NTPC Limited
CC-OS, EOC Noida

Subject: **Qualifying requirement & other details for vendor enlistment – supply of Boiler Straight Tubes (Carbon Steel).**

<table>
<tr><td>A)</td><td colspan="2">Details of MEG (Material Enlistment Group)</td></tr>
<tr><td></td><td>MEG No</td><td>48MEG-01</td></tr>
<tr><td></td><td>MEG Description</td><td>Boiler Straight Tubes (Carbon Steel)</td></tr>
<tr><td></td><td>Responsibility Centre</td><td>NTPC ER-II Head Quarters, Bhubaneshwar</td></tr>
<tr><td>B)</td><td colspan="2">Technical Criteria of QR:

<u>Option-I:</u>
a) The applicant should be a manufacturer of Boilers (Steam Generator) and should have supplied Boiler (Steam Generator) to any 2 (Two) different Thermal power Plants each of Unit Capacity of 200 MW or, higher capacity and which are in commercial operation for at least two years prior to the date of application and are in satisfactory operation.

AND

b) Should have either In-house Tube manufacturing & testing facilities for Carbon steel tubes or, should have Sourcing tie-up agreement with well-known tube maker approved by Central Boiler Board, India for manufacturing of Cold Drawn Seamless Tubes of Carbon Steel material.

<u>Option-II:</u>
a) The applicant should be an approved well known tube maker of Central Boiler Board, India for manufacturing of Cold Drawn Seamless Tubes of Carbon Steel material

AND

b) The applicant should have executed orders for supply of at least 2000 meters of Cold Drawn Seamless Straight Tubes (carbon steel) in one order during last 5 years to any Thermal Power plant having unit capacity of 200 MW or, higher capacity or, to any Boiler manufacturer manufacturing and supplying boilers for a power plant of 200 MW or, higher unit capacity prior to the date of application for enlistment

AND

c) The applicant must have the following in-house manufacturing & testing facilities:

I. Manufacturing Facilities:
i. Draw bench
ii. Heat Treatment facilities
iii. Tube Straightening machine

II. Testing Facilities:
i. Continuous feed ultrasonic flaw detector
ii. Spectrometer for material composition testing</td></tr>
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	iii. Portable XRF Alloy analyzer (PMI Machine) iv. Universal testing Machine for tensile & elongation test v. Rockwell and Vickers's Hardness Tester vi. Ultrasonic Flaw detector vii. Eddy Current Test facility for flaw detection viii. Hydraulic test arrangement for carrying out Hydraulic Test upto 450 KSC ix. Flattening Test x. Flaring Test
C)	**Documents to be submitted as proof of meeting the stipulated Qualifying Requirements:** *For Option-I:* *i. Order Copy evidencing Manufacture & Supply of Boilers of 200 MW or higher capacity to two different Thermal Power Plants* *ii. Evidence regarding Date of commissioning of the Boilers / Power Plant* *iii. Evidence regarding satisfactory operation of the Boilers / Unit from the Owner* *iv. Evidence of the details of in-house manufacturing and testing facilities for Cold Drawn Seamless Carbon steel Boiler Tubes as mentioned in Option-II c or, Evidence of the details of manufacturing and testing facilities for Cold Drawn Seamless Carbon steel Boiler Tubes as mentioned in Option-II c from the vendor with whom Tie-up agreement for supply is there. In case of multiple suppliers with whom agreement is there, credentials of all to be submitted.* *For Option-II:* *i. Copy of Valid certificate (as on the date of application) from Central Boiler Board as well-known tube maker for Carbon Steel seamless Tubes* *ii. Copies of Purchase Orders for supply of Cold Drawn Seamless Straight Carbon Steel Tubes to any Thermal Power plant having unit capacity of 200 MW or, higher capacity during last 5 years prior to the date of application* *or* *Copies of Purchase Orders for supply of Cold Drawn Seamless Straight Carbon Steel Tubes to any Boiler manufacturer manufacturing and supplying boilers for a power plant of 200 MW or, higher unit capacity during last 5 years prior to the date of application* *iii. Proof of execution of the Purchase order as mentioned in (ii) above like excise invoice, GR details and invoice copy.* *iv. Evidence of the details of manufacturing facilities for Cold Drawn Seamless Carbon steel Boiler Tubes as mentioned above.* *v. Evidence of the details of testing facilities for Cold Drawn Seamless Carbon steel Boiler Tubes as mentioned above.* <u>Applicant should mention in his letter pad under which Option they are applying for enlistment.</u> ***To be declared as qualified, an applicant has to meet all the requirements either of option-1 or those of option-2.***

