



VOLUME – IA  
Part I & II  
TECHNICAL  
CONDITIONS OF  
CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



## CONTENTS

SI no	DESCRIPTION	Chapter	No. of Pages
<b>Vol I A</b>	<b>Part-I: Contract specific details</b>		
1	Project Information	Chapter-I	1
2	Scope of works	Chapter-II	4
3	Facilities & Consumables in the scope of Contractor / BHEL (Scope Matrix)	Chapter-III	5
4	T&Ps and MMEs to be deployed by Contractor & BHEL	Chapter-IV	3
5	Void	Chapter-V	-
6	Time Schedule	Chapter-VI	1
7	Terms of Payment	Chapter-VII	2
8	Taxes and Duties	Chapter-VIII	2
9	Bill of Quantity (BOQ)	Chapter-IX	3
10	General	Chapter-X	11
11	Progress of work	Chapter-XIV	2
<b>Vol IA</b>	<b>Part-II: Technical specifications</b>		
1	Corrections / Revisions in General Conditions of Contract and Forms & Procedures	Chapter-1	9
2	Procedures related to material Handling, Storage & Other responsibilities at BHEL stores	Chapter-2	3
3	HSE Plan for Site operations by Subcontractors	Chapter-3	131
4	Hire Charges on issue of Capital tools & Plants	Chapter-4	12

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER – I PROJECT INFORMATION

UDANGUDI SUPERCRITICAL TPS UNITS- 1 & 2 [2 x 660 MW] is being set up by **TAMILNADU GENERATION AND DISTRIBUTION CORPORATION** at a site in Kallamoli village of Tiruchendur Taluk, Tuticorin District., Tamil Nadu, India. The Bidder shall acquaint himself by a visit to the site, if felt necessary, with the conditions prevailing at site before submission of the bid. The information given here in under is for general guidance and shall not be contractually binding on BHEL/Owner. All relevant site data /information as may be necessary shall have to be obtained /collected by the Bidder.

1.1.1.	Project Title	:	2x660 MW Udangudi Super Critical Thermal Power Project
1.1.2.	Plant Capacity	:	2x660 MW
1.1.3.	Type of Project	:	Green Field
1.1.4.	Owner	:	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)
1.1.5.	Plant Site Location	:	Kallamoli – 628 203, Thiruchendur (Taluk), Tuticorin (Dt), Tamilnadu
1.1.6.	Nearest Village	:	Udangudi
1.1.7.	Nearest Town & City	:	Tuticorin at 41 km
1.1.8.	State Capital	:	Chennai (App. 655 km)
1.1.9.	Nearest Railway Station	:	Thiruchendur at 8 km
1.1.10.	Nearest Airport	:	Domestic Airport Tuticorin at 41 km
1.1.11.	Nearest Seaport	:	Tuticorin Port at 45 km
1.2.	Meteorological Condition		
1.2.1.	Climate	:	Tropical, very dry and hot summer, dry and cold winter and good rain-fall in monsoon accompanied with strong wind
1.2.2.	Site Elevation	:	(+) 2.8 m above MSL
1.2.3.	<b>Ambient Temperature</b>		
a.	Annual Max. Mean Temperature	:	41 <sup>0</sup> C
b.	Annual Min. Mean Temperature	:	22.3 <sup>0</sup> C
c.	Dry Bulb Temperature (DBT) for Design Purpose	:	Max 41 <sup>0</sup> C & Min 17 <sup>0</sup> C
1.2.4.	Relative Humidity for Design Purpose	:	62-84 %
1.2.5.	<b>Annual Rainfall</b>		
	Average	:	384.4 mm to 718.2 mm
1.2.6.	Basic Design Wind Pressure	:	As per IS: 875 (Latest Edition)
1.2.7.	Wind Speed	:	11.8 kmph (Avg), 50 m/s (max)
1.2.8.	Seismic Zone	:	Zone-II as per IS-1893-2002 (Part- IV)

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER – II SCOPE OF WORKS

The scope of work covers Engaging T&P, Manpower for Receipt, unloading & material handling from trucks/trailers etc., transportation to site/site stores & storage yard, reshifting of materials, verification, stacking, tracking location of materials, loading of scrap, Handover of Mandatory Spares along with associated documentation in the computerized MM/SCMS package with BHEL and preservation of materials /components of boiler, TG, etc. and their auxiliaries, steel materials like TMT bars, structural steels, plates, reinforcement, tools and plants, office furniture, miscellaneous items etc.

The Scope of the works is indicative but not limited to the given below:

SI.No	Scope of Works
1	The number of storage yard may be one or more. All the yards shall be divided in to many locations and shall be marked visibly (Grid marking). Each location shall be identified by a display board which shall be visible from distant locations. All the materials and consumables required for this shall also be in the scope of the contractor.
2	The contractor shall examine the packages, consignments etc., on arrival and bring to the notice of Transport authorities and BHEL authorities regarding loss / damages, if any observed in the consignments proposed to be taken delivery of, before, taking delivery, particularly of consignment in –smalls the weight of the packages and any discrepancies shall be reported immediately to BHEL / Transport authorities. In case it becomes necessary to take open delivery from the authorities, contractor should make all arrangements for taking open deliveries. All expenses connected there with shall be to the account of the contractor. Any loss that occurs to BHEL on account this will be recovered from his progress bills.
3	Contractor shall examine all the shipment and notify BHEL Engineer immediately for the purpose of engineer's information.
4	In case of apparent damages / shortage to consignment / packing noticed by the contractor such cases shall be brought to the notice of BHEL and cleared only with BHEL's knowledge / approval
5	Any discrepancy / shortage / damage found in the consignment after taking delivery from the carriers after giving clear receipt would be the responsibility of the contractor and the amount liable to be lost by BHEL on such amount is recoverable from the contractor

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

6	Detailed verification of materials with reference to packing list / Loading advise slip / etc., after unpacking of boxes & crates; repacking where called for, after detailed verification; preparation of receipt inspection reports etc shall be carried out within the quoted rate within 30 days of the unloading. If the verification is not carried out within 30 days for reasons attributable to the contractor, then BHEL is having right to carryout the verification at the risk and cost of the contractor
7	Consignment coming on Sundays and Holidays are also required to be handled by the contractor on the same day. Since the offices and godowns will probably remain closed on these days, it will be the responsibility of the contractor to contact the Site Engineer / his authorised representative at BHEL at their residence and obtain instructions
8	Unloading of materials / components at the storage yard, using contractor's own T &P with valid road permits for their operation, unloading and stacking handling at storage yard for verification shall be the responsibility of the contractor under this contract
9	Unloading of all materials including ODC and heavy consignments either by the crane or by rigging method, at the location decided by BHEL engineer shall be carried out by the contractor within the quoted rate. All T&Ps including hydraulic jacks and wooden sleepers required for rigging method of unloading shall be arranged by the contractor
10	Unloading from Transport equipments, transportation, unloading at storage area / work site of heavy sophisticated equipment like heavy motors, modules, Drums, heavy bearings, fans, Transformers, Electricals Panels, components of Turbine & Generator, etc., shall be done in the presence of and as per the direction of BHEL representative including stacking and restacking if necessary
11	All the materials shall be stored at minimum of 6" height above the ground level by the use of concrete or wooden sleepers or wooden logs. No material shall be allowed to remain on ground at any time. Materials shall not be stacked in low lying areas, where it is likely to get flooded during rain.
12	Stacking of the materials shall be done as per the instructions and to the satisfaction of BHEL Engineers. The materials shall be stacked so that it should facilitate easy handling during erection and also enable traceability and "ready to lift" position in the stacked area for civil / mechanical / electrical / other contractors. In case any negligence or improper stacking is noticed, it shall be the responsibility of the contractor to re-stack at his cost. Failure to do so may force BHEL to get the job done through other agencies and recover the same from the contractor.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

