

OUTSOURCING DEPARTMENT

ENQUIRY NO. OS/ACF/006
DATED: 17-04-07



M/s.

ENQUIRY FOR SUPPLY OF STRUCTURES, COLUMNS AND DUCTS FOR BOILER PROJECTS AS PER BHEL ENGINEERING DRAWINGS, QUALITY DOCUMENTS AND TECHNICAL SPECIFICATION.

TENDER OPENING DATE: **09-05-07** AT **14.30 HRS.**

Gentlemen,

Sub: Supply of Structures, Columns and Ducts with vendor's material.

0.0 INTRODUCTION:

We have pleasure in sending this Tender Enquiry for supply of Structures, Columns and Ducts (Boiler Components) as per BHEL Drawings, Quality documents with raw materials and components procured by vendor. The vendors shall quote their rate for the Schedules as per the **ANNEXURE "T"**. In this regard, please note the following essential features and specific guidelines:

1.0 ESSENTIAL FEATURE AND SPECIFIC GUIDELINES:

1.1 The broad scope of work is indicated at 2.0. The actual drawings of the Project or representative drawings of a similar Project are available at our end in a CD. The interested parties can get the tender documents from the Office of DGM/ACF/OS,

First Floor, Bldg. 79, BHEL / Tiruchy-14 on all working days by remitting Rs.1,125/- towards the cost of tender document either by Cash (at Cash Office at 24 Bldg.) or A/C. Payee Demand Draft in favour of M/s. Bharat Heavy Electricals Limited, Tiruchy-14. Money Orders, Cheques and Postal Orders will not be accepted.

1.2 It will be the vendor's responsibility to ensure that the Tender Documents, Drawings, Quality Documents and related conditions are studied before submitting the offer. The Quality Work instructions (QWIs) are indicated as **Annexure "B"**. The Vendor shall have to study the drawings in detail for understanding the Scope of Work and the processes involved. Any Technical Clarification required can be sought in person as well as by e-mail before the scheduled tender opening date.

1.3 Vendors have to procure raw materials / components / consumables as per the TDC:0:313 specification indicated in the drawings or elsewhere; from the approved sources as detailed in the **Annexure "A", "C" & "D"**. The raw materials / components / consumables have to be procured with relevant TCs in original and these are to be produced at the time of inspection.

1.4 While quoting, the vendor shall ensure to quote their rate inclusive of raw material / components and painting; as per our Standard Quality Plan.

1.5 The rate quoted shall be firm and it will be per MT (Metric Tonne) as applicable for supply of these Boiler Components. The rate shall not be subject to any variation or escalation and shall remain firm for a period of one year from the date of finalisation of tender. The Vendor shall furnish the details of applicable statutory levies if any, separately.

1.6 The Vendor shall have to submit their offer as per “ANNEXURE “T” in a sealed cover. No deviation in the tender conditions will be entertained and BHEL reserves the right to reject such offers.

1.7 The tender is in two parts. One part consisting of commercial and technical conditions along with Quality Plan for supply in line with our Standard quality Plan. Techno – Commercial bid and price bid are to be submitted in separate sealed covers. In addition to technical and commercial conditions, vendors have to submit the filled in Supplier Registration Forms along-with the technical bid. Based on this and other conditions, as well as capacity and capability, vendors will be short-listed. Both these covers are to be put in a single cover duly super scribing the Enquiry Number. This will be opened on 09-05-07 at 14.30 HRS hrs; and based on the acceptance of technical bid only, the price bid of the said vendors will be opened on a suitable date with due intimation.

Following will be criteria for short-listing the vendors

- (1) Evaluation of the Supplier Registration Forms
- (2) Availability of minimum manufacturing, handling, testing and measuring facilities as detailed in the Supplier Registration Form.
- (3) BHEL will have the right for spot assessment of the facilities.
- (4) Vendors already registered with BHEL / Tiruchy for conversion job with free issue materials will be considered for this tender based on the following undertaking to be submitted along with the technical bid.

“In case we, M/s..... becomes a successful bidder for this tender for supply of Boiler Components with our own materials, we will not undertake / execute orders of BHEL / Tiruchy under conversion route till the completion of the contract period”.

THE OTHER DETAILS OF THE ENQUIRY ARE AS FOLLOWS:

2.0 SCOPE:

The quantum of work is supply of around 50,000 MT of General Fabrication Structures, Auto Welded Beams & Boxes; Columns including assembly and Ducts. The tentative break up of quantum of work Product Group Main Assembly wise (PGMA) along with description for a typical 250 MW and 500 MW is enclosed at [Annexure “L” & “M”](#). It is to be noted that the quantity at [Annexure “L” & “M”](#) is only indicative and the actual quantum under each PGMA may vary and will depend upon the Project requirement and corresponding drawings released by Engineering. The PGMA and Rate Schedule break up are indicated in these Annexures. These have been arrived at for a typical 250 MW / 500 MW. The Work Content of each Rate Schedule is detailed in [Annexure “N”](#). These are broad descriptions. However, the work has to be executed as per the drawings and Group Manufacturing Specification (GMS) released by BHEL for each PGMA. Vendors have to study the typical drawings available in the CD and quote their rates inclusive of raw materials, consumables, components procured from approved sources, fabrication as per BHEL Drawings, Quality Plan and Specification. Some of the Projects require surface preparation by blast cleaning before application of paints. For such of these cases, vendors have to quote the rate per MT for surface preparation by blasting as required in [Annexure “T”](#).

Quotations are invited for supply of Boiler components for 250 MW and 500 MW under the following categories:

- (a) General Fabrication Structures
- (b) Auto Welded Beams & Boxes
- (c) Columns including assembly

(d) Duct

BHEL proposes to order on the successful Bidder/s PGMA wise for supply of above items. The details of quantity and Projects planned are as per Annexure “H”. The quantity and projects are only indicative. However, these might vary as and when the documents get released during the course of the execution of the Projects. Each PGMA will have the work content as detailed in the **Annexure “N”**, which are only indicative and not exhaustive. Detailed scope is as under:

- 2.1 Raw materials and consumables required for supply including all consumables for welding and Painting as stipulated in the drawings / QWIs / Welding procedures. Stencilling as per Clauses 6.0 referred below:
- 2.2 All charges of MPI/LPI & other NDT wherever called for in the Drawings/QWIs.
- 2.3 The rate shall be FIRM and not subject to any variation / escalation on any account for One year from the date of Contract to be entered into.
- 2.4 The weights of items indicated in the Drawing / GMS as per standard section weights. However, this might vary depending on the raw material. For purpose of billing as well as transportation weight indicated in the GMS is final and binding. Loading of finished goods on Truck / Trailer for safe transportation including lashing wherever required is in the scope of the vendor. Despatch of finished goods is to be made BY ROAD as per despatch instructions to be issued by BHEL from time to time. Transit insurance is in the scope of BHEL. Vendors have to quote their rate towards freight per MT / KM. The distance of the Project Site / between two places for freight payment will be determined by the shortest route arrived at with reference to Road Map of India published by survey of India and Motoring Guide (Latest Edition).

2.5 Any revision in the documents by our Engineering is to be carried out without any extra cost.

2.6 Ducts have to be supplied as per the relevant drawings and as detailed in the duct manual.

2.7 Handling equipments for movement of finished goods.

2.8 All indirect materials fall within the scope of the Vendor for completion of the jobs.

2.9 BHEL does not guarantee ordering of any minimum quantity.

2.10 TENDER EVALUATION AND ORDERING:

2.10.1 Tender will be evaluated for competitiveness for the individual items under **Annexure-I**. Vendors have to quote for transportation of these boiler components at rate / MT / KM. BHEL reserves the right to decide to transport these finished goods either to various Project Sites OR to Tiruchy as the case may be. ***Ordering for supply of these items and freight rate / KM / MT with or without blast cleaning form an integral part of the quotation.*** Ordering will be based on the following formula:

$$\frac{\text{BASE RATE PER MT (FOR EACH SCHEDULE) + FREIGHT RATE}}{\text{MT / KM X DISTANCE}}$$

It may please be noted that the distance will be dependent on the Project to which materials are to be sent and will be calculated as per the Distance chart (available with our Stores) on case-to-case basis.

2.10.2 Considering the quantum of 50,000 MT to be ordered and in order to meet the customer requirement; Ordering for supply of these Boiler Components will be based on criticality of the items, nature of the items, capacity and capability of vendor and consistent performance of the vendor/s. As the quantum to be

completed is high and delivery requirements are concurrent for various Projects, it is proposed to counter offer the acceptable L1 rate to the other competitive vendors. L1 vendor will be ordered to the maximum declared monthly capacity comparable to BHEL, in each schedule as detailed in Annexure “T”.

3.0 RATES:

Please quote your FIRM rate per MT inclusive of Raw materials, Consumables for supply of the Boiler Structures, Auto Weld, Columns and Ducts as per our Drawings and specifications. Also the freight rate / KM / MT and rate for blast cleaning per MT are to be quoted. These rates are to be firm for a period of one year from the date of finalisation of the tender.

4.0 QUALITY PLAN:

4.1 Raw materials are to be procured as per our technical delivery conditions specified vide TDC:0:313 (latest Revision)

4.2 Raw materials are to be procured from BHEL approved sources only.

4.3 Incoming materials are to be verified by the vendors based on established sampling plan.

4.4 The system for storing and issuing materials shall be available with vendors for easy traceability.

4.5 Periodic audit of system of purchasing, storing and issue, etc. will have to be carried out by the vendors. BHEL will also audit the same.

4.6 Performance monitoring of the supplier will be carried out periodically. This will be one of the criteria for ordering.

4.7 Supply of components is to be as per our Standard Quality Plan as per Annexure “B”.

5.0 DELIVERY TERMS:

FOR Destination basis. The finished components are either to be despatched as per the despatch instruction issued by BHEL from time to time. **BHEL reserves the right to issue instruction for despatch to Project Site/s OR Tiruchy.** Vendors have to arrange for despatch of these finished goods to Project Site or Trichy as the case may be either in Trucks OR Trailer for safe delivery through registered transport carriers. Safe delivery of the goods to Project authorities is in the scope of the vendor. As soon as the despatches are made, vendors have to fax copy of LR, DC, IR & Excise Invoice. One such set has also be couriered to BHEL. Vendor has to arrange for acknowledgment of the finished goods in good condition after due verification. The original acknowledgment has to be submitted to BHEL along-with the Invoice. However, a copy of the acknowledgment is to be faxed or couriered to BHEL immediately on receipt.

6.0 PAINTING AND STENCILING:

The finished product shall be cleaned as per the approved Quality Plan (including blast cleaning as necessitated for the Project) and painted with primer and finish paint as per SIP:PP:22 paints procured from our approved paint manufacturers list vide **Annexure “C”**. The Project name, number off, DU Number, Weight, and Vendor Code number shall be legibly stenciled for identification and despatch as may be advised. Identification on Ducts shall be made on the Walls and Flanges / Angles. Match marks on Duct Walls shall be hard punched and stenciled. Identification of Structures shall be hard punched and stenciled. Vendor Code number alone shall be punched using letter punch and bordered suitably for

identification. Machined surfaces shall be protected with rust preventive oil. Weldable areas are to be applied with weldable primer.

7.0 RAW MATERIAL REQUIREMENT:

Raw materials are to be procured from the approved sources only as indicated in the [Annexure “A”](#). Raw materials and paints are to be procured with relevant TC and these have to be submitted in original during inspection. Any test both destructive and non-destructive if required will have to be carried out by the vendors at their own cost. All such reports in original will have to be submitted during inspection.

- 7.1 The weights in Group Manufacturing Specification (GMS) will be the basis for requirement of the raw materials for fabrication. However vendors have to take into consideration suitably a process allowance over and above this for procurement of raw materials. Changes in the weight due to material substitution will be carried out by temporary DCN. GMS / PO will not be revised on account of this. However, weight changes due to design change and errors in GMS / PO / BOM over and above + (OR) – 5% of the weight of PO will only necessitate revision in PO.

8.0 PROGRESS REPORT:

The vendor shall from time to time mail their completion plan and progress report as may be required by BHEL. The submission, receipt and acceptance of such reports shall not prejudice the rights of BHEL, under the contract nor shall operate as an estoppel against BHEL, merely by reason of the fact that they have not taken notice of or objected to any information contained in such reports. Action as deemed fit would be taken if the progress of work is not satisfactory.

9.0 TECHNICAL REQUIREMENTS:

- 9.1 Supply of Structures, Auto Weld, Columns and Ducts shall strictly conform to dimensions and tolerances indicated in the Drawings (including assembly drawings), Quality Plan and Duct Manual. Care must be taken to strictly adhere to the “NOTE” given in the drawings and Duct Manual. They must ensure that correct dimensions and deviations, if any, are recorded properly in the Dimension Record books and the same shall be made available to BHEL Officials or their authorized agencies. Any correction or revisions in the drawings are to be carried out by the vendor.
- 9.2 Welding to be carried out by Qualified Welder and as per BHEL Approved Welding Procedure Specification. The welder qualification and welding procedure (as per relevant SIP) shall have to be done by QC / BHEL or by their authorized appointed agency. The cost of any approval on this account is in the scope of vendor.**
- 9.3 Only the right kind of electrodes shall be used as called for in the Drawings.
- 9.4 Any other work carried out other than the requirements of Drawings / QWIs shall have the prior approval of BHEL.
- 9.5 Adequate facilities like welding equipments, baking oven, handling facilities and measuring instruments duly calibrated as called for by us must be available. All the above equipments must be under working condition and the same is made available for verification by BHEL Officials or their authorized agents.
- 9.6 The instruments / gauges are to be calibrated periodically as follows:

Sl. No.	Type	Periodicity
01)	Measuring Instruments / Gauges	One Year
02)	Limit Gauges (E.g. Plug / Ring)	One Year
03)	Temperature, Pressure Gauges	6 Months
04)	Measuring Steel Tapes	Once

Calibration status shall be displayed at the sub contractor's Works in a conspicuous location. Calibration can be performed at any Government approved labs traceable to national standards.

For Duct fabrication, requisite handling and testing facilities as specified by BHEL from time to time shall be available with the vendor.

10.0 INSPECTION:

10.1 Inspection shall be by our Quality Control Department and / or by our customers and / or by an appointed agency or persons authorized by us. Vendor shall provide all facilities and equipments, calibrated instruments and standard gauges required for inspection free of cost.

10.2 The works are deemed to have been completed and accepted, only after the inspector / Agency raises Inspection Report (IR). IR has to be raised as per BHEL format.

11.0 PAYMENT:

11.1 Invoices in Triplicate shall be raised after completion of Purchase Order and as per the agreed rate with applicable taxes and duties as agreed upon.

11.2 The rate for supply of Structures, Auto Weld, Columns & Ducts as per BHEL Drawing & specification is for per MT as detailed in the GMS. However, owing to revision in drawing / GMS, if the effect of change is over (+) OR (-) 5% of the material weight for the PO, the cost for such a difference in the net weight shall be paid or recovered accordingly.

11.3 100% payment shall be made against invoices supported by IR from our Inspector and / or Authorised agency along with a copy of acknowledged Lorry Way Bill & DCs for having received the finished goods in good condition after due verification. Vendors have to co-ordinate with the customer / site authorities for

obtaining acknowledgement. Excise Duty invoices are to be generated for the despatches made and a copy of the Excise Invoice is to be enclosed to the invoice. While raising the Excise Invoice, vendors have to ensure that due CENVAT credit has been given for all the input raw materials and BHEL is charged ED only for the supply. Payment will be released by Banker's Cheque within 45 days of the receipt of Invoice with all requisite documents in original.

12.0 GUARANTEE:

12.1 The vendor shall warrant that the supply comply fully with the drawings and other technical conditions. If the supplies are found defective owing to faulty raw material / workmanship / incomplete work within a period of eighteen months from the date of despatch, the vendor shall make good of it / replace the same free of cost. If any re-work carried out by our Site on materials supplied, the cost of the re-work will be deducted from the running vendor bills. Alternatively, the rework / replacement charges will be recovered. For this, vendor has to furnish Performance Bank Guarantee (PBG) as per the attached format vide **“Annexure ‘J’** before release of the Purchase order. PBG is to be issued for 10% value of the Order.

13.0 LIQUIDATED DAMAGES / PENALTY & RISK PURCHASE:

Timely delivery is the essence of the Contract. The finished goods will have to be delivered as per the date stipulated in the Purchase Order. Request for delivery extension if any is to be made along with each Invoice. No request for refund of liquidated damages will be entertained. Where the vendor supplied the finished goods beyond the delivery period specified, liquidated damages at the rate of ½% of the value of the supplies delayed for each week or part thereof will be levied subject to a maximum of 15% value of the particular delayed or undelivered

goods in that Purchase Order without prejudice to any other relief or compensation to BHEL, under any other condition of the contract. Further, BHEL, will get these items ordered elsewhere without the notice of the vendor; on their account and at the risk of the vendor, the supplies not so delivered without cancelling the contract in respect of instalments of supplies not yet due for delivery or cancel the contract or a portion thereof and if so desired, order elsewhere at the risk and cost of the vendor. The supplier shall be liable for any loss, which BHEL may sustain by reason of such risk purchases in addition to liquidated damages as mentioned above.

