

**NTPC LTD**  
**(A Government of India Enterprise)**  
**CC-OS**

**Sub: Qualifying Requirement for Vendor Enlistment for the Supply of Boiler Tube Protection Shields**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                 |                                |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| A) | MEG DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                 |                                |
|    | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MEG NO.                                                                                                                                                                                                                                                                                                                                         | 46MEG-10                       |
|    | 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MEG DESCRIPTION                                                                                                                                                                                                                                                                                                                                 | Boiler Tube Protection Shields |
|    | 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RESPONSIBILITY CENTRE                                                                                                                                                                                                                                                                                                                           | CC                             |
| B) | <p><b>Technical Criteria of QR:</b></p> <p>1. The party should be a SS / Alloy Steel items fabricator and should have at least following in-house manufacturing facilities</p> <ol style="list-style-type: none"> <li>i. Plate Shearing Machine</li> <li>ii. Hydraulic Press</li> </ol> <p>2. The party should have supplied SS protection shields / clamps / Boiler Tube Shields to any thermal power plant.</p> <p>3. The party should have their own handheld Metal Analyzer (like XRF Analyser) or Spectrometer.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                 |                                |
| C) | <p><b>Documents to be submitted against QR:</b></p> <p>QR-1: Self Declaration by the vendor including make, model of the fabrication facilities and photographs etc.</p> <p>QR-2: Purchase Order along with execution proofs like invoice etc.</p> <p>QR-3: Purchase Invoice / Latest Calibration certificate etc.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                 |                                |
| D) | <p><b>Other Documents to be submitted:</b> In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the applicants applying for enlistment: -</p> <ol style="list-style-type: none"> <li>1. Three POs of highest executed values of similar work during last five years from the date of application (PO date should not be more than 5 years old as on the date of the application) along with copy of invoice / completion certificate from the concerned buyer/s in support of successful execution of supply against POs.</li> <li>2. Audited balance sheet including profit and loss statement for the previous three completed financial years reckoned from the date of application.</li> </ol> <p>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.</p> <ol style="list-style-type: none"> <li>3. Any other document in addition to the above which the applicant wants to submit.</li> </ol> |                                                                                                                                                                                                                                                                                                                                                 |                                |
| E) | NOTE-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Similar works means: Supply of Mechanical Spares to Thermal Power Plants.                                                                                                                                                                                                                                                                       |                                |
|    | NOTE-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The executed value means the basic value of quantity of similar works executed / supplied against the reference PO (also applicable to partly executed POs as on the date of application). Where PO value is composite (i.e., including taxes etc.) the applicant to give item-wise break up of composite PO mentioning basic value, taxes etc. |                                |

## **Specification of Protection Shields/ Tube Shields**

**1. Item Description :-**

Protection Shields, Fixing Clamps etc. for thermal plant Boiler Tube as per drawing to be given at the tendering stage.

**2. Material of Construction:-**

AISI 304 / ASME SA-240 or SS of any grade as specified in the drawing / data sheet at the tendering stage.

**3. Dimensions:-**

Shape / Profile & Dimensions as per Drawings & details to be given at the tendering Stage

**4. Coating: -**

No Coating / Painting

**5. Marking:-**

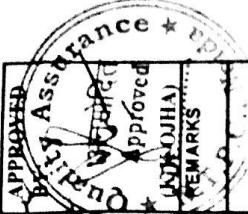
Each Shield should have hard punched or any other type permanent marking of Party's identification mark like Vendor's monogram & NTPC PO number (if specified at the tendering stage)

**6. Other points:-**

- a. Scope of Inspection in accordance with relevant NTPC approved Quality Plan
- b. One sample for each type to be given after Purchase Order placement (if specified in the Tender)
- c. Packing Requirements- as per details in the individual Tenders.




|                                                           |                                   |                              |              |                                                                          |                                         |            |                           |                        |                         |          |
|-----------------------------------------------------------|-----------------------------------|------------------------------|--------------|--------------------------------------------------------------------------|-----------------------------------------|------------|---------------------------|------------------------|-------------------------|----------|
| <b>ITEM: Boiler Tube Protection shields/ tube shields</b> |                                   | <b>STANDARD QUALITY PLAN</b> |              | QP NO.: 0000-999-QOM-S-104<br>REV. NO: 0 DATE :04.08.2018<br>PAGE 1 OF 2 | K J RAO<br>SS MISHRA<br>(K K CHAITANYA) |            |                           |                        |                         |          |
| <b>S.N.</b>                                               | <b>COMPONENT &amp; OPERATIONS</b> | <b>CHARACTERISTICS</b>       | <b>CLASS</b> | <b>TYPE OF CHECK</b>                                                     | <b>QUANTUM OF CHECK</b>                 |            | <b>REFERENCE DOCUMENT</b> | <b>ACCEPTANCE NORM</b> | <b>FORMAT OF RECORD</b> |          |
|                                                           |                                   |                              |              |                                                                          | <b>M</b>                                | <b>C/N</b> |                           |                        | <b>M</b>                | <b>C</b> |
| 1.                                                        | 2.                                | 3.                           | 4.           | 5.                                                                       | 6.                                      | 7.         | 8.                        | 9.                     | 10.                     | 11.      |