13	Under the scope of this contract, it shall be the responsibility of the contractor to provide facilities to open the package in the presence of BHEL / Customer Engineers verifying the same, repacking wherever and whenever necessary properly stacking them as may be directed by BHEL so as to facilitate proper handling and verification
14	The contractor shall execute the work in the most substantial and workmen like manner. The stores shall be handled with care and diligence. Any loss to BHEL due to contractor's lapse shall have to be made good by the contractor.
15	As per instruction of BHEL Engineer, on receipt of "Stores Issue Voucher" the contractor shall locate, identify the material and shall keep it in ready to lift position immediately
16	The contractor, with his manpower shall update and maintain the documents and records of BHEL's Material Management department as per the instruction of the BHEL engineer. Entering the data in the BHEL computer as per the instruction of the BHEL engineer is also in the scope of the contractor
17	Handling and loading of outgoing materials those are to be sent to other destinations shall be carried out by the contractor
18	In case of delay in unloading / fail to unload the equipment immediately, BHEL reserve the right to unload the equipments / components through other agencies at the risk and cost of the contractor
19	The owner / employer or his authorized agents may inspect stores, storage yard, etc during the currency of the contract awarded to him. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner / employer without any extra cost to the owner / employer. No cost whatsoever such duplication of inspection of work be entertained.
20	The contractor will arrange for gate passes and any other permits required for carrying out his work from the respective agencies at his own cost. He will also comply with regulations of the customer within the project area, any of the State Government and other Government agencies
21	Materials shall be stacked neatly, preserved and stored in the stores in an orderly manner. Sometimes it may become necessary for the contractor to handle, reshift certain unrequired components in order to take out / stack the required materials. The contractor has to take this contingency also into account
22	components pertaining to generating units, auxiliaries, piping, miscellaneous plants and equipments, panels, cables and other electrical equipments, oil drums, tools, plants or any other items and equipments meant for erection, commissioning, and office equipment / furniture and miscellaneous items, contractor to use his own cranes, tractor / trailers, trucks, lorries, slings, jacks, lifting tackles and any other equipments for this job. Handling of equipments for verification of components including opening of cases / crates / boxes and

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

	repacking / stacking after verification shall also be the responsibility of the contractor.
23	Compliance with statutory obligations as well as any other requirements / provisions with respect to contractor 's manpower, equipment including insurance, medical facilities, minimum wages, safety requirements, accommodations etc., to be the responsibility of the contractor
24	The contractor shall provide the necessary resources like trained PC operators, clerical / secretarial staff / helpers for maintaining the Computerised Material Management Package provided by BHEL and carry out all operations of maintenance of documentation (soft as well as hard copies). The computer terminals for this purpose will be provided by BHEL. Minimum of Two computer operators are to be provided by contractor
25	For material preservation, all the preservative consumables like paint, grease etc shall be issued by BHEL free of cost and contractor has to arrange for application of preservatives with their own T&P, consumables like brush, emery sheet etc
26	Reshifting and restacking of the materials / components within the plant boundary shall be carried out by the contractor as per the instruction of BHEL engineer without any delay.
27	In case it is necessary to shift and re-stack the materials kept at work area / site to enable other agencies to carry out their work, same shall be done by the contractor and shall be considered as Reshifting and restacking of materials / components
28	The bidder shall visit site and get acquainted to storage yards and locations. He may required to reconcile with present material handling agency for the stock of material available at BHEL Storage yard

Detailed BOQ are given in the VOLUME- IA PART-I CHAPTER-IX

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER – III FACILITIES & CONSUMABLES IN THE SCOPE OF CONTRACTOR / BHEL

Sl.No.	Description	Scope to be taken care by		Remarks
		BHEL	BIDDER	
1.3.1.0	<b>PART-I</b>	BHEL	BIDDER	
1.3.1.1.0	<b>ESTABLISHMENT</b>			
1.3.1.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
A	Open Space for Office	Yes		Free of Charges
B	Open space for storage	Yes		Free of Charges
C	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
D	Bidder's all office equipment's, office / store / canteen consumables		Yes	
E	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
F	Firefighting equipment's like buckets, extinguishers etc.		Yes	
G	Fencing of storage area, office, canteen etc. of the bidder		Yes	
1.3.1.1.2	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
A	Open Space		Yes	
B	Living Accommodation		Yes	
1.3.1.2.0	<b>ELECTRICITY</b>			
1.3.1.2.1	Electricity for Construction Purpose			Chargeable as per prevailing TANGEDCO tariff
A	Single Point Source	Yes		Refer Cl.No. 1.3.4.0
B	Further distribution for the work to be done which include supply of materials and execution		Yes	
1.3.1.2.2	Electricity for the office, stores, canteen etc of the bidder which include:		Yes	

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

Sl.No.	Description	Scope to be taken care by		Remarks
		BHEL	BIDDER	
A	Distribution from single point including supply of materials and service		Yes	
B	Supply, installation and connection of material of energy meter including operation and maintenance		Yes	<b>Calibration certificate to be provided</b>
C	Duties and deposits including statutory clearances for the above		Yes	
D	Demobilization of the facilities after completion of works		Yes	
1.3.1.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc on the above lines		Yes	
<b>1.3.1.3.0</b>	<b>WATER SUPPLY</b>			Refer Cl.No. 1.3.5
1.3.1.3.1	For Construction Purpose		Yes	
A	Making the water available at single point		Yes	
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
1.3.1.3.2	Water supply for bidder's office, stores, canteen etc.		Yes	
A	Making the water available at single point		Yes	
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
<b>1.3.1.4.0</b>	<b>LIGHTING</b>			
A	For construction work (supply of all the necessary materials) At office storage area At the preassembly area At the construction site / area		Yes	
B	For construction work (Execution of the lighting work / arrangements) At office storage area At the preassembly area At the construction site /area		Yes	

