shown in plot plan
72.	APPROACH TO IDCT TO BE INDICATED	Noted and shown in plot plan
73.	TO BE CONNECTED TO IDCT	Noted and CW channel has been shown in plot plan. However, beyond terminal point, CW return pipe shall be updated upon receipt of vendor drawing.
74.	ash pipe line from ASPH-1 to combined ASPH to be connected	Noted and shown in plot plan
75.	ENTRY & EXIT OF TRUCK TO BE REVIEWED IN LINE WITH PROPOSED ASH TO SAND UNIT	NTPC is requested to furnish all the details/drawings of the under-construction ash to sand unit for detailing of the layout in this area. Further details from the topographical survey of ash silo area shall be referred.

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76.	location of decanted water sump to be shifted between TP no. 16 & 18	The decanted water sump is related to CSSP. Hence, the same is located near exist. CSP-II.
77.	1. avoid too many bend in road & provide straight road 2. Rail line for transformer to be shifted from main road as this main approach road to ST-III area.	1. Please note that the bend can't be avoided and the same is far from underpass. Also, considering the main plant road, the same is suitable. 2. Noted and updated.
78.	Relocate this STP to isolate area	Please note that these are decentralized modular type STPs as per tender specification to cater the sewage treatment of nearby toilet facilities. Complete isolation of these STPs is not feasible.
79.	THE OPTION FOR SHIFTING CONV. 35A/B TOWARDS ESP/BOILER SIDE & CONV 38A/B TOWARDS ROAD SIDE MAY PLEASE BE REVIEW.	As discussed with NTPC, Shifting of CONV.35A/B is not feasible as same is fouling with ESP/FGD control room.
80.	BHEL requested to avoid any facility in this area as there is existing park.	As informed by NTPC, structure within 25-meter space from CHP office is to be avoided due to park, Accordingly, ash classification facilities are suitably updated.
81.	ISG RACK TO BE SHIFTED TO OTHER SIDE OF ROAD.	Noted & Incorporated
82.	Indicate approach path for ESP/FGD C/R	Noted and indicated.
83.	EXISTING ROAD TO BE SHOWN	Noted and indicated.
84.	Ash slurry pipe line to be shifted by about 10m towards TP-26 as area was already allocated for existing ST-I & II facilities.	Refer modified ash slurry pipe route.
85.	PROPOSED ASH SLURRY PIPE LINE TO BE SHOWN ON GLP.	Facilities are shown up to the terminal point within plant boundary.
86.	Should be 51	Noted
87.	Connecting road to be provided in laydown area (methanol/hydrogen plant)	Pls note that as per the Road Layout, connecting road is not in the scope. Also, specifications do not include provision of road alongside pipe pedestal corridor.

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88.	What is this blue line near existing units ?	The same is cable rack upto switchyard area.
89.	BHEL to review possibility of placing chimney at the centerline of boiler.	ID fan-A & B outlet is joining commonly at center of boiler axis for better equal flow as per existing arrangement. (i.e LARA) Existing arrangement (with or without FGD) is preferable for better gas flow to chimney & optimum foot print area for brown field project.
90.	Road near exist heavy vehicle shed to be updated	Noted and updated.
91.	BHEL to plan facilities like worker's shed 1 to 4 & covered shed taking care of exist canteen behind exist. CHP office.	Noted and updated.
92.	BHEL to not include temporary site facilities in plot plan.	Noted.
93.	Shift safety control room near exist. Fire water p/h.	Noted and updated.