






BHEL- ISG  Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

**TECHNICAL ENQUIRY SPECIFICATION FOR CHP
MECHANICAL
SYSTEM DRAFTING & DRAWING SERVICES**

For


**Telangana Super Thermal POWER PROJECT
(Phase-I: 2 X 800 MW)
NTPC**

	Prepared By	Checked by	Approved by
Mechanical	 Mallikarjun Nayak	 R.S.Pujari	 V.Sahadevan

BHEL- ISG  Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

CONTENTS

Sl. No.	DESCRIPTION	SHEET No.		
1.0	PROJECT INFORMATION	03	of	07
2.0	BROAD SCOPE OF SERVICES	03	of	07
3.0	INPUT DATA BY BHEL-ISG	05	of	07
4.0	EXCLUSIONS	05	of	07
5.0	TIME SCHEDULE FOR COMPLETION OF ACTIVITIES	06	of	07
6.0	NOTE FOR BIDDER'S CONFIRMATION	07	of	07
7.0	LIST OF ENCLOSURES	07	of	07

 BHEL- ISG बि.एच.ई.एस. Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16


1.0 PROJECT INFORMATION:

Present proposal is for setting up 2 x 800 MW Telangana Thermal Power Station, Phase-1 for NTPC Ltd. with all the facilities as specified in the NIT of NTPC prepared for their project. General information related to the project and site is available in ANNEXURE-A enclosed along with this enquiry specification.

2.0 BROAD SCOPE OF SERVICES:

The bidder shall ensure optimum design of the systems leading to saving in cost for BHEL-ISG (mechanical, civil and structural point of view) and leading to saving in execution time of the project, meeting end customer's technical requirement and relevant IS codes/ international codes / good construction practices. The scope includes

- Preparation of detailed GA drawings & load data drawings of conveyors, transfer points, other drawings like take-up towers, etc.; and other drawings as per the scope mentioned for Telangana Super Thermal power project as per the NIT specifications, NIT drawings and relevant standards.
- Belt conveyor components shall be selected based on the relevant Indian standards and shall be designed as per NIT specifications. Proper care is to be taken in the selection of individual components considering the environmental conditions at site and the expected life of all the components and their respective duties as specified in NIT specification.

 BHEL- ISG बि एच ई एस BHEL Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

2.1 SCOPE OF SERVICES

2.1.1 General Arrangement and load data drawings with bill of material for the following:


- All conveyors
- All buildings and Junction Towers
- Vertical Gravity Take ups with counter weight
- Drive Assembly
- Any other additional required for completion of the system engineering.

2.1.2 Bidder will render various technical services to BHEL-ISG involving provision of documents for Mechanical work:

1. The drawings included in the bidding document provide a general idea about the work to be performed under the scope of this contract. These are preliminary drawings for bidding purposes only and are by no means the final drawings or show the full range of the work under the scope.
2. For the convenience in communication/sharing of information, the bidder's manpower shall be stationed in Bangalore. As per the requirement, the manpower shall be deputed to ISG office Bangalore to execute the job. The minimum manpower to be engaged on this project (for both GA & detailed fabrication drawings) is as shown below.

Draftsman - 2 No's and Engineer – 1 No.

3. All the drawings shall be prepared as per the NIT specifications and latest relevant standards.
4. For conveyors the belt width considered is 1800mm at 3.2m/sec speed and design capacity of 2640tph.
5. Drawings prepared by the bidder shall be subject to the approval of NTPC/Owner's engineer and their consultant. Customer or consultant will offer comments and corrections and bidder is responsible for incorporating the same (related to layout and arrangement) and getting the final approval from end customer.
6. Bidder is expected to bring to the notice of BHEL-ISG any aspect of Customer Specification, which is at variance with codal provisions and Standard Practice. It is upto BHEL-ISG to consider the same and give a decision before bidder proceeds with further Engineering.

 BHEL- ISG बि.एच.ई.एस Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

7. Bidder shall study the general plant layout drawing with coordinates of roads, buildings and facilities, piping/cable corridors, pipe and cable trestles and diversion roads and drains, equipment lay down areas etc.
8. Bidder shall tentatively indicate drive equipment details from manufacturers' catalogues and show the drive arrangement accordingly in buildings drgs. at conveyor discharge locations.
9. Preparation of as-built drawings incorporating all revisions.

