

Pre Bid Technical Clarification No.6 against NIB No.377 dated 26.11.2020

Sl. No.	Bid Stipulation	Bidder's Query	NEEPCO's Reply
1.	<p>SECTION-IV, VOL-2, PART-I Clause No.1.2: 183 of 639</p> <p>7. The adequacy of loading (point and distributed for various loads and loading patterns) and structural safety margin availability of the existing structures and foundations, by their residual strength mapping, using advanced and proven Tekla Building Information Modelling (BIM) software or any other suitable method shall be demonstrated.....</p>	<p>Customer is requested to provide the drawings of existing foundation (showing General Arrangement, Dimensions, Elevations, cutputs/pockets and Reinforcement details) to bidder for carrying out adequacy check for the foundation of equipments in bidder's scope.</p>	<p>Residual strength mapping of foundation & structures on which equipment under scope of this tender will be installed, need to be carried out by the bidder. Bidder may engage third party with Tekla BIM software for the purpose, who would be furnished with all relevant required data. The third party so engaged shall interact directly with the corporation for the required residual strength mapping reports / recommendations.</p>
2.	<p>SECTION-IV, VOL-2, PART-I Clause No.1.2: 183 of 639</p> <p>7. The adequacy of loading (point and distributed for various loads and loading patterns) and structural safety margin availability of the existing structures and foundations, by their residual strength mapping, using advanced and proven Tekla Building Information Modelling (BIM) software or any other suitable method shall be demonstrated.....</p>	<p>Please clarify NDT testing for condition assessment of existing foundations(for equipments in bidder's scope) shall be in bidders scope or not.</p>	
3.	<p>SECTION-IV, VOL-2, PART-I Clause No.1.2: 183 of 639</p> <p>7. The adequacy of loading (point and distributed for various loads and loading patterns) and structural safety margin availability of the existing structures and foundations, by their residual strength</p>	<p>In the clause 1.2, tekla or other suitable method is mentioned for checking structural safety margin, however in clause 36.3 specifically tekla software supply and model development is mentioned. Please clarify other suitable software for checking structural safety margin is acceptable. In the clause 1.2, tekla or other suitable method is mentioned for checking structural safety margin,</p>	

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	mapping, using advanced and proven Tekla Building Information Modelling (BIM) software or any other suitable method shall be demonstrated.....	however in clause 36.3 specifically tekla software supply and model development is mentioned. Please clarify other suitable software for checking structural safety margin is acceptable.	
4.	<p>Section-III A, General Terms & Conditions Clause No. 36.3: 81 of 639</p> <p>Development and Supply of TEKLA software model to NEEPCO as deliverable incorporating the following. Capture of input loading data (distributed and point loads including dead and dynamic loads from the E&M equipment supplier, mapping and incorporation of cable, pipe routing and cut out details from cable and pipe routing and cut out drawings etc, in the TEKLA BIM software by the software supplier with demonstration of impact of these factors on the structural strength, detection of stress hot spots etc</p>		
5.	<p>Section-IV, Vol-2, Part-II- 9.5.1.1- pg 265 of 639</p> <p>B) Direct or combined steady stresses: 1) For materials used in the construction of the equipment, unless otherwise specified, the maximum stress due to maximum normal rated load operating conditions shall not exceed onethird of the minimum yield point or one fifth of the minimum ultimate strength of the material, whichever is lower.</p>	For given generator, rotor rim will be made of high quality sheets / laminations. For high quality steel yield strength (YS) is closer to the Tensile strength (TS), therefore the TS/YS ratio is small. Hence requirement “one-fifth (1/5) of the UTS (Ultimate Tensile Strength)” is too conservative.	<p>Bid specification shall prevail. The specification requires the maximum stress due to maximum normal rated load operating conditions shall not exceed one third of the minimum yield point or one fifth of the minimum ultimate strength of the material, whichever is lower.</p> <p>Bidders suggestion for abnormal load condition is already a part of the specification at Sl. 2) of the same clause.</p>

