

Minutes of Pre- Bid meeting and clarification to bidders.

Name of Work : **Modification of Tail Race Outfall Structure Gates of Nathpa Jhakri Hydro Power Station (NJHPS) for Tandem Operation of NJHPS and Rampur HEP.**

Tender No : **ICB NO.: CCD- NJ-101-4**

Date of Pre-Bid Meeting : **15.12.2011**

Clarifications to the Technical and commercial Queries raised by the Bidders

S. No	Contract Provision/Clause reference	Query raised by the bidder	Reply of SJVN
1	Vol-1: Instruction to Bidders and Conditions Governing the Contract Clause 3.0 (vi)	Due to the special equipment involved and the extensive documents and data to be submitted with the offer we kindly request an extension of the bid closing date from 12.01.12 by at least four weeks to 10.02.12.	May refer corrigendum No.1
2 (A)	Vol-II: Technical Specification, Chapter-I : Intent of Technical Specification and Scope of Work.		
i)	Clause 1.2.6	Please provide detailed dimensions and system drawings of hoist winches to be	The General assembly drawing of the hoist winches are enclosed herewith

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		packed in containers.	as Annex-I. Further, if detailed drawings are required, the same shall be provided during detailed design stage.
ii)	Clause 1.6.0	For such type of project we normally use programs based on MS – Project. Considering the limited time for bidding we kindly request your approval for using MS-Project instead of Primavera.	The bidder can submit the schedule either in Primavera or in MS-Project.
iii)	Clause 1.17.0	<p>Unfortunately, we were not able to find the following drawings in the tender file:</p> <p>NJ-HM-LMV-11 NJ-HM-SA-12 MG-NJ-TRT-18 MG-NJ-TRT-19</p> <p>Especially the basic arrangement for the 75 ton EOT Crane, the space available at the service platform at El. 1026.50m considering the space occupied by other equipment at the same and the dimensions of the gate slot, pipe and cable channels etc. are essential for the preliminary design during the bidding process. The hydraulic hoisting equipment of the dimension required including accumulator station etc. will require a</p>	The drawings as asked are available in the tender file. The major dimensions of the various equipment are shown in the drawing no. MG-NJ-TRT-19. The proposed location of the control room is also shown in the said drawing. In case any further dimension is required, the same shall also be provided by SJVN.

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		significant space in this area.	
B)	Chapter-II: Description and Design Criteria		
i)	Clause 2.1.1	In this clause, it is mentioned that the gates and hoists shall be designed for the condition that water may overflow the TRT Deck at El. 1026.5m. This is very generous. What shall be considered as maximum level for positioning the sensitive equipment like hydraulic units, accumulators and controls?	The hydraulic equipment viz. power pack, accumulators etc. require significant space and such space may not be available on the deck level at El. 1026.5m. Therefore, in the specification drawing no. MG-NJ-TRT-19, the tentative location of the control room has been shown. The proposed control room location may not be affected by the overflowing water.
ii)	Clause 2.1.2	The data available with regard to reinforcement in concrete as shown in the drawings seem to be not fully sufficient to verify whether the existing structures are adequate as far as concrete quality and reinforcement bars are concerned:	The specification drawings show only the broad details of the 1 st stage and 2 nd stage embedded parts. However, as requested, an extract from the civil drawing showing typical reinforcement details in the vicinity of the gate groove is hereby enclosed as Annex-II. The detailed drawings of the civil structure can be provided during the detailed design stage.
	a)	Is the first stage concrete also defined with grade M-25?	The concrete in the first stage concrete is M-20 Grade.
	b)	What are the technical characteristics of the materials of the shear reinforcement bars.	High yield strength deformed bars conforming to IS: 1786 (Grade Fe 415) have been provided.

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	c)	What is the effective length of the reinforcement bars for anchorage within the concrete piers?	Please see the relevant extract from the civil drawings for details. However, it may be mentioned that a development length of 1200mm has been provided.
	d)	Are there any special requirements for the load transfer of the hydraulic hoisting equipment and crane to the service platform at El. 1026.50m.	The general arrangement of the hydraulic equipment has been shown in the drawing no. MG-NJ-TRT-18. The Hoist support structure and the EOT Crane shall be designed accordingly. However, it would be preferable that the loads are transferred to the piers directly.
		However, we are suppliers of steel structures and machinery and neither equipped or used to perform or improve civil structures. Therefore, we would suggest the employer to perform an upgrade of the existing civil structures in case it turns out to be recommendable.	The modification, upgradation or construction of relevant civil works shall be got done by SJVN through some civil contractors and shall not be in the scope of hydro-mechanical contractor.
iii)	Clause 2.1.5.2 (iii)	Under this clause and several other clauses, a number of different standards are mentioned as far as the design of the components for the hydraulic hoisting equipment is concerned. As most likely the major equipment concerned will be sourced in Europe and in order to avoid any conflicts between the standards	In this regard, kindly refer clause no. 1.1.3: Standards and Codes (Vol-II, Technical Specifications & Specification Drawings), which is self explanatory. However, during detailed designing of the hydraulic component, if required, the approval to use international standards as per the above clause shall be given by

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		mentioned we would recommend only to use the latest edition of DIN 19704 for the design of hydraulic cylinder, hydraulic unit, hydraulic piping etc. We kindly ask for your approval.	SJVN.
C)	Chapter-IV : Manufacture		
i)	Clause 4.2.1	This clause defines the quality of finished surfaces. Please confirm that the existing structures of the embedded parts correspond to these requirements as specified.	The TRT Gate embedded parts were installed during the 2002/2003 and the project is also in operation since 2003. We estimate that as of now, the surface finish may not be same as it was during fabrication stage. However, you may inspect the condition of the embedded parts at site.
D)	Annexures:		
i)	Completion Schedule	<p>In our preliminary evaluation of the completion schedule we found it quite problematic to achieve it due to the special and rather complex equipment involved.</p> <p>Therefore, we would like to explain our position with a brief for the first submission of documents. After a finalization of the overall basic design several interactive processes with</p>	<p>The completion schedule shall be same as appended with the bid documents (Vol.-II, technical specifications, specification drawings).</p> <p>The completion schedule may be read as 14 Months(426 Days) in place of 17 Months(519days) indicated in Clause -7 of NIT</p>

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		<p>prospective experienced sub suppliers for the hydraulic hosting equipment will be required. This refers to inquiry, clarification, sub-proposal, negotiation and sub-contractor will be in a position to provide drawings as defined for submission 1. In terms of normal conditions these activities will require a time frame of 4 to 5 months.</p> <p>Due to contractual conditions the final procurement of the equipment can be forwarded after 2nd approval. Thereafter the procurement of the raw materials, manufacturing and machining will take another 10 months due to the fact that the dimensions are quite somewhat beyond usual standard dimensions.</p> <p>Considering these processes required including transport, customs clearance, erection and commissioning we feel duration of some 24 months would rather be realistic for the completion of the works.</p> <p>We kindly request a revision of the completion schedule accordingly.</p>	
ii)	Drawings	In the drawings MG-NJ-TRT-16 and	The erection tolerances of various

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		MG-NJ-TRT-17 we were not able to find any data guiding strips. In addition we would request the data for the tolerances for the flatness of the support and sealing planes as well as the tolerances of rails.	dimensions as per the commissioning documents shall be provided during detailed design stage. The relevant extract from the fabrication drawings of the gate and embedded parts is enclosed herewith as Annex-III.