13.1 **Action and Compensation in case of Bad Workmanship**

If any work has been executed with unsound, imperfect or bad workmanship or with materials of inferior quality, the fabricator shall on demand in writing from BHEL specifying the work, materials/articles complained of, notwithstanding that the same may have been passed, certified and paid for, forthwith, rectify the work so specified in whole or in part as the case may require, at their own cost and in the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk and expense of the vendor

13.2 BHEL shall have general supervision and direction over the work. BHEL has the authority to stop the work, whenever such stoppage may be necessary to ensure the proper execution of the contract. BHEL shall also have the authority to reject all the work, which does not conform to the specification, to direct the application of forces to any portion of the work as, in their judgement is required, and order the force increased or diminished and to decide the questions, which arise in the execution of the work. BHEL reserves the right to suspend the work or part thereof at any time and no claim whatsoever on this account will be entertained.

In case of any dispute, the fabricator may appeal to BHEL whose decision shall be final and binding

14.0 SUBLETTING

The vendor shall not sublet or assign this work or any part thereof without the written permission of BHEL. In the event of the vendor subletting or assigning this work or any part thereof without such permission, BHEL shall be entitled to cancel the Order and execute the same elsewhere at the risk and cost of the vendor and the vendor shall be liable for any loss or damage which BHEL may sustain in consequence of or arising out of such supplies elsewhere and also cancellation of registration or temporary suspension.

15.0 TAXES:

15.1 Income Tax deduction at source as applicable in the IT Act from time to time and will be made on the value of the bills in the absence of Income Tax Exemption Certificate from the concerned IT officer.

15.2 If any Sales Tax is payable as extra to the quoted price, it is to be specifically stated in the quotation along with VAT / CST No. failing which, BHEL will not be liable for reimbursement of Sales Tax.

15.3 Duplicate copy of the Invoice meant for the transporter should accompany the material as stipulated under CE Rules 52A and 172C OR 57CE.

15.4 EXCISE DUTY:

Vendor should get themselves registered with Excise / VAT / Sales Tax / Service Tax authorities as the case may be in the State where they are carrying out fabrication. The CENVAT for the input raw materials / consumables / components should be availed by the vendors and it has to be taken into account while quoting the rates.

16.0 OTHER CONDITIONS:

16.1 Partnership firms should have the latest Form-A (Rule 5) Declaration issued by Registrar of Firms and the copy of the same should be produced at the time of signing of the Contract.

16.2 Proprietor / One of the Partners must be a technically qualified person.

16.3 Successful bidder should maintain an Office at Tiruchy for the purpose of co-ordination with regard to drawings and technical clarification, inspection calls, despatch clearance, etc.

16.4 In addition to the above, our Standard General Conditions **Annexure “F”** shall also apply.

16.5 All the Statutory Obligations such as ESI, PF, Labour Acts, Factories Act, Service Tax, etc. will have to be taken care of by the vendor. BHEL will have no liability on them. Notwithstanding the above, if any demand notice is served by the concerned Statutory Authorities for recovery of any of their dues on BHEL, the same would be paid without notice to the vendor and recovered as a due from any pending / future bills.

16.6 All Safety Precautions and use of Safety Equipments are to be followed while carrying out the fabrication and despatch of the same. The vendor must have proper tools and handling equipments. There should always be a responsible person available to oversee the operation and compliance of safety regulation etc. If any non-compliance with respect to proper safety conditions/requirements, BHEL may withhold visit/inspection, instruct stoppage of work till such time the desired safety requirements/conditions are met with.

16.7 Vendors are required to equip themselves with communication facilities like Telephone, Fax and e-mail, etc. BHEL will have the right not to consider those vendors who do not equip themselves with these facilities.

17.0 DOCUMENTS:

All the documents of BHEL (inclusive of Drawings, GMS and Standards) made available to the vendor should be kept in strict confidence and under no circumstance be made available to others or allow others to make use of them. Such documents should be returned to us after completion. This secrecy clause is binding on the employees of the vendors also. Any contravention will be viewed very seriously.

18.0 ENCLOSURES:

Sl. No.	Annexure		No. of Pages
1)	Annexure-A	Approved Raw Material Suppliers	4
2)	Annexure-B	Quality Work Instructions	1
3)	Annexure-C	Approved List of Vendors for paints	1
4)	Annexure-D	Approved List of Electrodes and Vendors	1
5)	Annexure-E	Special Instructions to Tenderers	2
6)	Annexure-F	General conditions of Contract	3
7)	Annexure-G	List of Typical Drawing	1
8)	Annexure-H	List of Projects with Quantities for each Schedule of the tender	1
9)	Annexure-I	Quotation Format	1
10)	Annexure-J	Performance Guarantee format	2
11)	Annexure-K	Major Raw Materials	12
12)	Annexure-L	Applicable PGMA's with Rate Schedules for a typical 250 MW	3
13)	Annexure-M	Applicable PGMA's with Rate Schedules for a typical 500 MW	4
14)	Annexure-N	Rate Schedule Work content	6
15)	Annexure-O	Supplier Registration form	24
16)	Annexure-P	Score Sheet	6

19.0 The Tenderer shall furnish a certificate along with the offer stating that the Enquiry Terms and conditions have been fully read and understood and the prices quoted are in accordance with the same.

20.0 Lowest offer need not be the rate acceptable to BHEL. BHEL reserves the right to

- i) Reject the offer which do not meet their technical and commercial conditions
- ii) Negotiation with the Tenderer will be held as per CVC guidelines
- iii) Distribute the requirements to more than one vendor at the lowest acceptable rate.
- iv) To reject any or all the Tenderers either in full or part thereof or short close the tender at their discretion without assigning any reason.

THE TENDER DOCUMENTS IS HOSTED IN OUR WEB SITE www.bhel.com AND <http://govtenders.nic.in>. THE OFFER SHOULD BE SUBMITTED IN A SEALED COVER WITH TECHNICAL BID AND PRICE BID IN SEPARATE COVERS SUPERSCRIBING ON THE ENVELOPE THE TENDER ENQUIRY REFERENCE AND THE DATE OF OPENING OF THE TENDER, SO AS TO REACH **“OUTSOURCING DEPARTMENT”, FIRST FLOOR, 79 BUILDING, BHEL, TIRUCHY-620 014** ON OR BEFORE **09-05-07** AT **14.30 HRS.**

PLEASE NOTE THAT BHEL WILL NOT BE RESPONSIBLE FOR ANY DELAY IN RECEIPT OF THE TENDERS UNDER ANY CIRCUMSTANCES.

For and on behalf of
BHARAT HEAVY ELECTRICALS LIMITED



DGM/ACF/OUTSOURCING
BHEL / TIRUCHY – 14.
vsridharan@bheltry.co.in

ANNEXURE – B**QUALILTY WORK INSTRUCTIONS**

SUPPLY OF STRUCTURES, AUTO WELD, COLUMNS & DUCTS FOR 250 & 500 MW BOILERS				
SL. NO.	TYPE OF DOCUMENT	REF. NO.	REVISION	DESCRIPTION
1.	Quality Plan	SQP:NP:01	03	BOILER DUCTS & HOPPERS.
2.	Quality Control Procedure	QCP: 002	02	Non-Pressure part work.
3.	Standard Inspection Procedure	SIP:NP:07	01	Welding qualification for Structural application.
4	Standard Inspection Procedure	SIP:NP:05	01	Procedures for Kerosene Leak test
5	Standard Inspection Procedure	SIP:NP:06	01	Procedures for visual inspection of non-pressure parts
6.	Quality Work Instruction	SIP: PP: 22	03 (Amend. A1 01.12.04)	Procedure for Surface Preparation and Painting
7.	Raw material TDC	TDC:0:313	00	Raw material requirements for manufacture of Columns and other structural components by sub Contractors with vendor's materials.
8.	Quality Plan	SQP:NP:06	02	Columns and ceiling girders
9.	Standard Inspection Procedure	SIP:NP:02	02	Trial assembly of columns ceilings girders monorail and runway beams
10.	Quality plan	SQP:NP:07	02	General Structurals
11.	Standard Inspection Procedure	SIP:NP:09	01	Trial assembly of diagonal bracing

ANNEXURE – C

APPROVED LIST OF VENDORS FOR PAINTS

Rust Preventive Fluid: 1) Plastipeel Chemical, Thane, 2) Sundaram Paints, Thanjavur
3) Western India Paint & Colour Company, Chennai

Specific Paints: Conventional paints including 1) Red Oxide Zinc Phosphate (to IS: 12744) 2) Synthetic Enamel (IS: 2932/93), 3) Zinc Chrome Yellow Primer (IS: 104) 4) Zinc Chrome Yellow Primer - Dip Coat (to BHEL's specification: PR: CHEM:09:03 latest), 5) General purpose Aluminium paint (IS: 2339).

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| 01. M/s Asian Paint (I) Ltd. | 02. M/s Berger Paints (I) Ltd. |
| 03. M/s Bombay Paints Ltd. | 04. M/s Goodlass & Nerolac Paints Ltd |
| 05. M/s Jenson & Nicholson (I) Ltd. | 06. M/s Shalimar Paints Ltd. |
| 07. M/s Wipco (P) Ltd. | 08. M/s Sundaram Paints |
| 09. M/s Nova Paints | |

Industrial Paints including (1) Epoxy base Primer, intermediate (including M10) and finish coat paints, (2) Chlorinated Rubber based (Primer and Finish) paints, (3) Polyurethane (Aliphatic and Aromatics) - Polyamide cured) finish paints,
(4) Mastic paints, (5) Epoxy Zinc Rich Primer, (6) Ethyl Zinc Silicate and (7) Wash Primers.

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|---|--|
| 01. M/s Asian Paint (I) Ltd. | 02. M/s Berger Paints (I) Ltd. |
| 03. M/s Bombay Paints Ltd. | 04. M/s CDC Carboline |
| 05. M/s Jenson & Nicholson (I) Ltd. | 06. M/s Shalimar Paints Ltd. |
| 07. M/s Goodlass Nerolac Paints Ltd. | 08. M/s Chemguard, Chennai (for Amer coat brand paints only) |
| 09. M/s. Courtaulds Coatings & Sealants (I) Pvt Ltd., Bangalore | (for international brand of paints) |

NOTE: As far as possible, for all industrial paints, primers, intermediate and finish paints shall be procured (and used) from the same supplier to accommodate compatability with each other.

APPROVED LIST OF ELECTRODES AND VENDORS

SL. NO.	BOILER PLANT SPECIFICATION	BRAND NAME OF ELECTRODES	MANUFACTURING COMPANY
I) CS ELECTRODES			
01	E 6013	OVER CORD NORMA STEELON STD SUNARC X 19 ESAB Ferro speed Plus ELETRA - 6 SPEED ARC MAIL ARC - 13 R REGULAR-S SUNLINE-27 VATSARC-19 RASI E 6013 AARVEE GENERAL DK 13 MAGNA-6 GEECON PINK	ADVANI D & H SECHERON MODI ARC AHURA WELDING ESAB INDIA FUSION ENGG. VOLT ARC MAILAN METALLOGEN HANOVAR JEEVA ELEC SOLARC RASI ELEC SRI AARVEE DWEKAM, CHENNAI MAGNA ENGG PRODUCTS GENERAL ELECTRODES & EQUIPMENTS P LTD
02	E 6013 (ATTEST)	OVERCORD S MEDIO STEELON - ULTRA ESAB VORDIAN	ADVANI D & H SECHERON MODI ARC ESAB INDIA LTD.
03	E 7016	ESAB - 56 UNIVERSE INDOTHERME	ESAB INDIA LTD. ADVANI D & H SECHERON
04	E 7018	SUPER CITO SUPRATHERME MODI - 7018 ESAB - 36H SUNARC Ferrod No.3 BHEL - 7018 SUPERARC MAIL ARC-18 ULTIMATE-18 SUPRADYNE RASI E7018 LH AARVEE SUPREME DK 18 MAGNA-8 SUPER LH GRICON GREEN ANAND THERM ROYAL THERM	ADVANI D & H SECHERON MODI ARC ESAB INDIA LTD. AHURA WELDING BHEL VOLT ARC MAILAN HANOVAR SOLARC RASI ELEC SRI AARVEE DWEKAM KEMTRODE P LTD, MAGNA ENGG PRODUCTS D&H ELECTRODES GENERAL ELECTRODES & EQUIPMENT P LTD ANAND ARC ELECTORDE P LTD ROYAL ARC ELECTRODE P LTD
II) AS ELECTRODES			
01	E 8013 B2	CROMOCORD Ti MEDIO - CrMo	ADVANI D & H SECHERON
02	E 8018 B2	CROMOCORD CROMOTHERME 1 MODI - 8018 - B2	ADVANI D & H SECHERON MODI ARC
03	E 9013 B3	CROMOCORD Cti MEDIO - 2Cr Mo	ADVANI D & H SECHERON
04	E9018 B3	CROMOCORD C CHROMOTHERME-2 MODI - 9018 - B3	ADVANI D & H SECHERON MODI ARC
III) GMAW (C02) WELDING			
		CITOFIL ER 70S-6	ADVANI MARUTHIWELD LTD GURGOAN

SPECIAL INSTRUCTIONS TO TENDERERS

IF DESIRED, TENDERER MAY DEPUTE THEIR REPRESENTATIVE FOR 'TENDER OPENING' WITH PROPER AUTHORISATION
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1. All the prices shall be given both in words and figures. In case of any difference between the two, the offer will be rejected.
2. Offers shall be duly signed by a legally authorised principal officer(s) of the Firm and by affixing the Rubber Stamp.
3. The tenderers shall keep the offer valid for a minimum period of 6 (six) months from the closing date of the tender.
4. The tenderer shall acquaint himself with the conditions / limitations and official regulations under which or conforming to which the jobs are to be performed and shall examine carefully all the information as may be furnished to them in writing from time to time.
5. The tenderer shall acquaint himself with applicable Acts.
6. No deviation or change from the tender conditions will be entertained and BHEL has the right to reject such tenders.
7. BHEL reserves the right to restrict to the lowest bidder for negotiation. BHEL also reserves the right to distribute the work to one or more Vendors for award of contract as required.
8. Tenderers are requested to indicate their reasonable offers and it may please be noted that offers with unreasonable/abnormal rates are liable for total rejection at the discretion of BHEL without assigning any reason thereof.
9. Insertions, postscripts, additions and alterations in the tender shall not be recognised unless received prior to the closing date of the tender and in time and confirmed by the tenderer's signature.
10. Tenderer shall bear all cost incidental to preparation, submission and negotiations against the tender.
11. Offers containing corrections or alterations in the documents are liable to be rejected. Any correction made by the tenderer(s)/his//her/their Representative, must be authenticated by the tenderer who has signed the original offer. The tenderer shall authenticate all pages of the offer by putting his initials or the Firm's official rubber stamp.

12. In case of any discrepancy, the decision of BHEL in writing is final, binding and conclusive for the purpose of finalisation of this tender.
13. **A separate certificate is to be attached with the offer to the effect that the Enquiry terms and conditions have been fully read and understood and the prices quoted are in accordance with the same.**
14. Whether the tender is accepted or not, tenderer shall not be entitled to claim any costs, charges, expenses incidental or incurred by him through or in connection with the submission of the Tender even if BHEL withdraws the Tender before or after the receipt of the offers.
15. As a policy BHEL is not registering any power of attorney issued by contractors/suppliers in favour of their bank for the collection of invoice amounts on behalf of contractors/suppliers and merely because BHEL had acted upon any such request by the party or their bankers does not constitute any legal right or binding on BHEL for any acts of omissions and commissions or failure to act upon it or for any payment made directly to the party. If any banker includes BHEL also as a party to any such dispute between the banker and the party, all legal and incidental expenses thereof will be recovered from the concerned parties only.
16. Tenderers contacted in this tender do not automatically qualify for consideration just because they are found to be the lowest in the Tender. BHEL reserves the right to reject any offers without assigning any reasons.
17. **Conditional tenders are liable to be rejected.**



AN ISO 9001
COMPANY

BHARAT HEAVY ELECTRICALS LIMITED
(A GOVT. OF INDIA UNDERTAKING)
HIGH PRESSURE BOILER PLANT, TIRUCHIRAPPALLI - 620 014
DEPT: OUTSOURCING

(OFF) 91 (0431) 2574629
0517

FAX: 91 (0431) 252

E-MAIL: vsridharan@bheltry.co.in

ANNEXURE - F
PAGE 1

GENERAL CONDITIONS OF CONTRACT

I DEFINITIONS

Throughout these conditions and in the specifications "THE CONTRACTEE" means the Bharat Heavy Electricals Limited, acting through the Dy. General Manager/OUT SOURCING, Tituchirapalli-14, unless the context otherwise provides "THE CONTRACTOR" means the person, firm or company with whom the order for Structural work is placed and shall be deemed to include the Contractor's successors (approved by the Contractee) representatives, heirs, executors and administrators as the case may be unless excluded by the terms of the Contract. "DRAWINGS" means the drawings exhibited or provided for the guidance of the Contractor.