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

Sl.No.	Description	Scope to be taken care by		Remarks
		BHEL	BIDDER	
<b>1.3.1.5.0</b>	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
A	Telephone, Fax, internet, intranet, email etc (min 2 Nos of PC & Printer) – 2 Data entry operator with computer knowledge		Yes	
<b>1.3.2.0</b>	<b>PART-II</b>			
<b>1.3.2.1.0</b>	<b>ERECTION FACILITIES</b>			
1.3.2.1.1	Engineering works for construction	Yes		
1.3.2.1.2	Providing the erection drawings for all the equipment covered under this scope	Yes		
1.3.2.1.3	Drawing for construction methods		Yes	In consultation with BHEL
1.3.2.1.4	As-built drawings – wherever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		Yes	In consultation with BHEL
1.3.2.1.5	Shipping lists etc for reference and planning the activities	Yes		
1.3.2.1.6	Preparation of site erection schedules and other input requirements		Yes	In consultation with BHEL
1.3.2.1.7	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments		Yes	In consultation with BHEL
1.3.2.1.8	Weekly erection schedule based on Sl No 1.3.2.1.6		Yes	As per requirements of BHEL targets
1.3.2.1.9	Daily erection / work plan based on Sl. No 1.3. 2.1.8		Yes	For daily monitoring meeting at site
1.3.2.1.10	Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of		Yes	In consultation with BHEL

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

	the bidder should be done once in every two months.			
1.3.2.1.11	Preparation of preassembly bay		Yes	As required
1.3.2.1.12	Laying of racks for gantry crane if provided by BHEL or brought by the contractor / bidder themselves			Not Applicable
<b>1.3.3.0</b>	<b>LAND</b>			
1.3.3.1	Minimum Open space as made available by customer will be provided at free of charges to the contractor, for construction of temporary office shed, fabrication yard, storage area at the job site and contractor's stores shed(s).			
1.3.3.2	BHEL shall not provide to the contractor any residential accommodation to any of their Labour/staff and the contractor has to make their own arrangements. Contractor has to make their own arrangements for labour colony.			
1.3.3.3	Location and area requirement for office / storage sheds / fabrication yard shall be discussed and mutually agreed to.			
<b>1.3.4.0</b>	<b>ELECTRICITY:</b>			
1.3.4.1	<p>In general, Construction power will be provided to the contractor on prevailing rates of TANGEDCO on chargeable basis at one single point by BHEL. The contractor has to Provide necessary energy meter for measuring the power consumption. The contractor shall make their own arrangement for further distribution with necessary isolator/LCB etc. However, based on request of Contractor and requirement of project, BHEL Site in charge, at their discretion, may provide construction power at multiple point (as close to work area as possible), for smooth execution of the work at site. If, BHEL provides electricity at more than one point (as close to work area as possible), it will be responsibility of the contractor to provide all the support necessary for enabling BHEL for extending such provision to contractor. However, the Construction power provided to the contractor shall be on chargeable basis at prevailing rates of TANGEDCO. The required energy meter for measuring power consumption shall be arranged by the contractor and taken care by the contractor. Any dispute, BHEL engineer's decision shall be final and binding on contractor.</p> <p>Construction power prevailing charges are as below, The present LT tariff VI rate of TANGEDCO is:</p> <ol style="list-style-type: none"> <li>a. Consumption charges at Rs.12.25 per unit</li> <li>b. Maximum demand (MD) charges as applicable per month</li> <li>c. Low Power Factor (LPF) charges</li> <li>d. Electricity Tax on total amount</li> <li>e. Any other miscellaneous charges charged by M/s TANGEDCO pertaining to construction power supply.</li> </ol> <p><b>Note -</b> The TANGEDCO tariff and tax may vary from time to time and the same is applicable for the bidder.</p>			

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

1.3.4.2	Any other charges, duty, deposit involved in getting the Electricity shall be borne by the bidder. As regards to contractor's office shed also, all such expenditure shall be borne by the contractor. Demand charges if any to be borne by the contractor.
1.3.4.3	Provision of distribution of electrical power from the given points to the required places with proper distribution boards, approved cables and cable laying including supply of all materials like cables, switch boards, pipes etc., observing the safety rules laid down by electrical authority of the State/ BHEL / their customer with appropriate statutory requirements shall be the responsibility of the tenderer / contractor.
1.3.4.4	BHEL is not responsible for any loss or damage to the contractor 's equipment as a result of variations in voltage / frequency or interruptions in power supply.
1.3.4.5	Necessary "Capacitor Banks" to improve the Power factor to a minimum of 0.9 shall be provided by the contractor at their cost. Penalty if any levied by customer on this account will be recovered from contractor's bills.
1.3.4.6	Contractor has to make their own arrangements for their electricity requirement for their labour colony at their cost. Any duty, deposit involved in getting the Electricity for contractors use i.e. Office shed, labour colony etc shall be borne by the bidder
1.3.4.7	As there are bound to be interruptions in regular power supply, power cut/load shedding in any construction sites/non availability of power source near work area, contractor should make their own arrangement for alternative source of power supply through deployment of adequate number of DG sets at their cost during the power breakdown /failure to get urgent and important work to go on without interruptions. No separate payment shall be made for this contingency.
<b>1.3.5.0</b>	<b>CONSTRUCTION WATER</b>
1.3.5.1	The contractor shall make their own arrangements of water suitable for construction purpose to have uninterrupted work. No separate payment shall be made for any contingency arrangement made by contractor, due to delay / failure for providing water supply. Contractor has to make his own arrangements for his water requirement for his labour colony at his cost.
<b>1.3.6.0</b>	<b>DRINKING WATER:</b> Bidder shall provide drinking water at the work spot at their cost.
<b>1.3.7.0</b>	<b>LIGHTING FACILITY :</b>
1.3.7.1	Adequate lighting facilities such as flood lamps, hand lamps and area lighting shall be arranged by the contractor at the working area and contractor's material storage area etc. at his cost.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## **VOLUME-IA PART – I CHAPTER – IV** **T&PS AND MMEs TO BE DEPLOYED BY CONTRACTOR &** **BHEL APPLICABLE FOR EACH PACKAGE**

1.4.1 All the tools and plants required for this scope of work, except the Tools & Plants provided by BHEL are to be arranged by the contractor within the quoted rates.

1.4.2 The following minimum major Tools & Plants (T&P) shall be arranged by the Contractor for execution of items mentioned in within the quoted rate.

SI no	T&P Description	Quantity in Nos	Deployment period (Each)		
			From	To	Total period
01	Mobile crane – 14 MT or above	02	1 <sup>st</sup> month	9 <sup>th</sup> month	9 months
02	Trailer- 40 T or above	01	As per Requirement		

**Note:**

The age of the contractor deployed cranes upto 150 T should be within 15 years as on date of deployment. Contractor has to provide documentary proof for the age of the crane at the time of deployment to the BHEL Engineer.