|                                                                                                                                                                 |                                                         |                                               |          |                                     |               |      |                                                                                            |             |   |   |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------|----------|-------------------------------------|---------------|------|--------------------------------------------------------------------------------------------|-------------|---|---|---|
| <b>RAW MATERIAL:</b> Raw materials for boiler tube protection shields/ tube shields shall be as per NTPC approved Drawing/Data sheet/ Technical specifications. |                                                         |                                               |          |                                     |               |      |                                                                                            |             |   |   |   |
| 1.0                                                                                                                                                             | Plates for shields, clamps & fasteners                  | Chemical composition<br>Mechanical properties | Critical | TC<br>Verification                  | 100%          | 100% | NTPC approved Drawing/Data Sheet /Technical Specifications / Relevant applicable standards | MTC         | V | P | V |
| <b>IN PROCESS INSPECTION:</b> Cutting/Folding/Forming/Welding as applicable                                                                                     |                                                         |                                               |          |                                     |               |      |                                                                                            |             |   |   |   |
| 2.0                                                                                                                                                             | Dimensions                                              | Measurement                                   | Major    | Measurement                         | 10% per shift | -    | NTPC approved Drawing                                                                      | IIR         | V | P | V |
| 2.1                                                                                                                                                             | WPS/ PQR/WPQ (If any)                                   | Procedure & Personnel qualification           | Critical | Procedure & Personnel qualification | 100%          | 100% | ASME Sec IX                                                                                | WPS/PQR/WPQ | V | P | V |
| 2.2                                                                                                                                                             |                                                         |                                               |          |                                     |               |      |                                                                                            |             |   |   |   |
| <b>FINAL INSPECTION</b>                                                                                                                                         |                                                         |                                               |          |                                     |               |      |                                                                                            |             |   |   |   |
| 3.0                                                                                                                                                             | Finished protection shields / Fixing Clamps / Fasteners | Shape / Profile<br>Dimensional                | Critical | Visual<br>Measurement               | 100%          | 100% | NTPC approved Drawing<br>Free from damage<br>NTPC approved Drawing                         | IR<br>IR    | V | P | V |

**LEGEND:** \* RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION  
 \*\* M: MANUFACTURER/SUB-SUPPLIER C: MAIN SUPPLIER, N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION AS APPROPRIATE, CHP: CUSTOMER HOLD POINT, TC: Test certificate.  
 IIR-Internal Inspection Report, IR- Inspection Report, DS- Data Sheet  
 FORMAT NO.: QS-01-QAI-P-10/F1-RI  
 ENGG. DIV. QAI

|                                                                                     |    |                                                           |    |                                                            |    |    |    |                                                                             |               |                                                                                                    |                    |                                                                                                    |                  |
|-------------------------------------------------------------------------------------|----|-----------------------------------------------------------|----|------------------------------------------------------------|----|----|----|-----------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------|------------------|
|  |    | <b>ITEM: Boiler Tube Protection shields/ tube shields</b> |    | <h1 style="text-align: center;">STANDARD QUALITY PLAN</h1> |    |    |    | OP NO.: 0000-999-QOM-S-104<br>REV. NO: 0    DATE :04.08.2018<br>PAGE 2 OF 2 |               | APPROVED BY: <i>Jagannathan</i><br>S.S. MISHRA<br>(N.K. CHATTOPADHYAY) (N.A. GUHA)<br>AGENCY: NTPC |                    | APPROVED BY: <i>Jagannathan</i><br>S.S. MISHRA<br>(N.K. CHATTOPADHYAY) (N.A. GUHA)<br>AGENCY: NTPC |                  |
|                                                                                     |    |                                                           |    |                                                            |    |    |    | CLASS                                                                       | TYPE OF CHECK | QUANTUM OF CHECK                                                                                   | REFERENCE DOCUMENT | ACCEPTANCE NORM                                                                                    | FORMAT OF RECORD |
| 1.                                                                                  | 2. | 3.                                                        | 4. | 5.                                                         | 6. | 7. | 8. | 9.                                                                          | 10.           | 11.                                                                                                |                    |                                                                                                    |                  |

| S.N. | COMPONENT & OPERATIONS                                  | CHARACTERISTICS    | CLASS    | TYPE OF CHECK      | QUANTUM OF CHECK          | REFERENCE DOCUMENT                                                                                   | ACCEPTANCE NORM | FORMAT OF RECORD | M | C | N | D |
|------|---------------------------------------------------------|--------------------|----------|--------------------|---------------------------|------------------------------------------------------------------------------------------------------|-----------------|------------------|---|---|---|---|
| 3.2  | Finished protection shields / Fixing Clamps / Fasteners | Grade verification | Critical | PMI / Spectrometry | 100%<br>Min 10 Nos / type | NTPC approved Drawing/Data Sheet / Technical Specifications / Relevant applicable codes or standards | IR              | IR               | ✓ | P | W | W |
| 3.3  | Data compilation                                        | Verification       | Critical | Verification       | 100%                      | Completeness of required documents                                                                   | Records         | Records          | ✓ | P | V | V |

**Note:**

- (1) All testing facilities shall be arranged by the vendor during inspection. In case of non-availability of any test facility at the vendor's works, samples identified by NTPC representative shall be got tested by vendor at NTPC accepted third party laboratories.
- (2) Surveillance checks/tests may be carried out on the finished product received at site for grade verification of the material.


**LEGEND:** \* RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION  
 \*\* M: MANUFACTURER/SUB-SUPPLIER    C: MAIN SUPPLIER,    N: NTPC    P: PERFORM    W: WITNESS AND    V: VERIFICATION AS APPROPRIATE,    CHF: CUSTOMER HOLD POINT,    TC-Test certificate,  
 IIR-Internal Inspection Report,    IR- Inspection Report,    DS- Data Sheet

**FORMAT NO.: QS-01-QAI-P-10/F1-R1**  
**ENGG. DIV./QA&I**