II EXECUTION

The whole contract is to be executed in the most approved substantial and workman like manner to the entire satisfaction of the Contractee, or the Inspecting Officer who shall have power to reject any of the Structurals of which he may disapprove; and his decision thereon and any question as to the true intent and meaning of the specifications of drawing or of the work necessary for the proper completion of the contract, shall be final and conclusive. The contractee may require alteration if any to be made during the progress of work and should these alterations be such that either party to the contract considers an alteration in charges justified such alteration shall not be carried out until amended cost have been submitted by contractor and accepted by the Contractee. Should the Contractor proceed to work without obtaining the consent of the Contractee in writing to an amended cost of work the Contractor shall be deemed to have agreed to execute the work at such charges as may be considered reasonable by the Contractee.

III FORCE MAJEURE

If any time during the continuance of this Contract the performance in whole or part by either part of any obligation under this contract shall be prevented or delayed by reasons of war, hostilities, acts of public enemy, civil, commotions, sabotage, fires, floods, explosions, epidemic quarantine restrictions or acts of God (herein referred to as events), then provided the notice of the happenings of any such events is given by either party to other party within 21 (Twenty one) days from the date of occurrence thereof, either party shall by reason of such event not be entitled to terminate this contract, nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance and delivery under the contract shall be resumed as soon as

Practicable after such event has come to an end or ceased to exist and the decision of the Contractee as to whether the deliveries have been so resumed or not shall be final and conclusive. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the Contractee subject to prompt notification by the Contractor to the Contractee of the particulars of the events and supply to the Contractee if required of any supporting evidence. Any waiver of time in respect of partial instalment shall not be deemed to be a waiver of time in respect of remaining work schedules.

IV TERMINATION OF CONTRACT

If as a result of difficulty in procurement of materials or due to force majeure reasons or any other reasons whatsoever the contractor is unable to keep the delivery schedule of the Contractee, the Contractee to the extent considered necessary may grant extension of time. Should there be delay in work, beyond the extended date of delivery, it shall be open to the Contractee to terminate the contract in part or full and make other arrangements for executing work at the cost and risk of the Contractor.

V INTERPRETATION

The Contractee shall decide any dispute or difference of opinion in respect of the interpretation, effect or application of this particular condition of the Contract or the amount recoverable hereunder from the contractor and the decision shall be final and conclusive.

VI BOOK EXAMINATION CLAUSE:

The Contractor shall whenever required produce or cause to be produced for examination by any Officer of the Contractee authorized in that behalf, any cost or other account book or account voucher, receipt letter, memorandum, paper or writing or any copy extract from any such document and also furnish information and returns verified in such a manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining the cost of execution of this contract (the decision of such officer of the Contractee on this question or relevancy of any documents, information or return being final and binding on the Parties). The obligation imposed by this clause is without prejudice to the obligation of the contract / purchase order or under any status rules or orders binding the contractor. The contractor shall if the authorized officer or the Contractee so required (whether before or after the prices have been finally fixed), afford facilities to the officer of the Contractee concerned to visit the contractors works for the purpose of examining the process of manufacture and estimate or ascertaining the cost for production of the articles, if any portion of the work be carried out by a sub contractor of any subsidiary of an allied firm or company, the authorized officer of the Contractee shall have power to secure the books of such sub contractor, or any subsidiary or allied firm or company shall be open to his inspection.

VII SET-OFF CLAUSES

Payment shall be subject to the deduction of any amount for which the Contractor is liable under this Contract, or any contract in respect of which Bharat Heavy Electricals Limited is the Contractee.

VIII LAWS GOVERNING THE CONTRACT

The Laws of Government of India in force shall govern the Contract. Irrespective of the place of the execution of the Contract place, of payment under the contract, the contract shall be deemed to have been made at the place at which the acceptance of the tender has been issued.

IX JURISDICTION OF THE COURT

The Courts of the place from where the acceptance of the tender is issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

X THE GLOBAL COMPACT

Global Compact is a signature initiative of United Nations Secretary General Kofi Annan and Four United Nation Agencies:

- ❖ Office of the High Commissioner for Human Rights
- ❖ International Labour Organisation
- ❖ United Nations Environment Programme
- ❖ United Nations Development Programme

This is a broad based initiative and engages:

- ❖ Individual Companies
- ❖ Business Associations
- ❖ International Labour
- ❖ Human Rights, Environment and
- ❖ Development Organisations
- ❖ Academic & Public Policy
- ❖ Institutions and United Nations

The Contractee (BHEL) is a member of this Global Compact. As a participating company, we have the obligation to

- ❖ Support and respect Human Rights within our spheres of influence.
- ❖ Make sure we are not complicit in Human Rights abuses.
- ❖ Make sure we are not employing Forced or compulsory labour.
- ❖ Refrain from employing Child Labour
- ❖ Eliminate discrimination in our hiring and firing policies.
- ❖ Support a precautionary approach to Environmental challenges.
- ❖ Undertake initiatives to promote greater environmental responsibility.
- ❖ Encourage development and diffusion of environmentally friendly Technologies

Contractor shall also ensure to fall in line with the above principles.

LIST OF DRAWINGS**PART – A – BOILER STRUCTURES**

S. No.	Drawing No.	Remarks	Project
1	1-36-322-02893	Typical Drawing	0390, 0391 & 0636
2	0-36-322-06982	Typical Drawing	0390, 0391 & 0636
3	0-36-322-06983	Typical Drawing	0390, 0391 & 0636
4	0-36-322-06984 / 01	Typical Drawing	0390, 0391 & 0636
5.	0-35-230-05695 / 01	Typical Drawing	0390 & 0391
6.	2-35-511-00775 / 02	Typical Drawing	0390 & 0391

PART – B - DUCTS

S. No.	Drawing No.	Remarks	Project
1	1-48-112-39322	Typical Drawing	0390, 0391 & 0636
2	1-48-112-39318	Typical Drawing	0390, 0391 & 0636
3	3-48-112-63770	Typical Drawing	0390, 0391 & 0636
4	3-48-112-63823	Typical Drawing	0390, 0391 & 0636
5.	2-48-112-45768	Typical Drawing	0390, 0391 & 0636
6.	1-48-222-35972	Typical Drawing	0390, 0391 & 0636
7.	1-48-222-35959	Typical Drawing	0390, 0391 & 0636
8.	0-48-207-32556	Typical Drawing	0390, 0391 & 0636

PART – C – AUTO WELD & COLUMNS

S. No.	Drawing No.	Remarks	Project
1	0-35-130-05816	Typical Drawing	0390 & 0391
2	0-35-130-05814	Typical Drawing	0390 & 0391
3	0-35-110-06047	Typical Drawing	0390 & 0391
4	0-35-110-03964	Typical Drawing	0390 & 0391
5	0-35-110-03959	Typical Drawing	0390 & 0391
6	0-35-110-03960	Typical Drawing	0390 & 0391
7	0-35-140-02933	Typical Drawing	0390 & 0391
7	0-35-140-05891	Typical Drawing	0390 & 0391
8	0-35-140-03956	Typical Drawing	0390 & 0391
9	0-35-111-04873	Typical Drawing	0636
10	0-35-111-04874	Typical Drawing	0636
11	0-35-111-04875	Typical Drawing	0636
12	0-35-111-04876	Typical Drawing	0636
13	0-35-521-05901	Typical Drawing	0633
14	0-35-521-05903	Typical Drawing	0633

PART – D – DUCT MANUAL

ANNEUXRE - J

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

PERFORMANCE BANK GUARANTEE

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its High Pressure Boiler Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called 'the Company') having entered into a contract withhereinafter called ' the said contractor ' which term includes 'suppliers' for the purpose of this Bond and under the terms and conditions of the contract No..... Dt Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We(indicate the name of the bank) (herein after referred to as the bank) at the request of (Contractor(s)) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) 'failure to perform' the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs._____.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till_____Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

(ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack. Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.

6. We(indicate the name of Bank), further agree with the company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealised.

8. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli.

9. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authority granted to him/them by the guarantor

10. We(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we....., (indicate the name of Bank) have
hereunto setout Bank Seal the _____ day
_____ month 200

ANNEXURE “T”

ENQUIRY NO:
OS/ACF/006 DT: 17-04-07

M/S.

SUPPLY OF BOILER COMPONENTS:

SL. NO.	SCHEDULE	TENDERED QTY (MTs)		RATE PER MT (RS.)		SPARABLE MONTHLY CAPACITY FOR BHEL (MT)
		250 MW	500 MW	250 MW	500 MW	
01	SUPPLY OF GENERAL FABRICATION OF STRUCTURES AS PER BHEL DRAWINGS AND SPECIFICATION AS DETAILED IN THE ANNEXURE”L” & “M”.	5500	9400			
02)	SUPPLY OF AUTO WELDED BEAMS AND BOXES WITH MATERIAL AS PER BHEL DRAWINGS AND SPECIFICATION AS DETAILED IN THE ANNEXURE”L” & “M”.	3520	8400			
03)	SUPPLY OF COLUMNS AFTER ASSEMBLY AS PER BHEL DRAWINGS & SPECIFICATION AS DETAILED IN THE ANNEXURE”L” & “M”.	4680	10700			
04)	SUPPLY OF DUCTS AS PER BHEL DRAWINGS & SPECIFICATION AS DETAILED IN THE ANNEXURE”L” & “M”.	3500	4300			
05)	FREIGHT CHARGES RATE / MT / KM					
06)	RATE FOR SURFACE BLASTING – FINISH Sa 2½ (BEFORE PAINTING) RATE / MT					

The above rates are quoted after having fully read and understood the enquiry terms and conditions. The quoted rates will be valid for a period of one year from the date of ordering.

VENDOR’S AUTHORISED SIGNATORY WITH SEAL

ANNEXURE - A				
APPROVED SOURCES FOR PLATES & STRUCTURALS				
Mat Group	Vendor No	Vendor Name	Agent	Specification
		STRUCTURALS, BEAMS, CHANNEL		
STCAB	10922	ABHISHEK STEEL LTD.	Manufacturer	IS2062
	20289	FERROMET	Manufacturer	IS2062
	11919	HARIYANA METALS LTD	Manufacturer	IS2062
	11927	INDIAN IRON & STEEL CO.LTD.	Manufacturer	IS2062
	11934	ISPHAT PROFILES INDIA LTD.	Manufacturer	IS2062
	12439	JINDAL STEEL & POWER LIMITED	Manufacturer	IS2062
	11939	JINDAL STEEL & POWER LIMITED	Manufacturer	IS2062
	14771	KANISHK STEEL INDUSTRIES,	Manufacturer	IS2062
	11502	PRABHU STEEL INDUSTRIES LTD	Manufacturer	IS2062
	12000	PRAKASH INDUSTRIES LTD	Manufacturer	IS2062
	11540	RASHTRIYA ISPAT NIGAM LIMITED	Sales Office	IS2062
	14103	SARITA STEEL & INDUSTRIES LIMITED	Manufacturer	IS2062
	15305	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS2062
	11929	THE INDIAN IRON & STEEL CO.LTD	Manufacturer	IS2062
	11928	THE INDIAN IRON & STEEL CO.LTD	Sales Office	IS2062
	12030	THE TATA IRON & STEEL CO.LTD.	Sales Office	IS2062
	14770	UNITED METAL INDUSTRIES,	Manufacturer	IS2062
		PLATES&SHEETS:CARBON		
STCSB	11047	CHAMPAK STEEL & ENGINEERING CO	Manufacturer	IS 277, 513, 1079, 2002, 2062, 3502
	15064	ESSAR STEEL LIMITED,	Manufacturer	IS 277, 513, 1079,2002, 2062, 3502
	10126	KALPANA STEEL CENTRE	Manufacturer	IS 277, 513, 1079, 2002, 2062, 3502
	11959	LLOYD STEEL INDUSTRIES LTD.,	Manufacturer	IS 277, 513, 1079, 2002, 2062, 3502
	15305	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS 277, 513, 1079, 2002, 2062, 3502
	10262	STEELMET INDUSTRIES	Manufacturer	IS 277, 513, 1079, 2002, 2062, 3502

		PLATES & STRUCTURALS		
STCS1	91035	mitsubishi corporation india pvt.lt	Sales Office	SA515,SA516,SA203,SA204,SA240,
	20449	SALZGITTER MANNESMANN	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	11907	STEEL AUTHORITY OF INDIA LTD	Sales Office	SA515,SA516,SA203,SA204,SA240,
	11682	STEEL AUTHORITY OF INDIA LTD	Sales Office	SA515,SA516,SA203,SA204,SA240,
	11908	STEEL AUTHORITY OF INDIA LTD	Sales Office	SA515,SA516,SA203,SA204,SA240,
	91020	HANSA INDUSTRIES PVT LTD	Agent	SA515,SA516,SA203,SA204,SA240,
	91018	FERROMEX (CHENNAI)	Agent	SA515,SA516,SA203,SA204,SA240,
	91009	D.K.CORPORATION	Agent	SA515,SA516,SA203,SA204,SA240,
	20501	TRADE ARBED EXPORT S.A.	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20502	TRADE LINK COMPANY	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	91047	PARIKH STEEL PVT. LIMITED	Agent	SA515,SA516,SA203,SA204,SA240,
	91008	CORUS LIASION SERVICES (INDIA) LTD	Sales Office	SA515,SA516,SA203,SA204,SA240,
	11910	STEEL AUTHORITY OF INDIA LTD	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20810	SAMSUNG CORPORATION	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	91036	MOBAR INDIA LTD	Agent	SA515,SA516,SA203,SA204,SA240,
	20911	ULTRATEST SYSTEMS LTD	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20975	JSC ILLYICH IRON AND STEEL WORKS.	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20976	OJSC DONETSK IRON AND STEEL WORKS	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20290	FERROMEX N.V.	Trader	SA515,SA516,SA203,SA204,SA240,
	20275	DUFERCO S.A.	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	91058	SAMSUNG CORPORATION	Sales Office	SA515,SA516,SA203,SA204,SA240,
	20269	DILLING-GTS VENTES	Manufacturer	SA515,SA516,SA203,SA204,SA240,ASTM A36
	14370	ULTRATEST SYSTEMS LTD.,	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20258	CORUS UK LIMITED	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	91064	STEEL COMMODITIES CORPORATION	Agent	SA515,SA516,SA203,SA204,SA240,
	20060	THYSSEN KRUPP STAHLUNION GMBH	Trader	SA515,SA516,SA203,SA204,SA240,
	14790	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	SA515,SA516,SA203,SA204,SA240,
	91068	TRADE ARBED INDIA (LUXEMBOURG)	Sales Office	SA515,SA516,SA203,SA204,SA240,
	15871	STEEL AUTHORITY OF INDIA	Sales Office	SA515,SA516,SA203,SA204,SA240,
	15064	ESSAR STEEL LIMITED,	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	91230	DHAMM STEEL SERVICES PVT LTD	Agent	SA515,SA516,SA203,SA204,SA240,