1.4.3. In the eventuality of contractor not deploying cranes / abnormal down time of cranes in his scope during the period specified above, and BHEL arranges for the same (either BHEL's own cranes / hired cranes), prevailing BHEL Corporate Crane hire charges (may vary from time to time) shall be recovered from the contractor's running bills.

1.4.4. Higher capacity crane will be provided on shareable basis for unloading of consignments which requires above 14 T Crane capacity if sparable. If not separable in all other places jacking/rigging is to be adopted. Decision of BHEL engineer will be final on the above.

1.4.5 Non availability of the Cranes (mentioned in clause 1.4.2) as per the clause 1.4.6 below will lead to recovery in the running bills. The decision of BHEL in this regard shall be final and binding on the Contractor.

1.4.6 Contractor shall ensure that all the Cranes mentioned in the deployment plan shall be in good working condition throughout the period mentioned in the deployment plan. In case of the Cranes are not in working conditions for one full day over and above the maintenance period mentioned in clause 1.4.7, an amount of Rs 3000/- per day per T & P shall be deducted as penalty. The proportional payment shall be calculated as below:

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- 1.4.7 Regular maintenance period of one day per month shall be permitted and Preventive maintenance period of six days per year with each spell not exceeding three days shall be permitted for the T&Ps.
- 1.4.8 If work gets delayed due to non-availability of any T & P, BHEL reserves the right to get the work done at the risk and cost of contractor. The value of the risk and cost or the deduction as calculated above, whichever is higher will be deducted from the Contractor's monthly bills.
- 1.4.9 During the extended period of contract, if any, contractor shall arrange all T & Ps excluding the Cranes. Arranging cranes shall be intimated by BHEL Engineer when providing extension.
- 1.4.9.1 Deployment of cranes mentioned in the deployment plan, if required for more period of deployment, over and above the indicated period, shall be deployed by the contractor against specific request from BHEL.
- 1.4.10 BHEL shall have the right to reduce the period of deployment of any crane / trailer, provided the reduction does not exceed 25% of the tendered deployment period. In such a case, the contractor shall be given a notice period of 30 days for such reduction and the Contractor shall not be required to remobilize the same crane / trailer again.
- 1.4.11 Crane log sheet for each of the crane on daily basis are to be certified by the BHEL engineer. Contractor shall submit the monthly Running Account Bills along with duly certified log sheets.
- 1.4.12 Any or part or all of the T & Ps of the contractor identified for the tendered package shall not be engaged for any works other than that of the works intended in this tender.
- 1.4.13 Contractor shall make necessary arrangements for round the clock operations, in case of heavy inflow of materials within the quoted rates. Decision of BHEL engineer is final in requirement of round the clock operation. Adequate lighting to be provided by the contractor for night operations within the quoted rates.
- 1.4.14 In case BHEL decides to engage the cranes for any of its job then the contractor is bound to operate the cranes with his own operator as per the direction of BHEL engineer.
- 1.4.15 In the eventuality of contractor not deploying cranes / abnormal down time of cranes in his scope during the period specified above, and BHEL arranges for the same (either BHEL's own cranes / hired cranes), prevailing BHEL Corporate Crane hire charges (may vary from time to time) shall be recovered from the contractor's running bills.
- 1.4.16 Two Nos of computers of latest configuration (preferable i5 processor, 8 GB Ram, 500 GB Hard disk, with internet provision on all the computers), along with data entry operator to be arranged by contractor for updation of details in MM / SCMS package of BHEL.
- 1.4.17 Crane operators deployed by the contractor shall be tested by BHEL before he is allowed to operate the cranes.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- 1.4.18 For all BHEL's crane, BHEL shall provide crane operator, free of charges. Fuel to be provided by the contractor within the quoted rate. All consumables for the BHEL crane maintenance shall be provided by the contractor within the quoted rates
- 1.4.19 Any other T & P (except Cranes, Trailers, Fork Lifts etc) which may be required for successful and timely execution of the work covered within the scope of this tender shall be arranged and provided at site by the contractor at his cost. In case if the contractor fails to provide such equipments, BHEL will arrange for the same and the cost will be recovered from the contractor's bill with BHEL overheads, as applicable from time to time which may vary even during contract period.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

**VOLUME-IA PART – I CHAPTER – V**

Void

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

## VOLUME-IA PART – I CHAPTER-VI TIME SCHEDULE

### 1.6.1. TIME SCHEDULE

- 1.6.1.1. The entire work of material handling and material management works, as detailed in the Tender Specification shall be completed within **9 (Nine) months** from the date of commencement of work at site.
- 1.6.1.2. The materials / equipment / components are likely to be received in stages for the period.
- 1.6.1.3. The work shall be commenced on the mutually agreed date between the bidder and BHEL engineer and shall be deemed as completed in all respect only when the unit is in operation. The decision of BHEL in this regard shall be final and binding on the contractor. The scope of work under this contract is deemed to be completed only when so certified by the site Engineer.

### 1.6.2. COMMENCEMENT OF CONTRACT PERIOD

The date of commencement of contract period shall be the mutually agreed date between the bidder and BHEL engineer to start the work. In case of discrepancy, the decision of BHEL engineer is final.

### 1.6.3. MOBILISATION.

Contractor shall mobilize necessary resources as per letter of Intent or as per directive of Construction manager BHEL engineer.

### 1.6.4 CONTRACT PERIOD

The contract period for completion of entire work under scope shall be **9 (Nine) months** from the “COMMENCEMENT OF CONTRACT PERIOD” as specified earlier for completion of the entire work.

### 1.6.5 GUARANTEE PERIOD

The guarantee period of twelve months for workmanship shall commence from the date of completion of contract period including the Time Extensions, under the scope of this tender.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER-VII TERMS OF PAYMENT

1.7. The 'Rate per MT of materials' shall be paid on completion of the activities mentioned in the following table on pro-rata basis.