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Designation of steel grade		Minimum Yield Strength R_{gH} N/mm ² . ¹⁾	Tensile Strength R_m , N/mm ² . ¹⁾
Name	Material Number		
S315MC	1.0972	315	390 - 510
S355MC	1.0976	355	430 - 550
S420MC	1.0980	420	480 - 620
S460MC	1.0982	460	520 - 670
S500MC	1.0984	500	550 - 700
S550MC	1.0986	550	600 - 760
S600MC	1.8969	600	650 - 820
S650MC	1.8976	650 ^{*)}	700 - 880
S700MC	1.8974	700 ^{*)}	750 - 950

We suggest following stress limits:

- Generator parts under normal load conditions: combined stress not to exceed 50% of yield strength of material
- Generator parts under abnormal load conditions: combined stress not to exceed 66.7% of yield strength of material (i.e. factor of safety of 1.5 p.u. as specified in tender specification).

Combined stress limited to 66.7% of the Yield strength under abnormal condition (as specified above) is a good design criterion which is commonly used for such high speed generators. With these material stress limitations we have successfully build numerous units all around the world that are long time in operations without any problems.

Kindly confirm.

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<p>6.</p>	<p>Section-IV, Vol-2, Part-II00 General Technical Requirement-PTS page 259</p> <p>E) Cable Schedule Preparation of cable schedule for interconnection of their respective equipment to Local control cubicle etc., or any other panel / equipment / supplied under this package is deemed to be included in the scope of this contract. Preparation of cable schedule (power, control and instrumentation) of entire E&M works for successful commissioning of the plant as a whole with proper co-ordination and inputs / data / details / drawings etc., from Contractor of other packages is included in the scope of this Contract.</p>	<p>We would like to restate that the scope of supply in this tender is limited to Generator, Control, Protection, Excitation, Governor and some components of Turbine. Therefore we can provide cable schedule of the supplied equipments under the scope of this tender only. Further, kindly note that preparation of Cable schedule of entire plant is a process of about-5-6 months and required accurate inputs to avoid mismatch at later stage. Please also note that majority of the E&M equipment of the power plant such as HV & LV switchgears, switchyard equipment, generator transformers, auxiliary transformers, cooling water system, drainage system, various motors/pumps and other auxiliary systems etc. are to be supplied by third party (other contractors not part of this tender) and placed at different location in the plant, So the co-ordination with so many third party suppliers for drgs/docs./inputs/clarification may not be possible in a proper manner which leads to incorrect/delay in cable schedule. Due to delay because of third party supplier unforceen causes/ incomplete inputs, we will be responsible for complete delay. Since we have to acheive project milestone/deliverables on time which are neither in our control nor we have information to work up on, it would not be justified to prepare the cable schedule of the complete plant under this tender. Therefore it is requested to remove the cable schedule preparation of the entire power plant equipment and cable schedule only for the equipment to be supplied under this tender shall be included in the scope. Please review and accept the above.</p>	<p>Bid specification shall prevail.</p> <p>Preparation of cable schedule of entire E&M works for successful commissioning of the plant shall be in the scope. Necessary inputs required from other package contracts shall be intimated and shall be made available for the purpose.</p> <p>Responsibility of providing required inputs from third party / other vendors lies with NEEPCO and not the bidder.</p>
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7.	NIB Clause 12	Our colleagues from Europe are involved in this project and we have to take necessary approvals from authorized persons in Germany for Design and Commercial aspects related to project before bid submission. But Europe is closed due to Christmas and New Year holidays until mid of Jan'21. Therefore, we request NEEPCO to extend the bid submission date till 30.01.2021	As per Corrigendum No.3 published on 31.12.2020, the last date of submission of online Bids and date of opening of Techno-Commercial Bids shall be 16/01/2021 and 18/01/2021 respectively.
8.	"Clause 36.3 Terms of Payment/ (a) Supply)/ (iv) Milestone Payment"	"Clause 36.3 Terms of Payment/ (a) Supply)/ (iv) Milestone Payment", the milestone payment i.e. 5.25% of Ex-Works Price shall be paid by NEEPCO to Contractor against completion of "Development and supply of Tekla Software model to NEEPCO", however, this work is expected to be completed within 4-6 months time from the date of LOI, therefore, we request that, 100% payment upon completion of this work shall be released by NEEPCO. Hence, request you to kindly modify the payment terms accordingly. Please confirm.	Bid Stipulation shall prevail