	91051	R.S.JHAVERI & CO.	Agent	SA515,SA516,SA203,SA204,SA240,
	20387	METAL ONE CORPORATION	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	11959	LLOYD STEEL INDUSTRIES LTD.,	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	10259	STEEL AUTHORITY OF INDIA LTD	Sales Office	SA515,SA516,SA203,SA204,SA240,
	20339	LNM MARKETING FZE	Manufacturer	SA515,SA516,SA203,SA204,SA240, ASTM A36
	20395	MOBAR ENGINEERING GMBH	Manufacturer	SA515,SA516,SA203,SA204,SA240, ASTM A36
	20438	REINER BRACH GMBH & CO.KG	Manufacturer	SA515,SA516,SA203,SA204,SA240, ASTM A36
	11912	STEEL AUTHORITY OF INDIA LTD	Manufacturer	SA515,SA516,SA203,SA204,SA240,
	20332	INDUSTEEL FRANCE	Manufacturer	SA515,SA516,SA203,SA204,SA240, ASTM A36
	13336	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	SA515,SA516,SA203,SA204,SA240,
PLATES & SHEETS - CARBON				
STCSP	10262	STEELMET INDUSTRIES	Manufacturer	IS 277,513,1079,2002,2062, 3502
	91235	JBB INTERNATIONAL,	Agent	IS 277,513,1079,2002,2062, 3502
	91064	STEEL COMMODITIES CORPORATION	Agent	IS 277,513,1079,2002,2062, 3502
	91047	PARIKH STEEL PVT. LIMITED	Agent	IS 277,513,1079,2002,2062, 3502
	11047	CHAMPAK STEEL & ENGINEERING CO	Manufacturer	IS 277,513,1079,2002,2062, 3502
	11683	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS 277,513,1079,2002,2062, 3502
	11682	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
	91051	R.S.JHAVERI & CO.	Agent	IS 277,513,1079,2002,2062, 3502
	10126	KALPANA STEEL CENTRE	Manufacturer	IS 277,513,1079,2002,2062, 3502
	11904	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
	13336	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS 277,513,1079,2002,2062, 3502
	20290	FERROMEX N.V.	Trader	IS 277,513,1079,2002,2062, 3502
	10259	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS 277,513,1079,2002,2062, 3502
	20269	DILLING-GTS VENTES	Manufacturer	IS 277,513,1079,2002,2062, 3502
	14307	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
	14308	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
	20258	CORUS UK LIMITED	Manufacturer	IS 277,513,1079,2002,2062, 3502
	20220	BAOSTEEL TRADING EUROPE GMBH	Trader	IS 277,513,1079,2002,2062, 3502
	20211	ALLEGHENY TECHNOLOGIES TAIWAN INC.	Manufacturer	IS 277,513,1079,2002,2062, 3502
	20060	THYSSEN KRUPP STAHLUNION GMBH	Trader	IS 277,513,1079,2002,2062, 3502
	14790	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	IS 277,513,1079,2002,2062, 3502

STCSP	PLATES & SHEETS - CARBON		
14857	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS 277,513,1079,2002,2062, 3502
15928	THE INDIAN IRON & STEEL CO. LTD.,	Manufacturer	IS 277,513,1079,2002,2062, 3502
15871	STEEL AUTHORITY OF INDIA	Sales Office	IS 277,513,1079,2002,2062, 3502
15305	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS 277,513,1079,2002,2062, 3502
15064	ESSAR STEEL LIMITED,	Manufacturer	IS 277,513,1079,2002,2062, 3502
13335	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS 277,513,1079,2002,2062, 3502
11905	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
11907	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
11908	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
11909	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502
21133	PT GUNUNG RAJA PAKSI	Manufacturer	IS 277,513,1079,2002,2062, 3502
20810	SAMSUNG CORPORATION	Manufacturer	IS 277,513,1079,2002,2062, 3502
11910	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS 277,513,1079,2002,2062, 3502
20501	TRADE ARBED EXPORT S.A.	Manufacturer	IS 277,513,1079,2002,2062, 3502
20449	SALZGITTER MANNESMANN	Manufacturer	IS 277,513,1079,2002,2062, 3502, ASTM A36
11912	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS 277,513,1079,2002,2062, 3502
11959	LLOYD STEEL INDUSTRIES LTD.,	Manufacturer	IS 277,513,1079,2002,2062, 3502
20387	METAL ONE CORPORATION	Trader	IS 277,513,1079,2002,2062, 3502
12952	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS 277,513,1079,2002,2062, 3502

2007-08 PLAN (MT) FOR SUPPLY WITH VENDOR MATERIALS							ANNEXURE "H"
SL. NO.	PROJECT	STRUCTURES	AUTO WELD	COLUMNS	DUCTS	TOTAL	STATE LOCATED
(A)	FIRM ORDERS						
1	BUDGE & BUDGE -- 250 (0392)	1100	780	970	350		WEST BENGAL
2	KOTA-7 - 1 X 250 (0384)				700		RAJASTHAN
3	NEW PARLI - 1 X 250 (0390)				700		MAHARASTRA
4	NEW PARAS - 1 X 250 (0391)				700		MAHARASTRA
5	HARIDWAGANJ - 8 -- 250 (0387)				700		UTTAR PRADESH
6	HARDWAGANJ - 9 -- 250 (0388)				350		UTTAR PRADESH
7	RAICHUR - 9 -- 250 (0389)	1100	780	970			KARNATAKA
8	SANTALDIH -6 -- 250	1100	780	970			WEST BENGAL
9	SIKKA -1 -- 270	1100	780	970			GUJARAT
10	SIKKA -2 -- 270	1100	400	800			GUJARAT
	TOTAL	5500	3520	4680	3500	17200	
1	MEJIA - 8 -- 500 (0639)	2500	2300	2300	1700		WEST BENGAL
2	MEJIA - 9 -- 500 (0640)	1250	1150	2300			WEST BENGAL
3	BHUSAVAL - 4 -- 500 (0643)	2500	2300	2300	1700		MAHARASTRA
4	BHUSAVAL - 5 -- 500	650	500	500			MAHARASTRA
5	KAPERKHEDA - 5 -- 500 (0642)	1250	1150	2300			MAHARASTRA
6	KOTHAGUDAM - 11 -- 500 (0641)	1250	1000	1000	900		ANDHRA PRADESH
	TOTAL	9400	8400	10700	4300	32800	
	GRAND TOTAL					50000	
The above break up is only for information with regard to composition of the various schedules for 250 mw and 500 mw orders received on date. However, during execution the project and the quantum this will vary depending up the priority and site readiness / customer requirements.							

ANNEXURE-K
GENERAL FABRICATION FOR 500 MW BOILERS
(A)GENERAL FABRICATION
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 150 x 75 - IS2062GRA(CB)
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 400 x 140 - IS2062GRA
BEAM 450 x 150 - IS2062GRA
BEAM 500 x 180 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 x 210 - IS2062GRA
BEAM 600 X 220 - IS2062GRB
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
CHQ PLATE 8 - IS3502
ERW PIPE NB150 MEDIUM - IS1239
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
PIPE OD 88.90 x 5.49 - SA106GRB
PIPE OD 88.90 x 12.50
PIPE OD 114.30 x 6.02 - SA106GRB
PIPE OD 127 X 11.5 - ASTMA53GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36

PLATE 16.0 MM - IS2062GRB
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36 MM - ASTMA36
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 56.0 MM - IS2062GRB
PLATE 6.0 MM - IS2062GRB
PLATE 63.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
ROUND DIA 6.0 MM - IS2062GRA
ROUND DIA 12.0 MM - SA105
ROUND DIA 16.0 MM - SA105
ROUND DIA 22.0 MM - SA105
ROUND DIA 32.0 MM - SA105
ROUND DIA 40.0 MM - SA105
ROUND DIA 50.0 MM - SA105
ROUND DIA 63.0 MM - SA105
ROUND DIA 80.0 MM - SA105
ROUND DIA 100.0 MM - SA105
ROUND DIA 200.0 MM - SA105
SHEET 2.5MM - IS1079D
SHEET 3.15mm-IS 1079 FE 330
SHEET 4.00 MM - IS1079
THREADED CLEVIS M27
THREADED CLEVIS M27(LH)
THREADED CLEVIS M45X3
THREADED CLEVIS M45X3(LH)
TUBE OD 60.3 X 5.6 X 12150 - SA210GRC
TUBE OD 76.1 X 4.5 X - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW
(A) GENERAL FABRICATION
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 400 x 140 - IS2062GRA
BEAM 450 x 150 - IS2062GRA
BEAM 500 x 180 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
CHQ PLATE 6 - IS3502
DIA 10mm-IS2062FE410GRA
ERW PIPE NB 80 HEAVY - IS1239
ERW PIPE NB100 LIGHT - IS1239
ERW TUBE NB 25 MEDIUM X5300-IS1161YST240
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240
ERW TUBE NB 50 MED x 6000 - IS1161YST240
ERW TUBE NB 65 LIGHT- IS1239
HEX HD BOLT M12X40-4.6 IS1363(P-1) CAD
PIPE OD 114.30 x 6.02 - SA106GRB
PIPE OD 168.30 x 7.11 X 6000 - SA106GRB
PIPE OD 88.9 X 5.49 - ASTMA53GRB
PLATE 10 - ASTMA36
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 12.0 MM
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36
PLATE 16.0 MM - IS2062GRA

PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 6 MM - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 7.0 MM - IS2062GRB
PLATE 7.00 MM - IS2062GRA
PLATE 8 MM - ASTMA36
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
PUNCHED WASHER A 18(ID) IS:2016
PUNCHED WASHER A14 (ID) IS 2016-CAD
ROUND DIA 6.0 MM - IS2062GRA
ROUND DIA 16.0 MM - SA105
ROUND DIA 22.0 MM - SA105
ROUND DIA 25.0 MM - SA105
ROUND DIA 32.0 MM - SA105
ROUND DIA 40.0 MM - SA105
ROUND DIA 50.0 MM - SA105
ROUND DIA 63.0 MM - SA105
ROUND DIA 80.0 MM - SA105
SHEET 2.5MM - IS1079D
SHEET 3.15mm-IS 1079 FE 330
SHEET 4.00 MM - IS1079
SHT 2.50 MM - IS5986FE410
STEPTREAD 50X250X850MMDRG 23682000399/03
THREADED CLEVIS M20
THREADED CLEVIS M20(LH)
THREADED CLEVIS M27
THREADED CLEVIS M27(LH)
THREADED CLEVIS M36X3
THREADED CLEVIS M36X3(LH)
THREADED CLEVIS M45X3
THREADED CLEVIS M45X3(LH)
TUBE OD 60.3 X 5 X 12150 - SA210GRA1
TUBE OD 60.3 X 5 X 7000 - SA210GRC
TUBE OD 60.30 x 8.74 MM - SA106GRB
TUBE OD 60.30 x 3.91 MM - SA106GRB
TUBE OD 76.1 X 4.5 X 11000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 5000 - A53GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m

ANNEXURE-K
MAJOR RAW MATERIALS FOR 500 MW BOILERS
(D) DUCTS
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 150 x 150 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
H-BEAM 305X165 - IS2062GRB
CAF JOINTING GR W/1-1.5 MM
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
DIA 10mm-IS2062FE410GRA
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240
PIPE OD 88.90 x 5.49 - SA106GRB
PIPE OD 114.30 x 6.02 - SA106GRB
PIPE OD 168.30 x 7.11 X 6000 - SA106GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16.0 MM - IS2062GRB
PLATE 20.0 MM - IS2062GRB
PLATE 25.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 6 MM - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 7 MM - ASTMA36
PLATE 7.0 MM - IS2062GRB
PLATE 7.00 MM - IS2062GRA
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
ROUND DIA 6.0 MM - IS2062GRA
ROUND DIA 32.0 MM - SA105
ROUND DIA 40.0 MM - SA105
ROUND DIA 50.0 MM - SA105
ROUND DIA 63.0 MM - SA105
SHEET 2.5MM - IS1079D
SHEET 2mm-IS1079 Fe 330
SHEET 4.00 MM - IS1079
TUBE 60.8X4.5
TUBE OD 21.30 x 2.77 MM - SA106GRB.
TUBE OD 33.40 x 3.38 MM - SA106GRB
TUBE OD 60.3 X 5.6 X 12150 - SA210GRC
TUBE OD 76.1 X 4.5 X - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 10000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 10000 - SA210GRA1
TUBE OD 76.1 X 4.5 X 12000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 13100 - SA210GRA1
TUBE OD 76.1 X 4.5 X 14000 - SA210GRA1
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 5000 - A53GRB
TUBE OD76.1 X 5.4 X 13100 - SA210GRA1

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(D) DUCTS
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRA
ERW PIPE OD 273.10 x 6.40 - API5LGRB
ERW TUBE NB 25 MEDIUM-IS1239
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240
ERW TUBE NB 65 LIGHT- IS1239
PIPE OD 88.90 x 5.49 - SA106GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 16 - ASTMA36
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
ROUND DIA 32.0 MM - SA105
SHEET 2.5MM - IS1079D
SHEET 2mm-IS1079 Fe 330
SHEET 4.00 MM - IS1079
TUBE 60.8X4.5
TUBE OD 21.30 x 2.77 MM - SA106GRB.
TUBE OD 33.40 x 3.38 MM - SA106GRB
TUBE OD 60.3 X 5 X 12150 - SA210GRA1
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 5000 - A53GRB

ANNEXURE-K
MAJOR RAW MATERIALS FOR 500 MW BOILERS
(C) COLUMNS
MATERIAL DESCRIPTION
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
CHQ PLATE 5 - IS3502
GP SHEET 1.60 MM - IS277GR120
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
PLATE 10 - ASTMA36
PLATE 10.0 MM - IS2062GRB
PLATE 100 X 2500 X 8000 - ASTMA36
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 56.0 MM - IS2062GRB
PLATE 63 X 1800 X 10000 - ASTMA36
PLATE 75 X 2100 X 4300 - ASTMA36
SHEET 1.6 MM - IS513D
SHEET 2.5MM - IS1079D

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(C) COLUMNS
MATERIAL DESCRIPTION
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16.0 MM - IS2062GRA
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56.0 MM - IS2062GRB
PLATE 6.0 MM - IS2062GRB
PLATE 63.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8.0 MM - IS2062GRB
SHEET 1.6 MM - IS513D
SHEET 2mm-IS1079 Fe 330

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(B) AUTO WELD
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHQ PLATE 6 - IS3502
CHQ PLATE 8 - IS3502
HEX HD BOLT M12X40-4.6 IS1363(P-1) CAD
PIPE OD 88.90 x 7.62 - SA106GRB
PIPE OD 127.00 x 10.00 - SA106GRB
PLATE 10 - ASTMA36
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16.0 MM - IS2062GRB
PLATE 16.0 MM - SA515GR70
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB

PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8 MM - ASTMA36
PLATE 8.0 MM - IS2062GRB
PUNCHED WASHER A 18(ID) IS:2016
PUNCHED WASHER A14 (ID) IS 2016-CAD
ROUND DIA 22.0 MM - SA105
STEPTREAD 50X250X850MMDRG 23682000399/03
TUBE OD 63.50 X 5.20 X 11000 - SA210GRC
Grand

ANNEXURE-K
MAJOR RAW MATERIALS FOR 500 MW BOILERS
(B) AUTOWELD
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 400 x 140 - IS2062GRA
BEAM 450 x 150 - IS2062GRA
BEAM 500 x 180 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 x 210 - IS2062GRA
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
ELEC.FORGD. STEP TREAD 50 X 250 X 1000
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36
PLATE 16.0 MM - IS2062GRA
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36 MM - ASTMA36
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB

PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 6 MM - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 63 X 1800 X 10000 - ASTMA36
PLATE 63.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 7 X 1800 X 6000 - ASTMA36
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
SHEET 1.6 MM - IS513D
SLIDE BEARAING PLATE

ANNEXURE "L"																
2007- 08 PLAN FOR A TYPICAL 250 MW																
PG	MA	PGMA DESCRIPTION	EST. WT IN MT	001	002	003	004	009	010	014	047	050	087	301	302	303
		(A) GENERAL FABRICATION - STRUCTURES														
35	310	Horizontal Bracing I Pass I Mbl	22.20		10.70		0.30			11.20						
35	320	Horiz Bracing I Pass Ii Mbl	26.90		9.40	1.40	4.40			11.70						
35	330	Horiz Bracing I Pass Iii Mbl	17.20	0.50	8.20					8.50						
35	340	Horiz Bracing I Pass Iv Mbl	24.70		13.60	0.20				10.90						
35	350	Horiz Bracing I Pass V Mbl	25.20		9.90	0.70				14.60						
35	360	Horiz Bracing I Pass Vi Mbl	21.50		9.30					12.20						
35	380	Landing Platforms	59.20	15.00	9.70	11.20	0.80		1.10	16.30	5.10					
35	511	Front Bracing-Lower	19.90		3.10						16.80					
35	513	Front Bracing-Upper	12.70		2.10					0.20	10.40					
35	521	Side Bracing-Lower	37.90		6.20					0.50	31.20					
35	523	Side Bracing-Upper	26.60		3.30					0.50	22.80					
35	531	Rear Bracing-Lower	41.30		8.50					0.70	32.10					
35	533	Rear Bracing-Upper	12.70		1.90					0.20	10.60					
35	993	Consumables and erection materials	17.30									17.30				
36	310	Main Mbl Floor 11th Level	34.50	1.40	5.70		3.40			4.20	19.80					
36	321	Main Floor Ii Mbl Ist Pass	39.30	5.80	15.70	7.40			1.20	5.80	3.40					
36	331	Main Floor Iii Mbl 1st Pass	27.00	3.60	9.90	6.80	0.60		0.20	2.90	3.00					
36	340	Main Floor 14th Level	20.80	3.80	2.60	0.20	1.60		0.60	6.50	5.50					
36	341	Main Floor Iv Mbl 1st Pass	43.30	6.80	13.80	11.20	5.10			6.40						
36	342	Main Floor Iv Mbl 2nd Pass	27.50	4.30	8.80	7.10	3.30			4.00						
36	351	Main Floor V Mbl Ist Pass	22.30	4.60	7.50	4.40	0.50			5.30						
36	352	Main Floor V Mbl Ii Nd Pass	7.30	2.60	1.30				0.60	2.80						
36	360	Main Floor 16th Level	8.60		1.50		3.50		0.20	3.40						
36	361	Main Floor Vi Mbl 1st Pass	31.00	5.00	2.90	3.00	1.70		1.90	6.10	10.40					
36	391	Miscellaneous Platforms-Part I	64.40	8.40	27.60	6.30	2.50		2.30	12.20		5.10				
36	610	Boiler Roof Structure	64.30	17.00			3.70		14.70	7.10		21.80				
36	620	Boiler Side Cladding Structure	43.50	16.30		0.60			5.40	7.60		13.60				
36	993	Consumables and erection Materials	5.60									5.60				
38	210	Inter Conn Platformsbetn Boiler/Elevat	5.70	2.20	0.20		1.70			1.60						
38	299	Mill Handling Monorails	39.40						2.00	7.10			30.30			
38	310	Conn Platforms To Mill Deaerator Bay	4.30	1.90	1.00	0.40				1.00						
38	510	Lift Beams And Bracings	29.80	0.90					9.00	19.90						
38	610	Elevator Cladding Structure	12.50							12.30		0.20				
38	710	Lift Machine Room Details and misc Struct	4.70	1.20	0.20	0.20	0.40		1.00	1.70						
38	993	Consumables And Erection Materials	2.00	1.10						0.90						
39	300	Platforms - External Structure	64.40	9.30	21.50	2.00	9.60		1.20	8.00	12.80					
39	301	Struc And Platform For Fans	5.20			1.10				3.50		0.60				