Sl.No	Description of Activity	SCOPE(MT)
1.7.1.1	Receipt of 1 No of Generator Transformers	250
1.7.1.2	Receipt of Materials from Various Vendors and BHEL Units to Udangudi Site	2072
1.7.1.3	Shifting of Mandatory spares and other tools to Permanent Stores Building, Verification with customer and Handing over to Customer	1001
1.7.1.4	Shifting of Materials at Stores/ Site inside the Plant Boundary	658
1.7.1.5	Loading of Material to Other Sites / Units outside the plant	3050
1.7.1.6	Identifying and issuing of material at BHEL Stores	20213
1.7.2	<b>PENALTY LEVIABLE IN MONTHLY RA BILL IN CASE OF FOLLOWING NON COMPLIANCES-</b>	
	<b>NON COMPLIANCES</b>	<b>PENALTY</b>
1.7.2.1	Non Deployment of T & P	Rs 3000/ Day/ T&P
1.7.2.2	Non Deployment of Manpower as per Form-14 for more than 3 days in a month	Rs 2000/Day/ Manpower
1.7.2.3	Delay in identification and Shifting of material / Loading of material as per BHEL Requirement if delay is greater than 2 days and delay is attributable to contractor	Rs 10000/- per instance
1.7.2.4	Delay in Verification of Materials as per BHEL Requirement	Rs 10000/- per instance
1.7.2.5	Completion of Documentation planned for the month, related to MM system	Rs 10000/- per instance
1.7.2.6	Penalty per truck per day (over and above two days) for not unloading the materials within two days of receipt if the delay is attributable to contractor	Rs.500.00

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

1.7.2.7	Loss of materials, damages due to carelessness, negligence of the contractor	Rs 10000/- per instance
1.7.2.8	Non Verification of Material issued to agencies	Rs 10000/- per instance
1.7.2.9	Non rectification of improper storage / Preservation after notice by BHEL	Rs 10000/- per instance

1.7.3 The contractor shall submit his bills once in a month duly furnishing the following minimum information along with other details as applicable.

- a. The gross weight as per RR/LWB / PWB
- b. RR/PWB/LWB Number
- c. Wagon/Vehicle/truck number and number of bundles/boxes/piece in each vehicle / truck / Wagon
- d. Shortage / damage reports in BHEL's standard material / management form.
- e. Rate / per tonne
- f. Amount claimed.
- g. Recoveries / Penalties
- h. RR Incase materials are received in railway wagons
- i. Crane and trailer log sheets
- j. Material Shifting log sheets
- k. Upto date updation of Receipt / Issue details on BHEL MM Package / SCMS System as decided by BHEL.

1.7.4 5% Security deposit applicable as per Vol-IA, Part-II , Chapter-I

1.7.5 Retention amount applicable for RAB as per Vol-IA, Part-II , Chapter-I

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER-VIII

### TAXES AND DUTIES

#### **Goods and service Tax (GST) & Cess**

- 1.8.1.1 The successful bidder shall furnish proof of GST registration with GSTN Portal in the State in which the Project is being executed, covering the services under this contract. Registration should also bear endorsement for the premises from where the billing shall be done by the successful bidder on BHEL for this project/ work.
- 1.8.1.2 Contractor's price/rates shall be exclusive of GST & Cess (if applicable) (herein after termed as GST). Contractor shall submit to BHEL the GST compliant tax invoice/debit note/revised tax invoice on the basis of which BHEL will claim the input tax credit in its return. Since this is a works contract, the applicable rate shall be @ 18% GST, as applicable presently.
- 1.8.1.3 Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules wherein the 'Bill To' details will as below:
- BHEL GSTN - 33AAACB4146P2ZL  
NAME - BHARAT HEAVY ELECTRICALS LIMITED  
ADDRESS - BHEL-PSSR SITE OFFICE, 2X660 MW Udangudi  
Supercritical Thermal Power Station, Kallamoli Village, Thiruchendur Taluk,  
Thoothukudi District, Tamil Nadu - 628203
- 1.8.1.4 GST charged in the tax invoice/debit note/revised tax invoice by the contractor shall be released separately to the contractor only after contractor files the outward supply details in GSTR-1 on GSTN portal and input tax credit of such invoice is matched with corresponding details of outward supply of the contractor and has paid the GST at the time of filing the monthly return.
- 1.8.1.5 In case BHEL has to incur any liability (like interest / penalty etc.) due to denial/reversal / delay of input tax credit in respect of the invoice submitted by the contractor, for the reasons attributable to the contractor, the same shall be recovered from the contractor.
- 1.8.1.6 Further, in case BHEL is deprived of the Input tax credit due to any reason attributable to contractor, the same shall not be paid or Recovered if already paid to the contractor.
- 1.8.1.7 Tax invoice/debit Note/revised tax invoice shall contain all such particulars as prescribed in GST law and comply to the timelines for issue of the same. Invoices shall be submitted on time to the concerned BHEL Engineer In Charge.
- 1.8.1.8 TDS under GST (if/ as & when applicable) shall be deducted at prevailing rates on gross invoice value from the running bills.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

1.8.1.9 E-way bills / Transit passes / Road Permits, if required for materials / T&P etc., bought into the project site is to be arranged by the Contractor only.

1.8.1.10 BHEL shall not reimburse any amounts towards any interest / penalty etc., incurred by contractor. Any additional claim at a later date due to issues such as wrong rates / wrong classification by contractor shall not be paid by BHEL.

### 1.8.2 All taxes and duty other than GST & Cess

The contractor shall pay all (except the specific exclusion viz GST & Cess) taxes, fees, license charges, deposits, duties, tools, royalty, commissions, Stamp Duties, or other charges / levies, which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract and the same shall not be reimbursed by BHEL. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

### 1.8.3 Statutory Variations

Statutory variations are applicable under the GST Acts, against production of proof. The changes implemented by the Central / State Government during the tenure of the contract viz. increase / decrease in the rate of taxes, applicability, etc. and its impact on upward revision / downward revision are to be suitably paid/ adjusted from the date of respective variation. The bidder shall give the benefit of downward revision in favor of BHEL. No other variations shall be allowed during the tenure of the contract.

### 1.8.4 New Taxes/Levies

In case Government imposes any new levy / tax after submission of bid during the tenure of the contract, BHEL shall reimburse the same at actual on submission of documentary proof of payment subject to the satisfaction of BHEL that such new levy / tax is applicable to this contract.

### 1.8.5 Direct Tax

BHEL shall not be liable towards Income Tax of whatever nature including variations thereof arising out of this contract as well as tax liability of the bidder and their personnel. Deduction of tax at source at the prevailing rates shall be effected by BHEL before release of payment as a statutory obligation, unless exemption certificate is produced by the bidder. TDS certificate will be issued by BHEL as per the provisions of Income Tax Act

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## VOLUME-IA PART – I CHAPTER IX

### BILL OF QUANTITY (BOQ)

#### 1.9.1 BOQ of Package: -

Sl. No	Payment Category	Description of work	Approx. Weight in MT	Nature of Work
1	1.7.1.1	Receipt of 1 nos Generator Transformers	250	Unloading through rigging method
2	1.7.1.2	Receipt of mandatory spares in total/partial from BHEL units HPEP Hyderabad, HEEP Haridwar, PEM Noida, BAP Ranipet, PESD Hyderabad, TRS-Bhopal, Rudrapur, Jhansi, EPD/SBD Bangalore, EDN Bangalore	736	Safe Unloading of Material, Systematic opening / repacking of materials as required, Verification of Materials, Obtaining MRC from Customer
3	1.7.1.2	Receipt of Steel	1336	Safe Unloading of Material, Systematic opening / repacking of materials as required, Verification of Materials, Obtaining MRC from Customer
4	1.7.1.3	Shifting of mandatory spares to Permanent stores building, Verification and handing over to customer	901	Safe Unloading of Material, Systematic opening / repacking of materials as required, Verification of Materials, Handing over to customer