3.0 INPUT DATA BY BHEL-ISG


This shall include but not be limited to the following information:

- i. NTPC's NIT specifications shall be binding over and above codal and statutory requirements unless written confirmation from BHEL is obtained.
- ii. Latest Plot plan and flow diagram. These are not final and there may be some changes in these drawings. The same shall be taken care by the bidder without any extra cost to BHEL.
- iii. For general specifications bidders to follow NIT specifications of NTPC – Telangana Super Thermal power Project (Phase-I).
- iv. Profile drawings of TP's & conveyors.
- v. Conveyor power calculations
- vi. Drive selection for conveyors, Flap gates and trippers.
- vii. Pulley shaft calculations and sizing
- viii. Load data calculations

Any extra input data if required shall be furnished to the bidder later to serve the mutually agreed work schedule.

4.0 Exclusions

1. All electrical, instrumentation design & drawings.
2. Calculations and equipment selections
3. Duct layouts for DE system
4. Piping layouts for DS system
5. Cable routing
6. All Utilities
7. Fire Fighting

 BHEL- ISG Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

8. All civil designs & drgs.
9. All types of idlers & brackets fabrication drgs.
10. All types of pulleys.
11. All types of scrapers.
12. All types of gates & flow dividers.
13. All Civil design & drgs
14. All structural design & drgs

However bidder to show the above equipment and utilities in GA drawings of conveyors, transfer points and buildings indicatively.

5.0 TIME SCHEDULE FOR COMPLETION OF ACTIVITIES


First submission of all the GA drawings shall be completed within 60 days from the date of LOI. And complete engineering with customer approval of all the drawings shall be completed within 12 months from the date of LOI (except for as-built drgs.).

All the drawings shall be submitted with BHEL-ISG template only. And the drawing should not carry bidder's name anywhere.

All drawings & documents (both soft & hard copies) shall consist signatures of 'Prepared by', 'Checked by' & 'Approved by' as required. All soft copies shall be transmitted by bidder through E-mail. In addition, the soft copies shall be submitted in consolidated groups at a suitable interval by bidder on CDs during the course of execution of project.

Some of the drawings may undergo many revisions during concurrent engineering, which shall be carried out without any additional cost.

A drawing submission schedule in line with contract schedule which consists of dates for input data from BHEL and drawing submission dates by vendor shall be prepared between successful bidder and BHEL after the award of order. Any failure in adherence of the schedule after receiving inputs from BHEL shall be treated as failure of contract schedule on the part of successful bidder.

 BHEL- ISG Bangalore	Technical Enquiry Specification - Mechanical Drawing & Drafting Services for Coal Handling System for 2x800 MW Telangana Super Thermal Power Project	Document no.: IS-1-15-2003/001
	Customer : NTPC	Rev. No.: 0 Dt: 20/09/16

6.0 Note for Bidder's Confirmation

1. Bidder to note that list above is not exhaustive and any work required for completion of the system shall also be in the scope of the bidder.
2. Bidder shall submit the signed and stamped copy of all the pages which constitutes this technical enquiry specification signed by authorized signatory and clearly mentioning each clause under following two categories to avoid any ambiguity in scope understanding & the scope division as a technical offer during bidding.
 - a. "accepted without deviation and considered in scope of work"
 - b. "Not considered in scope of work".
3. Bidder to note "no deviation" from the enclosed NIT specifications shall be acceptable unless and until written approval from customer BHEL / NTPC has been accorded.

7.0. LIST OF ENCLOSURES:

Following enclosures (enclosed in soft form) is an integral part of this technical enquiry and must be signed and stamped and submitted along with the offer:

1. Annexure-001- NTPC NIT DOCUMENT NO. CS-9591-101-2, PART-B
2. Annexure-002-CLARIFICATIONS, AMENDMENTS AND MINUTES
3. Annexure-003-DRAWINGS OF CHP CONSISTING OF LATEST PLOT PLAN AND FLOW DIAGRAM.