39	302	Struc For Motor Hood Covering	7.58							0.10		7.48				
PG	MA	PGMA DESCRIPTION	EST. WT IN MT	001	002	003	004	009	010	014	047	050	087	301	302	303
39	993	Consumables And Erection Materials	10.80									10.80				
48	015	Supportsetcbet F.D Fan And Airheater	8.50					0.10	5.90	2.50						
48	115	Supportsetcpri Fan To Airheater Prsid	4.80					0.50		3.50		0.80				
48	145	Supportsetccoldairbus(Temp Air To Mill	3.00					0.30	0.40	2.30						
48	205	Supportsetcairheater To Windboxduct	6.90	1.00			0.80		0.50	3.10		1.00		0.1		0.4
48	225	Supports For Hot P.A (Ah To Hot Bus)	11.10		0.60		2.50	0.30		6.20		0.50			1.00	
48	385	Supportsetceconomiser To Airheater2nop	20.90				9.50		5.40	1.20		1.00			3.1	0.7
48	435	Supportsetcairheater Boiler Outlet-Gas	1.80				1.20			0.60						
48	465	Bof To Ep Ducting Supports	19.90	0.80			6.20	6.20	0.60	4.30		1.80				
48	485	Supportsetcelec Prptr/M.S To Inddraftf	8.80	2.80				0.30		3.80		1.40				0.5
48	495	I.D.System Duct Supports	7.20	0.40			1.50	0.20		4.70		0.40				
48	665	Supports For Hot Pa To Mills	4.80					0.30	0.70	1.80		0.30			1.00	0.7
48	993	Erection Materials	2.80	0.20						1.60		1.00				
		TOTAL	1091.58	116.90	216.70	64.20	64.80	8.20	54.90	253.50	183.90	90.68	30.30	0.10	5.10	305.30
PG	MA	PGMA DESCRIPTION	EST. WT IN MT	001	002	003	004	005	010	014	023	047	050	084		
		(B) AUTO WELD														
35	390	Platform At Drum Floor Level	34.70	4.00	11.70	7.00			1.90	6.40	3.70					
35	441	Horizontal Beams-Lower	129.30	25.70						7.10	96.50					
35	443	Horizontal Beams-Upper	106.10	26.00			8.50			6.70	61.00	3.90				
36	311	Main Floor I Mbl 1st Pass	36.20	6.50	3.90	10.90	2.50		3.50	5.30	3.60					
36	320	Main Floor 12th Level	26.10		3.90		0.90			5.10	16.20					
36	322	Main Floor Ii Mbl 2nd Pass	112.30	26.40	27.60	5.10	9.70		0.30	15.20	27.60	0.40				
36	330	Main Floor 13th Level	24.00	0.40	2.70		4.00		0.30	4.50	12.10					
36	350	Main Floor 15th Level	41.10	2.90	7.90				0.20	5.70	22.10	2.30				
36	392	Miscellaneous Platforms-Part II	105.40	15.00	36.90	0.20	4.30		1.30	15.80	26.50		5.40			
38	410	Mill Maintanance Platforms	61.40	6.30	19.50	1.00	1.10		0.20	8.70	15.50	9.10				
39	102	Columns Frames Before Esp -Right	47.50	9.00					21.20	13.70	3.60					
39	303	Monorail Beams For Fans	54.40	8.40		2.00	11.70	18.80	1.80	3.60	3.10			5.00		
		TOTAL	778.50	130.60	114.10	26.20	42.70	18.80	30.70	97.80	291.50	15.70	5.40	5.00		
PG	MA	PGMA DESCRIPTION	PGMA WT IN MT	001	002	003	004	005	010	014	023	047	082	083	084	085
		(C)COLUMNS														

[illegible]

2007 - 08 PLAN FOR A TYPICAL 500 MW																		
Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	001	002	003	004	005	009	010	014	023	047	050	084	302	303
	(A) GENERAL FABRICATION (STRUCTURES)																	
	35	311	Horizontal Bracing I Pass I Mbl	12.15	1.16	4.09						6.90						
	35	312	Horiz Bracing li Pass Imbl	15.55	1.83	5.73						7.99						
	35	321	Horiz Bracing I Pass li Mbl	13.76	1.49	3.90						8.37						
	35	322	Horiz Bracing li Pass li Mbl	16.49	1.19	5.70		1.05				8.55						
	35	331	Horiz Bracing I Pass lii Mbl	17.27	1.85	5.83	0.42					9.17						
	35	332	Horiz Bracing li Pass lii Mbl	13.46	1.12	4.45	0.48	1.14				6.27						
	35	341	Horiz Bracing I Pass Iv Mbl	13.35	0.97	3.98	0.23					8.17						
	35	342	Horiz Bracing li Pass Iv Mbl	14.15	1.31	4.59		1.94				6.31						
	35	351	Horiz Bracing I Pass V Mbl	15.98	0.86	5.01	0.41	0.44				9.26						
	35	352	Horiz Bracing li Pass V Mbl	11.26	1.71	2.20						7.35						
	35	361	Horiz Bracing I Pass Vi Mbl	16.63	0.80	5.74	0.20					9.89						
	35	362	Horiz Bracing li Pass Vi Mbl	10.55	1.67	1.82		0.24				6.82						
	35	381	Land Platform Lower	19.08	9.32	4.55						4.78			0.43			
	35	382	Land Platform Middle	12.34	4.55	2.12	1.71	0.39				3.30			0.27			
	35	383	Land Platform Upper	11.69	5.47	2.68		1.86				1.68						
	35	390	Platform At Drum Floor Level	21.86	5.86	5.42	5.10	1.82				3.66						
	36	150	Beams and bracings Near Air Pre H	25.51		1.88						1.90		21.73				
	36	311	Main Floor I Mbl 1st Pass	20.43									13.88	6.55				
	36	312	Main Floor I Mbl 2nd Pass	39.28									13.03	26.25				
	36	313	Non-Mbl Floor Between Mbl landii	6.12									6.12					
	36	316	Non-Mbl Floor Between Mbl landii	64.82		17.63	3.22	2.68			2.80	11.21	6.30	20.98				
	36	323	Non-Mbl Floor Between Mbl landii	23.05	5.57	4.91		1.28			1.73	6.96		2.60				
	36	322	Main Floor li Mbl 2nd Pass	8.15										8.15				
	36	324	Non-Mbl Floor Between Mbl liandiii	5.12									5.12					
	36	325	Non-Mbl Floor Between Mbl liandiii	59.70		2.59	8.12	3.44				3.32	20.21	22.06				
	36	326	Non-Mbl Floor Between Mbl liandiii	102.09	1.97	9.68		5.55	0.21		0.20	8.66	22.24	53.58				
	36	327	Non-Mbl Floor Between Mbl liandiii	42.14	11.42	15.15	5.77					9.80						
	36	331	Main Floor lii Mbl 1st Pass	13.83				0.52				7.76	5.55					
	36	333	Non-Mbl Floor Between Mbl liiandiv	149.24	1.38	20.25		0.29			0.19	13.62	42.20	71.31				
	36	335	Non-Mbl Floor Between Mbl liiandiv	20.55	4.97	7.02	2.12				0.06	6.38						
	36	342	Main Floor Iv Mbl 2nd Pass	10.60	4.44	0.94						5.22						
	36	343	Non-Mbl Floor Between Mbl Ivandv	20.11	3.34	8.25		0.99			0.29	4.79	2.45					
	36	344	Non-Mbl Floor Between Mbl Ivandv	26.65	11.29	10.18						5.18						
	36	345	Non-Mbl Floor Between Mbl Ivandv	23.99	3.81	8.49	1.60					3.77	6.32					
	36	346	Non-Mbl Floor Between Mbl Ivandv	38.46	1.48	6.41	2.17					2.55	18.53	7.32				
	36	347	Non-Mbl Floor Between Mbl Ivandv	21.70	7.45	6.28	1.08				0.76	6.13						
	36	348	Non-Mbl Floor Between Mbl Ivandv	17.90	5.89	6.50	1.79				0.22	3.48			0.02			
	36	351	Main Floor V Mbl Ist Pass	21.27	4.95	8.22					0.09	7.87			0.16			
	36	352	Main Floor V Mbl li Nd Pass	4.59	0.79	2.16						1.64						
	36	353	Non-Mbl Floor Between Mbl Vandvi	25.82	6.63	8.87	4.49					5.65			0.18			
	36	354	Non-Mbl Floor Between Mbl Vandvi	36.53	5.65	14.06	1.52	1.41			1.11	9.46	3.32					
	36	355	Non-Mbl Floor Between Mbl Vandvi	35.53	9.97	10.24	2.62	0.67			0.41	8.63	2.99					
	36	363	Non_Mbl Floor Above Mbl Vi	29.36	5.33	11.25	4.98					5.67	1.93		0.20			
	36	391	Miscellaneous Platforms-Part I	34.15		13.72	2.00	3.86				14.57						
	36	393	Miscellaneous Platforms Part Iii	21.96	0.54	18.32						3.10						

Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	001	002	003	004	005	009	010	014	023	047	050	084	302	303
	36	395	Miscellaneous Platforms Part V	76.25	11.41	36.05	7.74				1.03	13.55	6.21		0.26			
	36	610	Boiler Roof Structure	75.02							8.37	11.60			55.05			
	36	620	Boiler Side Cladding Structure	8.90	3.93						1.62	3.35						
	38	210	Inter Conn Platformsbetn Boiler/Elevat	10.01		0.82		5.69				3.50						
	38	310	Conn Platforms To Mill Deaerator Bay	28.74	1.61	5.55	9.82				0.70	11.06						
	38	510	Lift Beams And Bracings	36.76	1.04						11.20	24.52						
	38	610	Elevator Cladding Structure	16.72								16.33			0.39			
	38	710	Lift Machine Room Detailsandmisc Struct	39.16	2.24	3.22	0.33	1.62				9.31			22.44			
	39	101	Columns Frames Before Esp- Left	121.30							38.75					82.55		
	39	102	Columns Frames Before Esp - Right	284.30	65.74		2.07	18.44				25.92	172.13					
	39	141	Cols Frames Near Id Fan - Left	190.49										84.87		105.62		
	39	142	Cols Frames Near Id Fan - Right	275.81				169.20			43.93	13.34		49.34				
	39	150	Col Frames Betn I.D.Fan And Chimney	62.76	4.81		0.77	13.15	18.36		14.14	6.20	5.33					
	39	301	Struc And Platform For Fans	5.42						2.23		3.19						
	39	302	Struc For Motor Hood Covering	7.58								0.10			7.48			
	48	015	Supportsetcbet F.D Fan And Airheater	9.97	1.07			0.83		0.18	0.49	7.40						
	48	115	Supportsetcpri Fan To Airheater Prisd	17.64	5.49					0.15	1.60	9.66			0.32			0.42
	48	145	Supportsetccoldairbus(Temp Air To Mill	2.28							0.28	1.22					0.78	
	48	205	Supportsetcairheater To Windboxduct	8.76			0.87				0.62	2.09					0.07	5.10
	48	225	Supports For Hot P.A (Ah To Hot Bus)	3.60						0.06	0.55	2.43					0.56	
	48	235	Support Hot Air Bus	7.25	0.24					0.37		6.64						
	48	385	Supportsetceconomiser To Airheater2nop	10.98				3.35			1.19	1.96			1.98			2.50
	48	415	Supports-Airheater Bypass Gas Side	23.08	1.07			8.62				8.77			4.62			
	48	435	Supportsetcairheater Boiler Outlet-Gas	6.46	0.72			3.70		0.20		1.84						
	48	465	Bof To Ep Ducting Supports	28.17	0.65			12.93		0.54	2.41	11.64						
	48	485	Supportsetcelec Prptr/M.S To Inddraftf	18.64	0.96			4.24		0.60	0.87	11.40						0.57
	48	495	I.D.System Duct Supports	7.75	2.68						0.85	4.22						
	48	665	Supports For Hot Pa To Mills	9.20						0.82	0.72	7.66						
	48	993	Erection Materials	13.74								0.60			13.14			
			TOTAL	2590.96	241.69	326.45	71.63	271.34	18.57	5.15	137.18	485.29	353.86	374.74	106.94	188.17	1.41	8.59

Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	001	004	010	014	021	022	023	047	048	050				
			(B) COLUMNS															
	35	111	Main Columns Left 1st Pass	247.71									247.71					
	35	112	Main Columns Lert 2nd Pass	231.85		1.11	14.82	10.14	112.53				92.44	0.81				
	35	121	Maincolumns Right 1st Pass	550.08					302.37				247.71					
	35	122	Main Columns Right 2nd Pass	204.97					112.53				92.44					
	35	130	Main Columns Middle	319.04					155.03	19.15		17.68	127.18					
	35	140	Auxiliary Columns-Left Side	233.38					120.72			112.66						
	35	150	Auxiliary Columns-Right side	233.38					120.72			112.66						
	36	110	Columns Near Air Pre Heaters	179.27					69.62	25.75		43.99	39.91					
	36	130	Middle Columns In Boiler	129.11	9.66	2.55		2.91			46.94	67.05						
			TOTAL	2328.79	9.66	3.66	14.82	13.05	993.52	44.90	46.94	354.04	847.39	0.81				
Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	001	002	003	004	005	009	010	014	022	023	047	048	050	087
			(C) AUTO WELD															
	35	441	Horizontal Beams-Lower	72.29			24.63				10.22	1.59		8.54	27.31			
	35	442	Horizontal Beams Middle	37.42			8.76	7.38				0.91			20.37			
	35	443	Horizontal Beams-Upper	54.84	0.82		11.91	25.68				1.35			15.08			
	35	451	Horizontal Beams - Lower 2nd Pass	66.98		0.25	6.32	3.69			6.14	0.87		27.85	21.86			
	35	452	Horizontal Beams - Middle - 2nd Pa	79.60	0.25		21.98	4.55				0.49			32.83	19.50		
	35	453	Horizontal Beams - Upper - 2nd Pa	27.04	9.74			11.26				1.18			4.86			
	35	511	Front Bracing-Lower	47.88	0.55				28.23			0.04			19.06			
	35	512	Front Bracing Middle	22.52					12.75						9.77			
	35	513	Front Bracing-Upper	25.59					14.91						10.68			
	35	521	Side Bracing-Lower	148.48	0.85				87.02			1.08			59.53			
	35	522	Side Bracing Middle	78.79					46.85						31.94			
	35	531	Rear Bracing-Lower	98.23	0.75				58.83			0.83			37.82			
	35	532	Rear Bracing- Middle	66.42	0.36				41.07			0.40			24.59			
	35	533	Rear Bracing-Upper	55.00					34.69			0.50			19.81			
	36	315	Non-Mbl Floor Between Mbl landii	66.82											66.82			
	36	321	Main Floor li Mbl 1st Pass	5.69											5.69			
	36	332	Main Floor lii Mbl 2nd Pass	38.81										21.32	17.49			
	36	334	Non-Mbl Floor Between Mbl liiandiv	11.30										2.42	8.87			
	36	341	Main Floor Iv Mbl 1st Pass	24.70										21.98	2.72			
	36	361	Main Floor Vi Mbl 1st Pass	4.68											4.68			
	36	392	Miscellaneous Platforms-Part li	122.25	16.02	45.82	3.21				0.70	14.98		41.52				
	36	394	Miscellaneous Platforms Part Iv	123.14	3.09	41.60	6.70	2.12				30.55		30.42			8.66	
	36	740	Posts And Hangers	129.44				0.96				0.67	54.15		72.18		1.48	
	38	299	Mill Handling Monorails	66.87							2.89	9.11		7.46				47.39
	38	381	Eco Handling Structure	192.61	6.93	10.95	43.09	26.55		4.36	19.60	12.33	21.00	20.24	27.56			
	38	410	Mill Maintanance Platforms	80.08	8.29	18.22		3.66			2.21	20.47			22.30		4.93	
	39	300	Platforms - External Structure	196.70	9.44	51.81	5.29	8.23			4.20	27.01		90.02			0.70	
	39	304	Fan Handling Structure For Fd Fan	73.73	8.50		6.68	6.63			22.96	20.32		8.64				
	39	305	Fan Handling Structure For Pa Fan	73.77	8.50		6.68	6.63			22.96	20.36		8.64				

Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	001	002	003	004	005	009	010	014	022	023	047	048	050	087	
	39	306	Fan Handling Structure For Id Fan	210.92	8.50	10.88	59.14	15.73				15.45		101.22					
			TOTAL	2302.59	82.59	179.53	204.39	123.07	324.35	4.36	91.88	180.49	75.15	390.27	563.82	19.50	15.77	47.39	
Sr NO	PG	MA	PGMA DESCRIPTION	EST.WT	006	007	009	013	302										
			(D) DUCTS																
	48	012	Rect Duct Bet F.D Fan And Airheater	112.93	19.67	87.90	5.36												
	48	112	Rect Ducts Pri Fan To Airheater Prisd	74.10	26.10	40.96	7.04												
	48	142	Rect Duct Coldairbus(Temp Air To Mill	22.91	13.05		9.86												
	48	202	Rect Ductsairheater To Windboxduct	142.24	11.55	129.06	1.63												
	48	207	Flowmeters For Secondary Air Flow	17.07			17.07												
	48	212	Wind Box Connecting Ducts - Rectangula	21.37		21.37													
	48	222	Rect Duct-Airheater Prisdetohotair B	58.63	35.09	21.48	2.06												
	48	232	Rect Ducts Hot Air Busduct(Hotairtomil	53.47	17.72	35.75													
	48	382	Rect Duct Economiser To Airheater2nop	230.65	11.25	197.28	3.65	15.36	3.11										
	48	386	Duct lbow Diverter	207.86	23.98	183.88													
	48	432	Rect Duct Airheater Boiler Outlet-Gas	65.65	7.18	58.47													
	48	462	Rect Duct Boiler Outlet To Elec Precp	244.18	80.01	164.17													
	48	482	Rect Ducts-Elec Prptr/M.S To Inddraftf	237.51	42.98	188.39	6.14												
	48	492	Rect Duct Ind Draft Fan To Chimney	129.24	38.55	89.14	1.55												
	48	662	Rect Duct Hot Air Bus To Mills	56.27	6.96	23.04	26.27												
			TOTAL	1674.08	334.09	1240.89	80.63	15.36	3.11										
			GRAND TOTAL	8896.42															
			SCHEDULE	QTY IN MT															
			GENERAL FABRICATION	2500															
			AUTO WELD	2300															
			COLUMN	2300															
			DUCTS	1700															
			TOTAL	8800															
			Note : The Above Data is only indicative and not Exhaustive. However the wt and schedule may vary at the time of actual document release.																

ANNEXURE -N		
WORK CONTENT OF VARIOUS RATE SCHEDULES - 30-03-07		
Sl. NO.	RS. NO.	DESCRIPTION
1	001	Cut-to-size in structural including taper cutting and edge preparation, erection materials, rectangle plate cutting.
2	002	End profiled structurals, plate shape cutting , Beam cut as 'T'
3	003	Buckstays, supp. strls., galleries stairways (bolted type), platform, supports, collector channel, cleat, ladder, supp. plates, bearing plates, welded beam, supp. angles, bent plate, supp. beam and built-beams in all PGMAs. Trial assy of segments of chimneys and stacks, rolled beam with holes.
4	004	Castellated beams, columns made out of rolled beams, box bracing of sizes 200 mm & above, slotted section, stairways (welded type), fabn. of segmental flanges.
5	005	Built-up beam and box up to 2.5 M length, rafters, built-up elevator column, roof enclosure column assy., spider bracing assy., welded beams including button plates, deck panel assembly fully welded angle bracing, buckstay assembly with rolled sections bracing type star angle involving trial assembly. Box bracing of size 200mm and above with base plate welding and lay out.
6	006	Rectangular ducts, deflector plates, wall frames including collector channel assembly. Baffle with door, Vertical Baffle Plate.
7	007	Transition, elbow ducts, divider ducts, bend ducts, fully welded box type ducts, rectangular ducts/duct walls of tower type design, guide vane inclusive of collector channel assy, truss assembly inside duct, wind box connecting duct.

Sl. NO.	RS. NO.	DESCRIPTION
8	008	Fixing components for lining and insulation, boiler casings, frames and transport stands, washer plates 40 mm & above, cassette baffle (CS), forming of rolled section, CEEP, omega strip, locating plate, seal box, punched sheet, tubular truss, liner plate (loose). Casing Wall (>500 Kg).
9	009	Burner panel and oil unit frame, segmental bend fabn. out of pipes, reducer, CAF gaskets, seal air header, MDV Header shim plates and small components with more machining work content, Panto support, any forming operations in plates and misc. components, Feeder Shell fabn, Plate end weldment, hood ladder, skirt assy. upto 2.5 metres dia, 4 metre long, saddle support, ducts of less than 1 MT, circular to any shape transition, aerofoil, flow meter/veturimeter & hand rail with hollow spheres (weldment). CS Support(<30 Kg), Spacer tube with Guide, Guide PL Casing Wall upto 500Kg, Clad sheets, L Frame Assy Components, Orifice Assy, Pipe Screw, Side Casing Assy(Incl. of Polythene sh. packing), Buckstay assy. with beam by SAW, fabricated end cover dia> 508 mm.
10	010	Built-up box & beam above 2.5 M length, " + " type columns out of rolled sections involving trial assy, channel box bracing upto 150mm, channel box column trial assembly, built-up beam with plate 12mm & below .
11	011	Circular ducts , rolling and welding of pipes out of plates, spring cover, carbon steel down spout/feed pipe.
12	012	Bellow type expansion joints (carbon steel)
13	013	Expansion Panel / Expansion plates and pleated panel
14	014	Small despatchable units with piece weight less than 100 kg. (of RS 001- 005).
15	015	Stainless steel forming
16	016	Bellow type expansion joints (alloy steel / corten steel)
17	017	Stainless Steel bellow type Expansion Joint.
18	018	CS/AS shearing & straightening up to 10 mm and SS shearing upto 6 mm., guard plate
19	020	Stainless steel fabn. Of down spout/feed pipe out of pipes, cassette baffle.
20	023	Fabn. Of built-up beams, UC, by SAW including edge preparation, lay out, MPI/LPI as called for in QWI.
21	025	Circular damper (incl. of packing charges) up to 100 kg.
22	028	Circular damper (incl. of packing charges) above 100 kg.
23	029	Auto damper (including machining and assy)
24	031	Corrugated sheet
25	032	Alloy steel fabrications including corten steel.
26	033	Stainless steel fabns. Including down spout and feed pipe out of plates.

Sl. NO.	RS. NO.	DESCRIPTION
27	034	Shell assy upto 16mm plate thick, skirt assy more than 2.5 dia, length more than 4 metres, seg.bends out of plates upto 16 mm, weld attachments for drum, drum internals for power boilers.
28	035	Shell Assembly above 16 mm plate thick, drum internals for industrial boilers, chimneys, stack assemblies and non- pressure part headers.
29	036	Fabrication of Alloy steel Ducts.
30	037	Alloy Steel welded channels and welded beams fabricated out of AS plates.
31	039	Ducts of less than 2 MT, circular to any shape transition.
32	040	Alloy steel Crown Plate (Plate thickness more than 12mm.)
33	042	Strips, Plates, stiffners involving shearing and punching operations upto 6 mm, U clamp upto 6mm
34	043	Strips, Plates, stiffners involving shearing and punching operations above 6 mm, corner support flat & U clamp above 6mm
35	044	Small items like Peg fin, bent pin, U plate
36	045	Pipe bend 45,90,135 deg. upto Tube dia 44.5 mm .
37	046	Multiple bends upto Tube dia 44.5 mm.
38	047	Fabn. Of box type beams from plates by SAW including edge preparation , lay out LPI/MPI as called for in QWI.
39	048	Fabn. Of “ + “ type beams from plates of any thickness by SAW including edge preparation, lay out, LPI/MPI as called for in QWI. .
40	050	Despatch of structural item, viz., angles, beams, channels, plates, tubes and rods as Running Meter
41	055	Press brake items and deck ribbed sheet, ribbed sheet, omega strip including steel crating as per sketch AD:OP&C:001 out of BHEL materials, wherever called for and omega strip
42	056	Linkage assy (CS/AS)
43	058	Fabn. & Trial assy. Of Ceiling Girders upto 250 MW and Fabn. & Trial assy. Of 500 MW single girder.
44	059	Fabn. & trial assy. of 500 MW Ceiling Girder

Sl. NO.	RS. NO.	DESCRIPTION
45	066	Wind box & panel supports above 210 MW
46	067	Erection lug, partition plate, square nut
47	068	Roof seal band with / without filler piece (upto 250 MW)
48	069	Roof seal band with / without filler piece (for 500 MW)
49	070	U Shield, bend type tube shield, SS spacer tube, reinforce pad shield, Air Nozzle (SS) + Tube(SS/CS) welding SS clevis pin
50	073	Alignment band per set (upto 250 MW)
51	074	Miscellaneous items such as panel erection/ handling attachment, washer, brackets, rack trays, collector plates, eco-straps, switch mounting bracket, off-set bar (plate type and rod without machining), lugs, lug plates, yoke plates, name plate holder, lifting handle
52	075	Strap type supports per set
53	077	U Rod without threading
54	078	Alignment band per set for 500 MW
55	081	Fabn. Of built up beam, Universal column, by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial assy, inclusive of end packing for Assy wt more than 10 MT
56	082	Fabn. Of built up beam, Universal column, by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial assy, inclusive of end packing for Assy.wt less than or equal to 10 MT
57	083	Fabn. Of box from plates by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial Assy, inclusive of end packing for Assy. wt more than 10 MT
58	084	Fabn. Of box from plates by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial Assy, inclusive of end packing for Assy. wt less than or equal to 10 MT
59	085	Fabn. Of “+” type column from plates of any thickness by SAW including edge preparation, layout, MPI/LPI as call for QWI & trial assy, inclusive of end packing for assy. wt more than 10 MT
60	086	Fabn. Of “+” type column from plates of any thickness by SAW including edge preparation, layout, MPI/LPI as call for QWI & trial assy, inclusive of end packing for assy. wt less than or equal to 10 MT

Sl. NO.	RS. NO.	DESCRIPTION
61	087	Monorail beam fabn. & trial assy.
62	088	Bracing Fabn. & Trial assy.
63	090	Buckstay assy. with beam by SAW.
64	091	Buckstay assy, with rolled beam.
65	092	Single piece auto welded column with base plate and top plate.
66	111	Metallic End Cover upto dia 273 mm
67	112	Metallic End cover dia 275-dia 355.6 mm
68	116	Fabn. type end cover upto dia 508
69	120	Pipe clamp
70	121	Spacer clip, supp clip (AS), supp lug (AS), strip, stud
71	124	Turbo separator
72	125	Corrugated Drier box
73	126	Screen type drier
74	127	Rectangular man-hole door, AS strut, CS Sp box, SS Sp bar, thermowell
75	129	Heat treatment of boiler components as per QCP:002/02. Stress-relieving / normalising shall be done.
76	131	CEEP to drg. 3-48-382-30016
77	133	Style 01 Drawing 9999-3-DD-0001/02
78	134	Style 02 Drawing 9999-3-DD-0001/02
79	135	Style 03 Drawing 9999-3-DD-0002/04
80	136	Style 04 Drawing 9999-3-DD-0002/04 (Carbon)
81	137	Style 04 Drawing 9999-3-DD-0002/04 (Corten)
82	138	Stainless Steel Round Corner
83	145	Pipe Bend – Single , dia 48.3 (for hand rails)
84	146	Pipe bend – Multiple, dia 48.3 (for hand rails)
85	246	Hot-dip galvanizing of hand rail tubes and bends - 610 g / 800 g per sqm
86	247	Hot-dip galvanizing of hand rail tubes and bends – 900 g per sqm.
87	301	Welded Clevis
88	302	Hanger rod, tie rod, deck hanger rod
89	303	Hanger rod assy. with clevis
90	304	Scalloped Bar fabrication.
91	306	Temperature / Pressure tapping assy (CS) including machined components.
92	307	Temperature / Pressure tapping assy (AS) including machined components
93	309	Threaded clevis M20 to M27

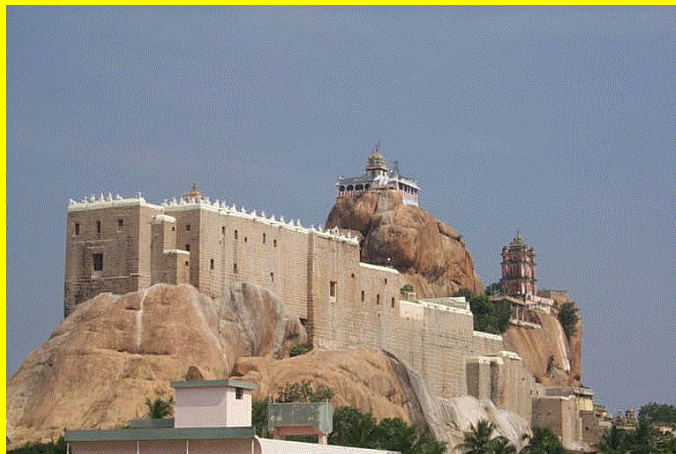
Sl. NO.	RS. NO.	DESCRIPTION
94	310	Threaded clevis M32 to M36
95	311	Threaded clevis M45
96	312	Hanger rod, Hanger rod assy with clevis, Tie rod, Tie rod assy, Deck hanger rod. Weight of these below 50 kg / No.
97	316	Retainer - A
98	317	Retainer - C
99	318	Screwed Piece, Suspension Bolts,Cap Assy.
100	319	Machining Components (weight less than 5 Kg.)
101	320	Washer plate, Buckstay corner plate, Buckstay link plate (All Pl 40 mm and above)
102	321	Fabrication of NMEJ frames.
103	322	Hand rails and Hand rail posts with painting.
104	323	Hand rails and Hand rail posts with hot dip Galvanising.
		NOTE: Description detailed above are only indicative and not exhaustive. However, while executing as per Drawing, the work content may vary.

ANNEXURE – “O”



BHARAT HEAVY ELECTRICALS LIMITED
(HIGH PRESSURE BOILER PLANT)
TIRUCHIRAPPALLI- 620 014

OUTSOURCING DEVELOPMENT




SUPPLIER REGISTRATION FORM

(INDIGENOUS)

ENCLOSED FORMS: -

1. Form No. OSOSTR01 -Organizational Information
2. Form No. OSQSTR01 -Quality System form
3. Form No. OSTCTR01 -Technical Competence form (GENERAL)

 OSOSTR 01 REV00	BHEL, TIRUCHIRAPPALLI - 620 014 OUTSOURCING DEVELOPMENT SUPPLIER REGISTRATION FORM (INDIGENOUS SUPPLIER)	PHONE: 2574629 FAX : 2520517 Email: vsridharan@bheltry.co.in
ORGANISATIONAL INFORMATION		
1.0 GENERAL INFORMATION : 1.1 NAME OF COMPANY: 1.2 DETAILS OF HEAD OFFICE: ADDRESS: TELEPHONE: FAX: E-MAIL: WEB SITE: 1.3 DETAILS OF FACTORY / WORKS: NAME OF THE WORKS/DIVISION: ADDRESS: TELEPHONE: FAX: E-MAIL: NOTE: Please attach separate sheets, if space available is inadequate.		FOR OFFICIAL USE
SUPPLIER'S AUTHORISED SIGNATORY		REVIEWING OFFICER

For BHEL use only: -

Score: Total/ Out of possible = / 3 = % Sr. No. 1.1, 1.2, 1.3 carry ONE mark each for complete answers.