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

5	1.7.1.3	Collect all the unit supplied tools from erection agencies and handing over to customer in permanent stores building	100	Safe Unloading of Material, Systematic opening / repacking of materials as required, Verification of Materials, Obtaining MRC from Customer
6	1.7.1.4	Shifting of Workshop items, lab items to site	58	Material re-shifting Material Shifting inside Site premises
7	1.7.1.4	Reshifting material at site to enable other agencies to carry out their work	600	Material re-shifting Material Shifting inside Site premises
8	1.7.1.5	Diversion of surplus materials (Steel, excess material supplied by units, excess material diverted from other sites) to other project sites	3000	Loading For transportation away from site
9	1.7.1.5	Packing and loading damaged material to vendor works and collecting the repaired material	50	Loading For transportation away from site
10	1.7.1.6	Issue of balance material in store to erection agencies	20213	Identification of material

**NOTE:**

- i) The product list indicated above are indicative only. The weight mentioned above is approximate and liable to vary as per design consideration of the manufacturing unit.
- ii) The payment will be made at the quoted / accepted rates for the tonnage actually handled.
- iii) Besides the products indicated above there is likelihood in addition of any products integral to Boiler, TG and its auxiliaries. Tenderers quoted rate shall be applicable for such products also.
- iv) For the purpose of payment, the gross weight indicated in RR / LWB / PWB will be taken into account for calculating the tonnage handled. However, in case of

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

full truck / Lorry load, Gross weight indicated in shipping / dispatch documents will be taken into account for this purpose. Where gross weight is not available in these documents, gross weight as assessed by BHEL Engineers will be taken into account and which is final for the purpose of payment. For handling of insulation materials, the payment will be made only for the actual Tonnage handled with respect to the shipping / Dispatch documents as per the Quoted / Accepted rate.

- v) Preservation and storage of components will have to be done as per the instruction of BHEL engineers.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

## VOLUME-IA PART –I CHAPTER –X GENERAL

### **The scope of the work will comprise of but not limited to the following:**

(All the works mentioned hereunder shall be carried out within the accepted rate unless otherwise specified.)

- 1.10.1** The scope of the work will comprise of but not limited to the following:  
All the works mentioned hereunder shall be carried out within the accepted rate unless otherwise specified.
- 1.10.1.1 Deleted
- 1.10.1.2 Bidders are requested to furnish the proof of documents for the following at PSSR-Site.
- a. Provident Fund (PF) Registration Number
  - b. Labour License Number
  - c. Workmen Insurance Policy Number
- 1.10.2 **In addition to the clause 2.8 of General Conditions of Contract (Volume-1C of Book-II) the contractor shall comply with the following:**
- 1.10.2.1 BOCW ACT & BOCW WELFARE CESS ACT :**
- 1.10.2.1.1 The Contractor should Register their Establishment under BOCW Act 1996 read with rules 1998 by submitting Form I (Application for Registration of Establishment) and Form IV (Notice Of Commencement / Completion of Building Other Construction Work) to the respective Labour Authorities i.e.,
- a) Assistant Labour Commissioner (Central) in respect of the project premises which is under the purview of Central Govt.–NTPC, NTPL etc.
  - b) Appropriate State authorities in respect of the project premises which is under the purview of State Govt.
- 1.10.2.1.2 The Contractor should comply with the provisions of BOCW Welfare Cess Act 1996 in respect of the work awarded to them by BHEL.
- 1.10.2.1.3 The contractor should ensure compliance regarding Registration of Building Workers as Beneficiaries, Hours of work, welfare measures and other conditions of service with particular reference to Safety and Health measures like Safety Officers, safety committee, issue of Personal protective equipments, canteen, rest room, drinking water, Toilets, ambulance, first aid centre etc.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- 1.10.2.1.4 The contractor irrespective of their nature of work and manpower (Civil, Mechanical, Electrical works etc) should register their establishment under BOCW Act 1996 and comply with BOCW Welfare Cess Act 1996.
- 1.10.2.1.5 Contractor shall make remittance of the BOCW cess as per the Act **in consultation with BHEL** as per the rates in force (presently 1%). BHEL shall reimburse the same upon production of documentary evidence. However, BHEL shall not reimburse the fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and contribution of Beneficiaries remitted
- 1.10.2.1.6 Non-compliance to Provisions of the BOCW Act & BOCW Welfare Cess Act is not acceptable. In case of any non-compliance, BHEL reserves the right to withhold any sum as it deems fit. Only upon total compliance to the BOCW Act and also discharge of total payment of Cess under the BOCW Cess Act by the Contractor, BHEL shall consider refund of the Amounts

### **1.10.2.2 PROVIDENT FUND & MINIMUM WAGES**

- 1.10.2.2.1 The contractor is required to extend the benefit of Provident Fund to the labour employed by them in connection with this contract as per the Employees Provident Fund and Miscellaneous Provisions Act 1952. For due implementation of the same, contractor is hereby required to get themselves registered with the Provident Fund authorities for the purpose of reconciliation of PF dues and the code number allotted to them by the Provident Fund authorities shall be furnished to our office within one month from the date of issue of this letter of intent. In case contractor are exempted from such remittance, an attested copy of authority for such exemption is to be furnished. Please note that in the event of their failure to comply with the provisions of said Act, if recoveries therefore are enforced from payments due to BHEL by the customer or paid to statutory authorities by BHEL, such amount will be recovered from payments due to the contractor.
- 1.10.2.2.2 The contractor shall ensure the payments of minimum labour wages to the workmen under them as per the rules applicable from time to time in the state.
- 1.10.2.2.3 The final bill amount would be released only on production of clearance certificate from PF / ESI and labour authorities as applicable.

### **1.10.2.3 OTHER STATUTORY REQUIREMENTS**

- 1.10.2.3.1 The Contractor shall submit a copy of Labour License obtained from the Licensing Officer (Form VI) u/r25 read with u/s 12 of Contract Labour (R&A) Act 1970 & rules and Valid WC Insurance copy or ESI Code (if applicable) and PF code no along with the first running bill.
- 1.10.2.3.2 The contractor shall submit monthly running bills along with the copies of monthly wages (of the preceding month) u/r78(1)(a)(1) of Contract Labour Rules, copies of monthly return of PF contribution with remittance Challans

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

under Employees Provident Fund Act 1952 and copy of renewed WC Insurance policy or copies of monthly return of ESI contribution with Challans under ESI Act 1948 (if applicable) in respect of the workmen engaged by them.

