

Ref No.: PE/PG/BLI/E-6816/2021 /CORRIGENDA/01

Date: 17.12.2021

CORRIGENDA - 01

PROJECT: 2X250MW NSPCL BHILAI TPP-FGD SYSTEM

PACKAGE: AGITATOR OF FGD SLURRY TANKS

TENDER ENQUIRY NO: PE/PG/BLI/E-6816/2021 DATED 01.12.2021

TENDER DUE DATE: 28.12.2021 (2.00M)

Bidders to note following amendments w.r.t subject tender:

- 1) Pls refer enclosed Annexure-1 for Technical Pre-Bid Clarification pertaining to subject tender.

Bidders to ensure the submission of bid within the tender due date and time.

With Regards,
For & on behalf of BHEL

Isha Rawat
Dy Mgr/PG-III/BHEL-PEM

TENDER ENQUIRY NO: PE/PG/BLI/E-6816/2021 DATED 01.12.2021				
AGITATOR OF FGD SLURRY TANK: 2 X 250 MW BHILAI FGD				
Pre-Bid Clarification				
Sr. No	Section/Clause/Page No	Statement of the referred Clause	Clarification Required	BHEL REPLY
1	Section C, Sub-Section-C1 3.2 - viii Page 38 of 372	Material of Construction - viii Flush Pipe for Startup with flanges FRP or Alloy926 or Alloy59 (Material has to be.....)	Same to be excluded from Bidder supply scope, please confirm	Noted. The same is in BHEL scope.
2	Section C, Sub-Section-C1 3.2 - viii Page 38 of 372	Material of Construction - vii Tank Nozzle (for inserting agitator) with Flange Not applicable (in BHEL scope)	Two clauses are contradicted w.r.t Vessel Nozzle and mating flange for side entry agitator, kindly please confirm that Vessel Nozzle and mating flange for side entry agitator mounting are excluded from Bidder Supply scope	Vessel Nozzle is excluded from bidder scope. However, the mating flange (agitator flange) including mountings are included in bidder scope of supply.
	Section C, Sub-Section-C1 4.0 - A) - 1 - x Page 41 of 372	Supporting arrangement including tie rods, gusset plates etc. of Side Entry Agitator on the tank Wall. Vessel Nozzle and mating flange for supporting on the tank wall, gaskets and fasteners.		
3	Section C, Sub-Section-C1 4.0 - A) - 1 - xii Page 232	Scope of Supply & Services Foundation plate with foundation bolts, vessel nozzle	1. Vessel nozzle shall be in BHEL scope, pls confirm. 2. Foundation plate with foundation bolts for fixing o the External Supports of side entry agitator shall be connected by welding with rebar of Absorber or Aux Tank foundation to ensure same settlement so as to avoid the impact on agitators, those IPs shall be imbedded during foundation construction, so design can be done by bidder, but supply to be excluded from Bidder scope, please confirm.	1. Noted. Vessel nozzle is excluded from bidder's scope. 2. Bidder to note that incase of side entry agitators, if the supporting arrangement is through ground, then BHEL shall provide the foundation (civil works), however, the supporting arrangement along with bolts shall be provided by bidder. Also, in case of vertical agitators, the foundation plate along with bolts shall be in bidder's scope of supply.
4	Section C, Sub-Section-C1 4.2 - A) - iv) Page 45 of 372	Impeller should be dynamically balanced to Gr: G16: ISO-1940 after rubber lining of shaft.	As per us and Gr: G16: ISO-1940, since the agitator impeller RPM is very low Dynamic balance is not applicable and only static balance will be carried out. Further, in the NTPC Agitator Quality Plan only static balance test if required. Pls confirm.	BHEL informed that the balancing (static/dynamic) shall be decided during detail engineering based on the applicable codes and standards furnished by the bidder and subject to NTPC approval. Bidder to comply.
5	Section C, Sub Section-C1 4.2 - B) - 1 - XI) Page 46 of 372	Seal life has to be guaranteed, taking into consideration all its components for 25000hrs. If the seals fail before the completion of guaranteed period, the same should be replaced free of cost by the bidder.	As per Mechanical Seal OEM, the standard warranty given is only 8000 hrs so request to accept guarantee life as 8000 hrs only. However, actual working life under design condition can be expected up to or more than 25000hrs subject to strictly following up the O&M guidelines.	Noted. Same shall be discussed during engineering and shall be subjected to NTPC approval.
