



**BHARAT HEAVY ELECTRICALS LIMITED**  
**PROJECT ENGINEERING MANAGEMENT, NOIDA**

Date-11-Jul-22

**CORRIGENDUM- 02**

<b>PROJECT</b>	<b>:</b>	<b>3×800 MW PVUNL PATRATU TPP Phase-I</b>
<b>PACKAGE</b>	<b>:</b>	<b>COAL HANDLING PLANT RUN-OFF WATER TREATMENT SYSTEM</b>
<b>ENQUIRY NO</b>	<b>:</b>	<b>E-7090/2022 Dated 20.10.2022</b>
<b>SUBJECT</b>	<b>:</b>	<b>DUE DATE EXTENSION</b>

Type of Corrigendum			
Technical Corrigendum -	<input checked="" type="checkbox"/>	Commercial Corrigendum -	<input checked="" type="checkbox"/>

Please note the following:

Due date is being extended from **07.11.2022 to 15.11.2022 (11:00 AM)**. Bid opening shall be done at **04:00 PM** on the due date.

Please find reply to Pre Bid Meeting attached as Annexure I to corrigenda. Vendors are requested to follow the same while quoting their offer.

All the other terms and conditions of the tender enquiry shall remain unchanged. All the bidders are requested to quote accordingly.

Yours faithfully,

For and on behalf of BHEL

**Sumeet Sahay**  
**Manager/BOP**

S.No.	Volume	Section	Clause No.	Page No.	Specification Requirement	Clarification	Reasons for Clarification	BHEL Reply
1.	VOLUME – II B	C1	1.03.00 GUARANTEE UNDER CATEGORY –III	80	Each clarifier unit shall be guaranteed for design effluent capacity meeting the effluent quality as mentioned below. a. Total suspended solids (TSS) less than and equal to 10 ppm.	Total Suspended Solids (TSS) at the outlet of each Clarifier shall be $\leq 20$ ppm	TSS $\leq 10$ ppm is not achievable at Outlet of Clarifier to achieve TSS $\leq 10$ ppm additional Rapid Gravity Sand Filters shall be required. In view of the above we request you to kindly change the guaranteed TSS value at outlet of clarifier to $\leq 20$ ppm.	Please follow tender specification requirement.
2.	VOLUME-II-B	C1	Clause No. 16.2 – 2)	29 of 538	The overall area of the unit shall be based on an average flow velocity not more than 3 M <sup>3</sup> /M <sup>2</sup> /hr.	As per standard practice average flow velocity for HRSCC shall not be more than 2.1 M <sup>3</sup> /M <sup>2</sup> /hr.	High flow velocity will result in poor quality of clarified effluent. With average flow velocity of 3 M <sup>3</sup> /M <sup>2</sup> /hr TSS value in treated effluent will be around 50 ppm. In view of the above we request you to kindly consider max 2.1 m <sup>3</sup> /m <sup>2</sup> /hr flow velocity for HRSCC design.	Please note that The overall area of the unit shall be based on an average flow velocity of 3 M <sup>3</sup> /M <sup>2</sup> /hr.
3.					AS PER TENDER SPECIFICATION : The filter press (2 Nos) shall be used for dewatering the sludge coming out of preceding Sludge Sump. Each filter press shall be designed for the handling of total sludge generated while the other filter press will be under backwash/cleaning operation ensuring continuous desludging of the sludge generated.	Hence , as per specification the Filter press shall be operated alternatively one after the other while one of the filter press is under cleaning after its operation batch . So both the Filter Press combined shall be able to handle the total sludge produced per day ie. 2 x 50% . Kindly confirm		Please follow tender specification requirement.
4.					AS PER TENDER SPECIFICATION :  The inlet total suspended solids (TSS) of 100 ppm for which the Chemical dosing is around 100ppm a) Alum as Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> : 70 ppm on 100% basis b) Lime as Ca(OH) <sub>2</sub> : 30 ppm on 100% basis c) Synthetic Flocculent : 1 ppm d) Coagulant aid : 2 ppm	For an Inlet Parameter of 100ppm TSS , the chemical dosing load of 100ppm is very high and is not recommended as it will only result in a very high sludge generation and increased capacity of the corresponding sludge handling system - Filter Press and overall Dry solids produced . Kindly confirm whether the Sludge handling and Filter press system shall be sized for the actual chemical dosage required		Please follow tender specification requirement. The overall system and associated equipment sizing including the sludge handling & filter press system shall be designed as per the dosing rate defined in the tender specification.
5.					The approx. distance of the referred CHP Tank has not been indicated in the Tender Specification	Please share/indicate the tentative distance of the CHP Tank from the Plant Area		Please Refer Cl. 4 (d)/Section-C1/Vol-IIB of Tender specification.
6.					The type of piping that stretch beyond the CHETP Plant area has not been indicated - Above Ground or Buried Piping	Please specify the piping type as required based on site requirement , along with the specification for the wrapping coating and depth of the pipe laying , etc.		Please note that for the scope of buried piping, following approx. buried length to be considered as a part of scope,  1. 125 meter (of 170 meter of Water Discharge piping from Clarifier feed pumps discharge to stilling chamber which is part of bidder's scope as defined in tender specification clause 4.0 (b)). 2. 400 meter (of 900 meter piping from Supernatant Transfer Pump to Cooling Tower basin (Cooling Tower area) & Waste Service Water Sump

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								<p>(ETP Area) which is part of bidder's scope as defined in tender specification clause 4.0 (e)).</p> <p>3. 30 meter (of 50 meter piping from Distribution chamber to nearest storm water drain which is part of bidder's scope as defined in tender specification clause 4.0 (f).)</p> <p>4. 100 meter (of 1200 meter piping from SG area unit-2 to Coal slurry settling pond (CSSP) which is part of bidder's scope as defined in tender specification clause 4.0 (g)).</p>
7.					<p>AS PER TENDER SPECIFICATION : The redundancy requirement for the instruments is not clear in the Tender Specification and the Tender PID .</p>	<p>Please clarify whether the instruments are to be followed as per Tender PID or Tender Specification.</p>		<p>Please note that the instruments are to be followed as a minimum requirement as per tender P&amp;ID. However the complete scope in terms of redundancy requirement shall be as per tender specification.</p>