- 1.10.2.3.3 The Contractor should ensure compliance of Sec 21 of Contract Labour (R&A) Act 1970 regarding responsibility for payment of Wages. In case of “Non-compliance of Sec 21 or non-payment of wages” to the workmen before the expiry of wage period by the contractor, BHEL will reserve its right to pay the workmen under the orders of Appropriate authority at the risk and cost of the Contractor.
- 1.10.2.3.4 The Contractor shall submit copies of Final Settlement statement of disbursement of retrenchment benefits on retrenchment of each workman under I D Act 1948, copies of Form 6-A (Annual Return of PF Contribution) along with Copies of PF Contribution Card of each member under PF Act and copies of monthly return on ESI Contribution – Form 6 under ESI Act 1948 (If applicable) to BHEL along with the Final Bill.
- 1.10.2.3.5 In case of any dispute pending before the appropriate authority under I D act 1948, WC Act 1923 or ESI Act 1948 and PF Act 1952, BHEL reserve the right to hold such amounts from the final bills of the Contractor which will be released on submission of proof of settlement of issues from the appropriate authority under the act.
- 1.10.2.3.6 In case of any dispute prolonged/pending before the authority for the reasons not attributable to the contractor, BHEL reserves the right to release the final bill of the contractor on submission of Indemnity bond by the contractor indemnifying BHEL against any claims that may arise at a later date without prejudice to the rights of BHEL.

### **1.10.2.4 DEPLOYMENT OF SKILLED / SEMI-SKILLED TRADESMEN**

The following clause is applicable in case the contract value / contract price is Rs. Five crores and above.

The contractor shall, at all stages of work deploy skilled / semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute / National Institute of Construction Management and Research (NICMAR), National Academy of Construction, CIDC or any similar reputed and recognized Institute managed / certified by State / Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled / semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

### **1.10.3. OTHER GENERAL REQUIREMENTS**

- 1.10.3.1. The scope of specification covers the installation, testing and commissioning of the erected equipment / instrument along with accessories as detailed in Bill of Quantity.
- 1.10.3.2. Identification of equipment at storage yard, technical assistance for checking and making the shortage/damage reports, taking delivery at storage yard and pre-assembly of equipment wherever required, erecting the equipment, aligning, fastening, supporting, cleaning, checking and carrying out statutory tests as required, trial operation, pre-commissioning, commissioning and post-commissioning activities up to the time of completion of commissioning activities and commercial operation of the unit and handing over to customer or till completion of contract period (including extended period) whichever is earlier, along with the supply of all consumables, tools and tackles and testing instruments.
- 1.10.3.3. Scope of work covered under this specification requires quality workmanship, engineering and construction management. The contractor shall ensure timely completion of work. The contractor shall have adequate tools, measuring instruments, calibrating equipment etc., in their possession. He shall also have adequate trained, qualified and experienced engineers, supervisory staff and skilled personnel. The manpower deployment identified by contractor shall match with above scope of works.
- 1.10.3.4. It is not the intent to specify herein all details of material. Any item related this work not covered here but necessary to complete the system will be deemed to have been included in the scope of the work.
- 1.10.3.5. The contractor shall have valid ELECTRICAL LICENCE as required to carry out the scope of work indicated in the BOQ.
- 1.10.3.6. All the work shall be carried out as per instructions of BHEL engineer. BHEL engineer's decision regarding the correctness of the work and method of working shall be final and binding on the contractor.
- 1.10.3.7. Contractor shall erect all items/materials etc. as per sequence prescribed by BHEL at site. BHEL engineer depending upon the availability of materials/work fronts etc will decide the sequence of erection/commissioning methodology. No claims for extra payment from the contractor will be entertained on the grounds of deviation

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

from the methods of erection/commissioning adopted in erection/commissioning of similar job or for any reasons whatsoever.

- 1.10.3.8. Site testing wherever required shall be carried out for all items / materials installed by the contractor to ensure proper installation and functioning in accordance with drawings, specifications and manufacturer's recommendations and Field quality plans of BHEL.
- 1.10.3.9. The contractor shall co-ordinate and provide assistance for satisfactory testing, pre-commissioning, commissioning and trial run of the connected equipment under overall guidance of BHEL and shall locate any cause of malfunction and rectify the same for proper operation. Testing shall also include any additional tests, which the Engineer feels necessary because of site conditions and also to meet system specification.
- 1.10.3.10. During the course of erection, testing and commissioning certain rework / modification/ rectification / repairs / fabrication etc. may be necessary on account of feedback from other power stations or units already commissioned and/ or units under erection and commissioning and also on account of design changes and manufacturing incompatibilities and site operation / maintenance requirements. Contractor shall carryout such rework / modification / rectification / fabrication / repairs etc, promptly and expeditiously. Payments for such works shall be governed by Cl. 2.15.1 of GCC.
- 1.10.3.11. The work shall be executed under the usual conditions without affecting power plant construction and in conjunction with other operations and contracting agencies at site. The contractor and their personnel shall co-operate with the personnel of other agencies, co-ordinate their work with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.
- 1.10.3.12. If any item or equipment not covered but requires being erected/commissioned, same shall be carried out by the contractor. Equivalent or proportional unit rate shall be considered wherever possible from the BOQ.
- 1.10.4. After completing all the works, contractor shall hand over all remaining extra materials with proper identification tags in a packed condition to BHEL stores. In case of any use over actual design requirements, BHEL reserves the right to recover the cost of material used in excess or misused. Decision of BHEL engineer in this regard will be final and binding on the contractor.
  - 1.10.4.1. Contractor shall, transport all materials to site and unload at site / working area, or pre-assembly yard for inspection and checking. All material handling equipment required shall be arranged by the contractor.
  - 1.10.4.2. Contractor shall retain all T&P / Testing instrument / Material handling equipment etc., at site as per advice of BHEL engineer and same shall be taken out from site only after getting the clearances from engineer in charge.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- 1.10.4.3. Contractor shall remove all scrap materials periodically generated from their working area in and around power station and collect the same at one place earmarked for the same. Load of scraps is to be shifted to a place earmarked by BHEL. Failure to collect the scrap is likely to lead to accidents and as such BHEL reserves the right to collect and remove the scrap at contractor's risk and cost if there is any failure on the part of contractor in this respect. All the package materials, including special transporting frames, etc., shall be returned to the BHEL stores / customer's stores by the contractor.
- 1.10.4.4. The scrap generated after executing the work shall be returned to BHEL earmarked area every week and the same shall be vetted by the Engineer-in-charge, to be produced along with the running bill.
- 1.10.4.5. The contractor at their cost shall arrange necessary security measures for adequate protection of their machinery, equipment, tools, materials etc. BHEL shall not be responsible for any loss or damage to the contractor's construction equipment and materials. The contractor may consult the Engineer-in-Charge on the arrangements made for general site security for protection of their machinery equipment tools etc.,
- 1.10.4.6. The contractor shall ensure that their premises are always kept clean and tidy to the extent possible. Any untidiness noted on the part of the contractor shall be brought to the attention of the contractor's site representative who shall take immediate action to clean the surroundings to the satisfaction of the Engineer-in-Charge.
- 1.10.5. The Contractor may have to execute work in such a place and condition where other agencies also will be under such circumstances. However, completion time for erection agreed will be subject to the condition that contractor's work is not hampered by the agencies.
  - 1.10.5.1. All the surplus, damaged, unused materials, package materials, containers, special transporting frames, gunny bags etc. shall be returned to the BHEL stores / customer's stores by the contractor.
- 1.10.6. If required by BHEL, the contractor shall change the sequence of their operation so that work on priority sectors can be completed within the projects schedule. The contractor shall afford maximum assistance to BHEL in this connection without causing delay to agreed completion date.
  - 1.10.6.1. Any wrong erection shall be removed and re-erected promptly to comply with the design requirements to the satisfaction of Site Engineer.
  - 1.10.6.2. Contractor has to work in close co-ordination with other erection agencies at site. BHEL engineer will co-ordinate for area clearance. In a project of such magnitude, it is possible that the area clearance may be less/more at a particular given time. Activities and erection program have to be planned in such a way that the