ORGANISATIONAL INFORMATION	
<p>2.0 OWNERSHIP INFORMATION:</p> <p style="text-align: right;"><u>DOCUMENTS TO BE FURNISHED.</u></p> <p>2.1 GOVT. OF INDIA UNDERTAKING:</p> <p style="padding-left: 40px;">OR</p> <p>STATE GOVT. UNDERTAKING:</p> <p style="padding-left: 40px;">OR</p> <p>LIMITED COMPANY: MEMORANDUM & ARTICLES OF ASSOCIATION</p> <p style="padding-left: 40px;">OR</p> <p>PRIVATE COMPANY: MEMORANDUM & ARTICLES OF ASSOCIATION</p> <p style="padding-left: 40px;">OR</p> <p>CO-OPERATIVE SOCIETY: SOCIETY RULES & BYE LAWS</p> <p style="padding-left: 40px;">OR</p> <p>PARTNERSHIP FIRM: PARTNERSHIP DEED</p> <p style="padding-left: 40px;">OR</p> <p>PROPRIETORSHIP: PROFESSION TAX REGN. & MUNICIPAL REGN.</p> <p style="padding-left: 40px;">OR</p> <p>ANY OTHER (SPECIFY) :</p> <p>2.2 NATURE OF BUSINESS : (MANUFACTURING UNIT)</p> <p>2.3 YEAR OF ESTABLISHMENT :</p>	FOR OFFICIAL USE
SUPPLIER'S AUTHORISED SIGNATORY	REVIEWING OFFICER

For BHEL use only :-

Score: Total/ Out of possible = / 3 = %

Sr. No. 2.1, 2.2, 2.3, carry one mark each for complete answers



ORGANISATIONAL INFORMATION						
3.0	FINANCIAL INFORMATION	Year 1	Year 2	Year 3	Year 4	For Official use
		(In ascending order, in Lakhs of Rs.)				
3.1	NET WORTH (share capital +Reserves)					
	Growth over previous year (%)	-----				
3.2	LONG TERM DEBT / LOAN					
3.3	DEBT EQUITY RATIO					
	<div>Long term Debt (3.2)</div> <div>Net worth (3.1)</div>					
3.3	INVESTMENT IN:					
	Land & Building					
	Plant & Machinery					
	Other Fixed Assets					
3.4	NET CURRENT ASSETS					
	a) Cash on hand					
	b) Account receivable					
	c) Inventories					
	Total					
	CURRENT LIABILITY					
	a) Sundry creditors					
	b) Interest accrued but not due					
	c) Credit balance in sundry debtors					
	d) Other liabilities					
Total						
3.5	CURRENT RATIO					
	<div>Current assets {3.4(1)}</div> <div>Current liability {3.4(2)}</div>					
3.5	SALES					
	Growth previous year (%)					
3.6	PROFIT BEFORE TAX					
	Growth previous year (%)	-----				
3.7	PROFIT AFTER TAX					
	Growth previous year (%)	-----				
3.8	Whether the supplier has been referred to BIFR. (If so enclose details)					
3.9	Whether the supplier is potential sick company.(If so enclose details)					
3.10	WAGE SETTLEMENT DUE ON (date:)					
Copies of annual accounts (Balance sheet) for last four years along with audit report to be submitted. The details recorded above from the Balance sheet shall be highlighted in the Balance sheet.						
SUPPLIER'S Authorised Signatory					Reviewing Officer	
<p>For BHEL use only :- Score: Total/ Out of possible = ____/34=)____%</p> <p>Sr. No. 3.1 to Sr. No. 3.10 carry one mark each for completed answer and Balance 24 marks (maximum) are allotted as per Sr. No. 1 to 6 of Score Sheet</p> <p>Note: All the columns are required to be filled up. Each entry carries a mark. In case of details not filled up marks will not be awarded which may lead to rejection of application.</p>						



ORGANISATIONAL INFORMATION	
<p>4.0 REGISTRATION PARTICULARS :</p> <p>4.1 INCOME TAX PERMANENT ACCOUNT NO. : (ATTACH COPY OF CERTIFICATE)</p> <p>4.2 CENTRAL SALES TAX REGISTRATION NUMBER : (ATTACH COPY OF CERTIFICATE)</p> <p>4.3 STATE SALES TAX REGISTRATION NUMBER : (ATTACH COPY OF CERTIFICATE)</p> <p>4.4 EXCISE DUTY REGISTRATION NUMBER : (ATTACH COPY OF CERTIFICATE)</p> <p>4.5 ECC CODE : (ATTACH COPY OF CERTIFICATE)</p> <p>4.6 NATIONAL SMALL SCALE INDUSTRIES REGISTRATION NO. : (VALIDITY UPTO.....) (ATTACH COPY OF CERTIFICATE)</p> <p>4.7 SMALL SCALE INDUSTRIES REGISTRATION NO. : (VALIDITY UPTO) (ATTACH COPY OF CERTIFICATE)</p> <p>4.8 ANCILLARY STATUS RECOGNISED BY</p> <p>4.9 CREDIT RATING BY APPROVED AGENCIES, IF ANY</p>	FOR OFFICIAL USE
<p>SUPPLIER'S AUTHORISED SIGNATORY</p>	REVIEWING OFFICER

For BHEL use only :-

Score: Total/ Out of possible = / 8 = %

Sr. No. 4.1 to 4.8 - carry one mark each for complete answer.

**ORGANISATIONAL INFORMATION****5.0 ORGANSATIONAL INFORMATION :**

5.1 NAME OF CHIEF EXECUTIVE/PROPRIETOR/PARTNER & ADDRESS:

FOR
OFFICIAL
USE

5.2 OFFICIAL TO BE CONTACTED FOR CLARIFICATION :

NAME

DESIGNATION

ADDRESS

TELEPHONE NO.

FAX NO.

EMAIL:

5.3 TOTAL ORGANISATIONAL STRENGTH :

(ATTACH ORGANISATION CHART)

		GRADUATES	DIPLOMA	SKILLED	NON-SKILLED
ADMINISTRATION & COMMERCIAL					
ENGINEERING					
TECHNOLOGY					
MANUFACTURING					
QUALITY	GENERAL *				
	NDT **				
MAINTENANCE					
SITE MANAGEMNT					
OTHERS					
TOTAL					

SUPPLIER'S

AUTHORISED SIGNATORY

REVIEWING
OFFICER* **Qualification of Personnel as per AWS/ASNT/ISNT.**** **Level-II/MPI/LPI Testing Personnel****For BHEL use only :-**

Score: Total / Out of possible = / 3 = %

Sr. No. 5.1 to 5.3 carry one marks each for complete answer.



ORGANISATIONAL INFORMATION	
<p>5.4 (A) STANDBY ARRANGEMENT FOR POWER :</p> <p>(GIVE DETAILS) DIESEL / GENERATOR</p> <p>(B) CONNECTED LOAD TO EB :</p>	FOR OFFICIAL USE
SUPPLIER'S AUTHORISED SIGNATORY	REVIEWING OFFICER

For BHEL use only :-

Score: Total/ Out of possible = / 6 = %

Sr. No. 5.4 to 5.6 carry one mark each for completed answer and

Balance 3 marks (maximum) are allotted as per Sr. No. 7 of Score Sheet

**ORGANISATIONAL INFORMATION**

6.0 PRODUCTS / FABRICATION FOR WHICH REGISTRATION IS APPLIED FOR:						FOR OFFICIAL USE
SL.NO.	DESCRIPTION	Sparable Capacity to BHEL in MT	Mfg. Std IS	Lead time	Remarks	
01)	Structural Fabrication					
02)	Auto Weld					
03)	Column Fabrication and Assembly					
04)	Duct fabrication assembly					
05)	Blasting facility					
6.1 List of present customer with name & address for similar work for which registration is being sought and with whom you have continuous business and delivered 300 – 500 MT per month (Attach documentary evidence). SUPPLIER'S AUTHORIZED SIGNATORY						REVIEWING OFFICER

For BHEL use only :-

Score: Total/ Out of possible = / 6 = %
 Sr. NO. 6.0 & 6.1 carry one mark each for completed answer
 Balance 4 maximum as per Sr. No. 8 of Score Sheet.

**ORGANISATIONAL INFORMATION****7.0 LIST OF MANUFACTURING & HANDLING FACILITIES:****FOR
OFFICIAL
USE****(A) STRUCTURAL FABRICATION**

SL. NO.	DESCRIPTION & SPECIFICATION OF MACHINE & ITS MAKE	AREA / SIZE & CAPACITY		REMARKS
		MIN REQD	NO. INSTALLED	
01	(A) A FRAME	10 MT		
	(B) LIFTING TACKLES	10 MT		
	© CRANES: MOBILE OVERHEAD	10 MT		
02	OPEN AREA:	1 ACRE		
03	GRINDING M/C	2 NOS.		
04	GAS CUTTING M/C	2 NOS.		
05	WELDING M/C	5 NOS.		
06	DRILLING / LATHE / ETC.	1 NO. EACH		
07	BAKING OVENS	1 NO.		
08	IT FACILITY	2 PCs with E-Mail connectivity		
SUPPLIER'S AUTHORISED SIGNATORY For BHEL use only:- Score: Total / Out of possible = / 8 = % Sl. No. 7.0 carry one mark for complete answer. Balance 3 marks maximum as per Sl. No. 9 of Score Sheet				

**REVIEWING
OFFICER**

**ORGANISATIONAL INFORMATION**

8.0 LIST OF MANUFACTURING & HANDLING FACILITIES: (B) AUTOWELD					FOR OFFICIAL USE
SL. NO.	DESCRIPTION & SPECIFICATION OF MACHINE & ITS MAKE	AREA / SIZE & CAPACITY		REMARKS	
		MIN REQD	NO. INSTALLED		
01	AUTO WELDING M/C	1 NO.			
	(A) CAPACITY	800 AMPS			
	(B) MAKE / SUPPLIER				
	© YEAR				
02	FLUX BAKING OVEN	1 NO.			
	MAKE				
03	COVERED SHED AREA	14 MTRS.			
04	POWER	100 HP			
05	CRANES: MOBILE / OVERHEAD				
	(A) CAPACITY	20 TON			
	(B) TYPE				
	© SPAN	10 MTR.			
06	OPEN AREA: (TRACKLENGTH)	20 MTR			
07	GRINDING M/C	2 NOS.			
07	GAS CUTTING M/C	1 NO.			
09	WELDING M/C	2 NOS.			
10	DRILLING /ETC.	1 NO.			
11	PRE HEATING / POST HEATING EQUIP.	1 NO.			
	(A) TYPE				
	(B) MAKE				
12	LEVEL II / MPI / LPI TESTING PERSONNEL	1 NO.			
13	MPI UNIT	1 NO.			
14	LPI KIT	1 SET			
15	IT FACILITY	2 PCs with E-Mail connectivity			
SUPPLIER'S AUTHORISED SIGNATORY					REVIEWING OFFICER
For BHEL use only:- Score: Total / Out of possible = / 15 = % Sl. No. 7.0 carry one mark for complete answer. Balance 3 marks maximum as per Sl. No. 9 of Score Sheet					



FOR
OFFICIAL
USE

SL. NO.	DESCRIPTION & SPECIFICATION OF MACHINE & ITS MAKE	AREA / SIZE & CAPACITY		REMARKS
		MIN REQD	NO. INSTALLED	
01	AUTO WELDING M/C	1 NO.		
	(A) CAPACITY	800 AMPS		
	(B) MAKE / SUPPLIER			
	© YEAR			
02	FLUX BAKING OVEN WITH CALIBRATION	1 NO.		
	MAKE			
03	COVERED SHED AREA	15 MTRS.		
04	POWER	100 HP		
05	CRANES: MOBILE / OVERHEAD			
	(A) CAPACITY	25 MT		
	(B) TYPE			
	© SPAN	10 MTR.		
06	OPEN AREA: (TRACK LENGTH)	85 MTR		
07	GRINDING M/C	2 NOS.		
08	GAS CUTTING M/C	2 NO.		
09	WELDING M/C	4 NOS.		
10	DRILLING / ETC.	1 NO.		
11	PRE HEATING / POST HEATING EQUIP.	1 NO.		
	(A) TYPE			
	(B) MAKE			
12	IT FACILITY	1 PC with E-Mail connectivity		
<p>SUPPLIER'S AUTHORISED SIGNATORY</p>				
<p>REVIEWING OFFICER</p>				

For BHEL use only:-

Score:

Total / Out of possible = / 12 = %

Sl. No. 7.0 carry one mark for complete answer.

Balance 3 marks maximum as per Sl. No. 9 of Score Sheet

**ORGANISATIONAL INFORMATION**

10.0 LIST OF MANUFACTURING & HANDLING FACILITIES: (D) DUCTS					FOR OFFICIAL USE
SL. NO.	DESCRIPTION & SPECIFICATION OF MACHINE & ITS MAKE	AREA / SIZE & CAPACITY		REMARKS	
		MIN REQD	NO. INSTALLED		
01	(A)A FRAME	10 MT			
	(B) LIFTING TACKLES	10 MT			
	© CRANES: MOBILE	10MT			
02	OPEN AREA	2 ACRE			
03	POWER	100 HP			
04	GRINDING M/C	2 NOS.			
05	GAS CUTTING M/C	1 NO.			
06	PLATE BENDING M/C	1 NO.			
07	WELDING M/C	4 NOS.			
08	DRILLING M/C	1 NO.			
09	LPIKIT	1 SET			
10	IT FACILITY	1 PC with E-Mail connectivity			
SUPPLIER'S AUTHORISED SIGNATORY					REVIEWING OFFICER
For BHEL use only:- Score: Total / Out of possible = / 10 = % Sl. No. 7.0 carry one mark for complete answer. Balance 3 marks maximum as per Sl. No. 9 of Score Sheet					



ORGANISATIONAL INFORMATION					
8.0. LIST OF MEASURING FACILITIES, TESTING EQUIPMENT AND INSPECTION FACILITIES.					
SL. NO	DESCRIPTION EQUIPMENT	SIZE, RANGE CAPACITY ACCURACY	MODEL / MAKE	LAST DATE OF CALIBRATION	QTY
01	MEASURING TAPE				
02	STRAIGHT EDGE				
03	VERNIER CALIPERSE				
04	FILLET GAUGES				
05	NDE KITS (MPI / LPI)				
06	THERMAL CHALKS				
07	HEAT TREATMENT RECORDER				
08	TAPER GAUGE				
09	DIGITAL D-METRE				
10	PAINT COAT METRE				
SUPPLIER'S AUTHORISED SIGNATORY					

FOR OFFICIAL USE

REVIEWING OFFICERS

For BHEL use only :-

Score:

Total/ Out of possible = / 10 = %

Sr. No. 8.0 carry one mark for complete answer

Balance 3 marks maximum as per Sr. No. 10 of Score Sheet



ORGANISATIONAL INFORMATION	
<p>9.0 OTHER PARTICULARS :</p> <p>9.1 IF THE COMPANY IS ALREADY IN BUSINESS WITH ANY OF BHEL UNITS, GIVE :</p> <p>9.1.1 BHEL UNIT'S NAME :</p> <p>9.1.2 REGISTRATION NO. :</p> <p>9.1.3 ITEMS FOR WHICH REGISTERED & THEIR SPEC. (Attach at least copies of 3 Pos. executed successfully with inspection release note)</p> <p>9.2 IS THE COMPANY APPROVED BY NTPC / NPC / EIL / DGS&D / RAILWAYS / IBR / LLOYDS ETC. (ATTACH DOCUMENTARY EVIDENCE)</p> <p>9.2.1 IS THE COMPANY AN ISO 9000 APPROVED (ENCLOSE CERTIFICATE)</p> <p>9.2.2 IS THE COMPANY AN ISO 14000 APPROVED (ENCLOSE CERTIFICATE)</p> <p>9.3 TECHNICAL COLLABORATION : (FOREIGN OR INDIGENOUS) (ATTACH DOCUMENTARY EVIDENCE)</p> <p>9.4 FUTURE PLANS OF EXPANSION : (GIVE DETAILS)</p> <p>9.5 NAME & ADDRESS OF CONCERN(S) HAVING SUBSTANTIAL INTEREST IN (NAME OF THE OTHER COMPANY) (COMMON DIRECTOR, PARTNER, OWNER ETC.)</p>	FOR OFFICIAL USE
<p>SUPPLIER'S AUTHORISED SIGNATORY</p>	REVIEWING OFFICERS

For BHEL use only :-

Score: total /out of possible = / 10 = %

Sr. No. 9.1, 9.2, 9.2.1, 9.2.2, 9.3, 9.4 & 9.5 carry one mark each for complete answer

Balance 3 mark (maximum) as per Sr. No. 11 of Score Sheet



ORGANISATIONAL INFORMATION	
<p>9.6 DIRECTORS/PARTNERS, IF RELATED TO ANY BHEL EMPLOYEE.</p> <p>NAME : STAFF NO. : DESIGNATION : DEPARTMENT : RELATIONSHIP :</p> <p>9.7 IF ANY EX-BHEL PERSONNEL IS EMPLOYED BY THE COMPANY, MENTION HIS / HER DETAILS OF LAST POSTING.</p> <p>NAME : STAFF NO. : DESIGNATION : DEPARTMENT : DATE OF LEAVING SERVICE :</p> <p>9.8 COMPANY'S WEEKLY HOLIDAYS : WORKS OFFICE</p> <p>9.9 LIST OF ENCLOSURES :</p>	<p>FOR OFFICIAL USE</p>
<p>SUPPLIER'S AUTHORISED SIGNATORY</p>	<p>REVIEWING OFFICERS</p>

For BHEL use only :-

Score:

Total/ Out of possible = / 4 = %

Sr. No. 9.6 to 9.9 carry one mark each for complete answer



ORGANISATIONAL INFORMATION	
<p>I / WE give the undertaking that BHEL drawings & Specifications shall not be used in any way detrimental to the Interest of BHEL and / or for supply any material, product or Services directly or indirectly to any other customers.</p>	FOR OFFICIAL USE
SUPPLIER'S AUTHORISED SIGNATORY	REVIEWING OFFICERS

**ORGANISATIONAL INFORMATION****10. PERCEPTION OF SUPPLIER'S CHIEF EXECUTIVE ABOUT BHEL.**

- Here BHEL expects the chief executive's opinion about dealing with BHEL.
- Whether he is willing to work with BHEL on long term contract basis with a time-bound target for improvement in quality of the product and reduction in prices and what support he expects from BHEL towards achieving this goal.
- Any other aspects which would be beneficial for the improvement in BHEL's performance.