6	Section C, Sub-Section-C1 4.2 - B) - 2 - Vertical Agitators for Other Slurry Tanks & Drain Pit Tanks - I Page 46 of 372	Agitator shall be supplied with stuffing box or any proven equivalent or superior sealing type. Construction of Gland Packing shaft seal system shall be as per the below fig:	Requirement given here is applicable when there is pressure inside of Tanks however no pressure for slurry Tanks and drain pit, as per our current design for existing NTPC projects Skeleton Oil Seal will be used here.	Refer Sl. no. 4 of ANNEXURE-8: AGITATOR SCHEDULE for the requirement of stuffing box.
7	Section C Sub Section-C1 4.2 - L) - vii) Page 49 of 372	Impeller should be dynamically balanced to Gr: G16: ISO-1940 after rubber lining of shaft.	As per us and Gr: G16: ISO-1940, since the agitator impeller RPM is very low, Dynamic balance is not applicable and only static balance will be carried out. Further, in the NTPC Agitator Quality Plan only static balance test if required. Pls confirm.	Refer our reply at Sl. no. 4.
8	Section C, Sub-Section-C1 9 INSPECTION AND TESTING - 7 Mechanical Run Test (in air) Page 56 of 372	Mechanical Run Test (in air) Each Agitator unit shall be given a 4-hour mechanical run test in air at vendor's shop.	1 The quantity of Agitator to be tested shall be as per approved MQP post order, but shall not be each agitator. 2. "4-hour mechanical run test in air" technically is not allowed.	The quantity of Agitator to be tested shall be as per approved MQP during detail engineering, subjected to NTPC approval. Further, the Mechanical run test for Agitators shall be carried out with air/water along with other test requirement in line with the QAP to be approved by customer during detailed engineering. Bidder to comply.
9	Section C, Sub-Section-C1 9 INSPECTION AND TESTING - 8 Mechanical Run Test (in slurry of similar concentration as applicable for the project) Page 56 of 372	Mechanical Run Test (in slurry of similar concentration as applicable for the project) Each agitator unit shall be given a load test in slurry at the vendor's shop. The duration of this test shall be 4 hours unless agreed otherwise.....	1 The quantity of Agitator to be tested shall be as per approved MQP post order, but shall not be each agitator. 2. Testing time will be 30 mins as per existing NTPC approved MQP, it will not be 4 hours 3. Testing slurry will be bidder's existing slurry inside the testing platforms, slurry details can be provided before testing, but it will not be in slurry of similar concentration as applicable for the project	The Mechanical run test for Agitators shall be carried out with air/water along with other test requirement in line with the QAP to be approved by customer during detailed engineering. Bidder to comply.

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Pre-Bid Clarification				
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10	Section I, Sub-Section-D Page 256-263	List of Makes of Sub-Vendor Items	Sub-vendor given for Motors Paints etc please confirm Bidder can used NTPC approved vendors beyond list, or propose its own vendors during DDE post order	Bidder has to submit the sub-vendor questionnaire provided with the specification in Section I, Sub-Section-C2B along with necessary credentials in case the successful bidder wants to propose its own sub-vendors during detail engineering. Further as mentioned in the technical specification, acceptance of makes shall be subjected to BHEL/ End customer acceptance during the detail engineering. Bidder to comply.
11	Sub-Section D and Section II	Annexure I-V & Annexure 1-11	Please provide editable copy of those Annexures as well as BQO	Bidder to edit in the pdf file provided in the Technical specification.