D)	**Other documents to be submitted:** In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the applicant for enlistment: 1. Acceptance of specification format (see page 4 of this document) or, any comment thereof 2. Three POs of the highest executed values of **similar** work during previous five years from the date of application. Copy of Invoice / Completion certificate from the concerned buyer/s in support of successful execution of supply against the POs to be submitted. 3. Audited balance sheet including profit and loss statement for the previous three completed financial years reckoned from the date of application. In case the audited results for the preceding financial year is not available, certification of financial statements from a practicing chartered account may be submitted. In case, Applicant is not able to submit the certificate from practicing chartered Account certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the financial parameters. Further a Certificate would be required from the CEO/CFO as per the format enclosed in the application format documents stating that the financial results of the company are under audit as on the date of Application and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available 4. Any other documents in addition to the above which the applicant wants to submit.	
E)	Note-1	**Definition Similar work** (Refer to Point 2 of Row D above)**:- Supply of Boiler Straight Tubes for Thermal Power plants**
	Note-2	The executed value means Basic value of quantity of similar works / orders executed / supplied against the reference PO (also applicable to partly executed PO, as on the date of application). Where PO value is composite (i.e. including taxes etc.), the applicant should submit item wise break up of composite PO value mentioning basic PO Value, Tax details etc.

A) Details of MEG	
MEG No	48MEG-01
MEG Description	Boiler Straight Tubes (Carbon Steel)
Responsibility Centre	ERII HQ- Bhubaneswar

B) Technical Specifications

The Intended Technical specifications of Seamless Carbon Steel Boiler Tubes shall be as follows:

1) Material Code :-
2) Description of the Item:-
COLD DRAWN SEAMLESS CARBON STEEL BOILER TUBES AS PER SA210 GR.___
3) Size (OD X THK) in MM :-_____ MM X ____ MM (tolerance as per IBR/ASME)
4) Material :- SA 210 Grade _____

(Alloy Tube material composition to comply as per latest ASME code)

5) Required Length :- 4-7 meter

6) Certification Required -
i) Form III-B to be submitted by vendor
ii) All Test Certificates

7) Test Required :-
a) Dimension :- Yes
b) Material Composition By Spectrometer and PMI machine as per NTPC QP.
c) Hardness : -Yes, as per Relevant Standard.
d) Tensile Test & Elongation: - Yes, as per SA 210
e) Ultrasonic Test : - Yes, as per NTPC QP.
f) Hydraulic Test : - Required at _____ Ksc.
g) Flattening Test : - Yes, as per SA 210
H) Flaring Test : - Yes, as per SA 210

8) Heat Treatment: - To be carried out to comply properties as per SA 210 and IBR requirements and charts to be submitted to NTPC Inspector for review.

9) Identification Marking:-Each tube to be marked by stenciling as follows:

NTPC P.O No. / Size (OD X THK) /Material / Heat No. / Vendor Name / NTPC Material Code

Stenciling at both ends and at equal intervals of 1 meter.

10) End Caps: - All tubes to be cleaned and tube ends to be provided with push fit metallic end caps.

11) Colour Coding on each tube at every meter.

12) Marking:- NTPC Inspection stamps on each tube and each seal to be encircled with white paint for quick identification at site.

13) Suitable bundle of tubes to be tied together with metallic strips and covered with HDPE covers. The tube bundle to be placed in wooden crates.