(USE SEPARATE SHEET IF REQUIRED)

NOTE: This sheet is for BHEL's information only and no numerical rating is allotted for this.

FOR
OFFICIAL
USE

SIGNATURE OF CHIEF EXECUTIVE

REVIEWING
OFFICERS

 OSQSTR01 REV00	BHEL, TIRUCHIRAPPALLI - 620 014 OUTSOURCING DEVELOPMENT SUPPLIER REGISTRATION FORM (INDIGENOUS SUPPLIER)	PHONE: 2574629 FAX : 2520517 Email: vsridharan@bheltry.co.in
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Assessment Criteria for Quality system

The following pages contain questions that the supplier should use for his self-audit and BHEL should use to evaluate in detail the supplier's process controls, inspections, tests; incoming material controls etc.

A numerical rating is to be given alongside each question on a scale of 0-3 considering the following guidelines:

- 0 -- for non- compliance.
- 1 -- where the system in question exists in a rudimentary stage.
- 2 -- where the system in question exists with minimal discrepancies.
- 3 -- where the system in question is in a mature stage (i.e. meets all requirements)

Each question is to be evaluated on three separate aspects, namely: the written procedure, the system-in-effect and adequate record keeping.

For each section the points obtained is translated into a numerical percentage.

**I. INCOMING MATERIAL CONTROL :**

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. A formalized supplier rating, evaluation, certification programme has been established wherein quality performance is one of the Criteria.				
2. * Incoming shipment is verified prior to storage Or use.				
Total out of a possible = / 18 = _____%				

II. PROCESS CONTROL :

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. *Work instructions are documented, updated & Followed by workers.				
2. *Required tools, jigs, fixtures ETC. are identified and Used.				
3. Procedure for qualification and revalidation of qualification of workers exists such as: - Welders - NDT Personnel				
4. Testing facilities exists for mechanical/ Chemical / electrical / NDT tests. Trained Personnel are carrying out the tests and records are kept.				
5. Preventive maintenance activities are performed on critical machines & records kept.				
6. Material identification and acceptance status is maintained throughout the manufacturing process & during storage.				
7. *Availability of updated drawings / Specification at workplace				
8. *Preservation, Painting & Packing procedure exists				
Total / out of a possible = / 72 = _____%				

**III. CONTROL OF NON-CONFORMANCE**

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. * Record of Rework/ Rectification is kept.				
2. System of review and analysis of repeated failures and their prevention in future.				
Total / out of a possible = / 18 = %				

IV. CONTROL OF MEASURING AND MONITORING DEVICES

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. System of calibration of Gauges, Measuring Tape, Fixtures & instruments ETC.exists				
2. Master Gauges/Standards are traceable to recognized national standards.				
Total / out of possible = / 18 = %				



V. CUSTOMER-SUPPLIER COMMUNICATION :				
	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. Supplier is conversant with various engineering standards (IS, BS, ASME etc.)				
2. Supplier is capable of understanding BHEL's: (A) Purchase Specifications (B) Drawing / Design Practices (C) Quality Requirements				
3. * Tender documents are reviewed with reference to customer requirement both technically & from delivery point of view. In case of deviation, in technical specifications and delivery conditions, the deviations are identified and clearly spelt out in offer.				
4. * After receipt of order, acknowledgement is sent followed by order acceptance.				
5. * System of manufacturing Planning exists; periodical progress review is conducted and Communicated to the customer.				
6. System of submission of documents like: (A) Invoice. (B) Packing list. (C) Test Certificate. (D) Inspection Data				
7. Organisation of after sales service and Response time for attending complaints.				
Total / out of a possible = / 63 = _____%				

**VI. CONFORMANCE TO SAFETY REQUIREMENTS:**

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. Adequate safety precautions are being taken in Plant.				
2. * Provision of adequate safety of Customer's inspection staff during inspection by customer's representative				
Total / out of a possible = / 18 = _____%				

VII. CUSTOMER SATISFACTION:

	Procedure 0-3	System in Effect 0-3	Records 0-3	Remarks
1. Determination of satisfaction in place through direct measures through surveys / focus groups.				
2. Determination of satisfaction through indirect measures" - Response time is measured and target set for implementation. - Resolution time is measured and target set for improvement - Percentage of on-time delivery and target set for improvement. - Percentage reduction in Customer complaints and target set for improvement.				
Total / out of a possible = / = _____%				

 OSTCTR01 REV00	BHEL, TIRUCHIRAPPALLI - 620 014 OUTSOURCING DEVELOPMENT SUPPLIER REGISTRATION FORM (INDIGENOUS SUPPLIER)	PHONE: 2574629 FAX : 2520517 Email: vsridharan@bheltry.co.in
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TECHNICAL COMPETENCE FORM

TECHNICAL COMPETENCE : (Job Specific: For jobs where design and technology is of BHEL)

	0-3 MARKS
1 * Supplier understands the product specification.	
2 Supplier understands the inspection requirements	
3 * Supplier has process capability to achieve the product specification / dimensional requirement	
4 Supplier has experienced man-power to carry out the job	
TOTAL / OUT OF A POSSIBLE / 12 = _____%	

Here:

Score of 0 indicates " No capability"

Score of 1 indicates, " Requires continuous technical support of BHEL during Execution of job"

Score of 2 indicates " Occasional technical support from BHEL"

Score of 3 indicates, " Can handle BHEL's job without any technical Assistance. "

ENCLOSURE:

PLEASE READ THIS INSTRUCTIONS CAREFULLY BEFORE FILLING REGISTRATION FORM.
Improper filling or incomplete forms may lead to rejection of your registration form.

FILLING INSTRUCTIONS AND CHECKLIST FOR ENCLOSURES
(INDIGENOUS SUPPLIERS)

1. Wherever information regarding financial details or registration number details asked, please fill up the details in the form. Do not write 'COPY ATTACHED' or 'REFER ANNEXURE'.
2. Do not leave any clause as blank. Indicate 'YES', 'NO' or 'NOT APPLICABLE'.
3. Attach copy of applicable documents for clause 2.1
4. Page number 03 of 16 to be filled completely and attach copy of last **FOUR years audited balance sheets**.
5. Fill up and attach copy of Income Tax PAN card with latest income tax clearance certificate. (Clause 4.1)
6. Fill up and attach copy of CST registration certificate. (Clause 4.2)
7. Fill up and attach copy of State sales tax registration certificate (clause 4.3)
8. Fill up and attach copy of Central excise registration certificate (clause 4.4)
9. Fill up and attach copy of ECC code certificate (clause 4.5)
10. Fill up and attach copy of NSSI registration Certificate, if applicable (clause 4.6).
11. Fill up and attach copy of SSI registration Certificate, if applicable (clause 4.7).
12. Fill up and attach copy of Organisation chart (clause 5.3)
(All columns to be filled up for clause 5.3)
13. Attach copy of document proof for clause 6.1.
14. **Clause 9.1.3** (If applicable) Fill up and attach copies of registration certificates of other BHEL units. Attach at least 3 copies of POs executed successfully with copies of release notes.
15. **Clause 9.2** Fill up and attach documentary proof (If applicable)
16. **Clause 9.2.1** Fill up and attach copy of ISO 9000 certificate with current validity (If applicable)
17. **Clause 9.2.2** Fill up and attach copy of ISO 14000 certificate (If applicable)
18. **Clause 9.3** Fill up and attach documentary evidence for foreign/Indigenous collaboration (if applicable)

Filing instruction for Quality System forms / TECHNICAL COMPETENCE FORM

Format No. OSQSTR01 (Pages 01-05) and Format No. OSTCTR01 (Page 01)

The detailed filling instruction is given in **Page 01** of 05 of format **OSQSTR01**. Hence **read this page carefully before filling the forms**. Columns in Pages 02,03,04 and 05 of format OSQSTR01 and Page 01 of format OSTCTR01 to be filled **NUMERICALLY (0 to 3)** as **applicable** as per instruction given in Page 01 of OSQSTR01. **Do not leave any column blank.**

For any clarification regarding filling up of the registration form you may contact

V.SRIDHARAN
DEPUTY GENERAL MANAGER
OUT SOURCING

Phone: 0431-2574229
Fax: 0431-2520517
Email: vsridharan@bheltry.co.in



SCORE SHEET

NOTE: SL. No & PAGE No. INDICATED IN THIS FORM ARE REFER TO ORGANISATIONAL INFORMATION FORM NO. VORTR01

ORGANISATIONAL SOUNDNESS (SCORING CRITERIA)

Each question should be answered. No question is to be left unanswered. If any of the questions is not relevant to your organisation then mention so against that question (but do not leave the question unanswered).

Each question answered carries (1) mark. Questions left unanswered will get (0) score

Assessment Criteria

				Marks
1.	Share Capital Refer Sl. No.3.1 of Page 3 (Average of Three Year to be Worked out)	Growth over the previous year	More than 10%	4
		Growth over the previous year	5 – 10%	3
		Growth over the previous year	Less than 5%	1
2.	Sales Refer Sl. No. 3.5 of Page 3	Growth over the previous year (recent 2 years)	More than 10%	4
		Growth over the previous year	5-10%	3
		Growth over the previous year	Less than 5% 0 or Negative	1 0
3.	Debt Equity Ratio	1: 1		4
		1: 1.1 upto 1.5		3
		1: 1.6 & above		1
4.	Current Ratio	2: 1		4
		Less than 2 upto 1.1: 1		3
		1: 1		1
5.	Profit before tax Refer Sl. No. 3.6 of Page 3	Growth over the previous year	More than 10%	4
		Growth over the previous year	5 – 10%	3
		Growth over the previous year	Less than 5%	1
6.	Profit after tax Refer Sl. No. 3.7 of Page 3	Growth over the previous year	More than 10%	4
		Growth over the previous year	5 – 10%	3
		Growth over the previous year	Less than 5%	1

Sl. No. 3.8 of Page 3 - if referred to BIFR	-	(-) 24	
Sl. No. 3.9 of Page 3 - if potentially SICK	-	(-) 12	
7. For supplier having standby arrangement of power (Sl. No. 5.4 of Page 6)	-	3	
8. Supplier having continuous business for more than 3 years. (Sl. No. 6.1 of Page 7)			
Beyond 3 customers	-	4	
Upto 3 customers	-	3	
No customer	-	0	
9. Manufacturing facilities (Sl. No. 7 of page 8 - 11)			
Supplier having adequate facilities	-	3	
Supplier having substantial facility	-	2	
Supplier having not adequate facilities	-	0	
10. Measuring and Testing Facilities (Sl. No. 8 of Page 12)			
Supplier having Adequate facilities	-	3	
Substantial measuring facilities	-	2	
Inadequate facilities	-	0	
11. If the answer to Question No. 9.2.1 of Page 13 is yes If the answer to Question No. 9.2.1 of Page 13 is No	-	3	0

SUPPLIER WILL BE CATEGORISED AS:

Supplier Category	Percentage
OS1	75% and more
OS2	60% to 74%
OS3	Less than 60%

QUALITY SYSTEM RATING

<u>SURVEY SUMMARY:</u>	SCORE
Incoming Material Control Rating	-----%
Process Control Rating	-----%
Control of Non- Conformance	-----%
Control on measuring & monitoring devices	-----%
Customer- Supplier Communication	-----%
Conformance to Safety Requirements	-----%
Customer Satisfaction	-----%
Total	-----%
Overall Rating on Quality System Score = Total / 7 =	-----%

	Rating	Basis
01	Q1- Category supplier	Overall system rating above 90% to 100%,
02	Q2 - Category supplier	Overall system rating 80% to 90.
03	Q3 - Category supplier	Overall system rating above 70% and less than 80.

Note: If the reply to S.No. 9.2.1 Page 13 (organisational information FORM- OSORTR01) is 'Yes' then the supplier's quality system rating will be Q1.

TECHNICAL COMPETENCE RATING :

The score on Technical Competence is be considered separately as a third independent criteria while considering a supplier for enlistment. The supplier will fall under TC1, TC2 or TC3 category in the Technical Competence Rating as per following criteria.

<u>Rating</u>	<u>Basis</u>
TC1 - Category supplier	Technical competence rating above 90%.
TC2 - Category supplier	Technical competence rating 80-90%.
TC3 - Category supplier	Technical competence supplier rating above 70% and less than 80%.

----- 0 -----

Assesment Rating for Manufacturing Organisations

Organisational Soundness.	Quality System	Technical Competence	Catagory of Vender	Remark
OS1	Q1	TC1	Excellent	Recommended for enlistment. Supplier can be indentified for longterm relationship partnership status , self certification status can be consideredbased on performance.
OS1 OS2	Q1 Q2	TC1	Very Good	Recommended for enlistment, supplier can be considered for rate contract & be given system support to become Q1 in a time bound schedule.
OS1 OS2	Q1 Q2	TC2	Good	Recommended for trial order only. Suplier be advised to become 'Very Good' in a time bound schedule.
OS1 OS2	Q3	TC1	Fair	Recommended for Trial order. .
OS3	Q1	TC1	Poor	Supplier will be provided with a feedback on areas of improvement.
OS1	Q1 Q2	TC3	Poor	--do--
OS1	Q3	TC2	Poor	--do--
OS1	Q3	TC3	Poor	--do--

<u>Supplier Category</u>		<u>Marks Obtained</u>
Organisational Soundness	OS1	above 75%
	OS2	60 – 75%
	OS3	Less than 60%
Quality System Survey & Technical Competence Survey	Q1 & TC1	above 90%
	Q2 & TC2	80% to 90%
	Q3 & TC3	70% to 80%

Attitude of Chief Executive of Supplier.

The attitude of Chief Executive of supplier towards BHEL would largely influence the business dealing. It is recommended that the evaluation team must meet the chief executive of supplier and assess his attitude. His attitude can be judged on following aspects.

- How he receives the BHEL team:		
a) He is informal during discussions	<input type="radio"/>	<input type="radio"/>
b) He is formal during discussions	<input type="radio"/>	<input type="radio"/>
- How much importance he gives to BHEL		
a) He feels proud to deal with BHEL	<input type="radio"/>	<input type="radio"/>
b) He treats BHEL as one amongst many	<input type="radio"/>	<input type="radio"/>
- How he feel about BHEL w.r.t. BHEL's competitors to whom he is a supplier		
a) He feels BHEL is better than its competitors	<input type="radio"/>	<input type="radio"/>
b) He does not express clearly his impression on BHEL, vis-à-vis its competitors	<input type="radio"/>	<input type="radio"/>
- How often during the conversation he uses legal terms or contractual terms		
a) Rarely	<input type="radio"/>	<input type="radio"/>
b) Often	<input type="radio"/>	<input type="radio"/>
- Is he willing to go in for long term contract or his approach towards BHEL is only to get himself enlisted so as to use his enlistment for business with others		
a) Enlistment for long term contracts	<input type="radio"/>	<input type="radio"/>
b) Enlistment for business with others.	<input type="radio"/>	<input type="radio"/>

The assessment of the visiting team should be entered with a tick (✓). If the ticks appear in majority in the left hand circles, that would indicate a positive attitude towards BHEL. A majority of ticks in the right hand circles would indicate a negative attitude towards BHEL and we should give trial orders to him before going in for rate contracts even if his rating is 'Excellent'.