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

milestones are achieved as per schedule/ plans. Contractor shall arrange & augment the resources accordingly.

- 1.10.6.3. The contractor must obtain the signature and permission of the security personnel of the customer for bringing any of their materials inside the site premises. Without the Entry Gate Pass these materials will not be allowed to be taken outside.
- 1.10.6.4. The contractor is strictly prohibited from using BHEL's regular components like angles, channels, beams, plates, pipe/tubes, and handrails etc for any temporary supporting or scaffolding works. Contractor shall arrange themselves all such materials. In case of such misuse of BHEL materials, a sum as determined by BHEL engineer will be recovered from the contractor's bill. The decision of BHEL engineer is final and binding on the contractor.
- 1.10.6.5. The contractor will be responsible for the safe custody and proper accounting of all materials in connection with the work. If the contractor has drawn materials in excess of design requirements, recoveries will be effected for such excess draws at the rate prescribed by manufacturing units.
- 1.10.6.6. No member of the already erected structure/ platform, pipes, grills, platform, other component and auxiliaries should be cut without specific approval of BHEL engineer.
- 1.10.6.7. Contractors shall ensure that all their Staff/Employees are exposed to periodical training program conducted by qualified agencies/ personnel on ISO 9001 /2015 Standards.
- 1.10.6.8. Contractor has to clear the front, expeditiously and promptly for other agencies, such as piping, Boiler, ESP, TG, Instrumentation, insulation etc., to commence their work from/on the equipment's coming under this scope (or) as instructed by BHEL Engineer. Some time it may be required to re-schedule the activities to enable other agencies to commence/continue the work so as to keep the overall project schedule.
- 1.10.6.9. The terminal points decided by BHEL are final and binding on the contractor for deciding the scope of work and effecting the payment for the work done up to the terminals.
- 1.10.6.10. On Completion of work, all the temporary buildings, structures, pipe lines, cable etc. shall be dismantled and leveled and debris shall be removed as per instruction of BHEL by the contractor at their cost. In the event of their failure to do so, the

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

expenditure towards clearance of the same will be recovered from the contractor. The decision of BHEL Engineer in this regard is final.

- 1.10.6.11. Prior to erection of any components inspection to be done for any foreign materials and damages and they are to be attended as per directions of BHEL engineer.
- 1.10.6.12. All the equipment /material to be taken inside the plant building shall be cleaned thoroughly before taking them inside and erect.
- 1.10.6.13. It is the responsibility of the contractor to do the alignment, checking, etc., if necessary, repeatedly to satisfy BHEL Engineer / Customer Engineers with all the necessary tools and tackles, manpower etc. without any extra cost. The alignment will be completed only when jointly certified so, by the BHEL Engineer & Customer. Also the contractor should ensure that the alignment is not disturbed afterwards.
- 1.10.6.14. No temporary supports shall be welded on the pressure parts of piping. Welding of temporary supports, cleats, etc. on the boiler columns shall be avoided. In case of absolute necessity contractor shall take prior approval from BHEL Engineer. Further, any cutting or alternation of member of the structure of platform or other equipment shall not be done without specific prior approval of BHEL Engineer.
- 1.10.6.15. In electrical MCC's the fixed and moving contacts in contactors & Copper strips shall be removed and kept in safe custody. The same shall be re-erected during commissioning of the system.
- 1.10.6.16. Whenever cable glands are supplied along with MCC'/JB's/ PB's/etc. they shall be removed and kept in safe custody. The same shall be re-erected during cable termination.
- 1.10.6.17. Permanent nomenclature/identification on Junction boxes/AC Fuse DB/DC Fuse DB/Control panel, LDB, Lighting Panel & individual feeders, Transformers are to be done by the contractor as per the requirement decided BHEL Engineer at site.
- 1.10.6.18. All the necessary certificates and licenses required to carry out this scope of work are to be arranged by the contractor then and there (if required) within the quoted rate. Also refer the clause - ELECTRICAL INSPECTORATE'S APPROVAL below.

### **1.10.7. ELECTRICAL INSPECTORATE'S APPROVAL**

- 1.10.7.1. Contractor is responsible for getting Electrical Inspector/statutory authority's approval for all electrical installation covered in their scope.
- 1.10.7.2. For getting electrical inspector approval, contractor shall arrange the following:
  - a. Work Completion certificate for all the equipment covered in the contract
  - b. Details of Equipment (specification).

Any other documents as required by statutory authority. Any expenditure related to documentation shall be borne by contractor.

- 1.10.7.3. Contractor shall carry out the modifications/rectifications, if any, as suggested by the authority at their cost. However, it is not applicable for equipment erected by

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

Mechanical contractor.

- 1.10.7.4. Contractor shall also have valid electrical installation license on their company as well as for individuals acceptable to respective state electrical inspectorate requirement.
- 1.10.7.5. The contractor shall arrange necessary statutory inspections and obtain certificate for installation work at their cost. Any Expenditure related to documentation shall be borne by the contractor. Contractor shall pay all fees relates to electrical inspectorate approval. However, BHEL shall reimburse all statutory fees on production of receipts (FEES FOR VISITS, INSPECTION FEES, REGISTRATION FEES and any other statutory fees).
- 1.10.7.6. Any modification work required by inspector shall be attended by the contractor. Modifications which had raised due to execution deficiencies are at the cost of contractor whereas modifications which are due to design change shall be treated as extra work.**
- 1.10.8. SITE INSPECTION**
- 1.10.8.1. Various Inspection / quality control / quality assurance procedures/methods at various stages of erection and commissioning will be as per BHEL / Customer quality control procedure / codes and other statutory provisions and as per BHEL Engineer's instructions.
- 1.10.8.2. The owner / employer or their authorized agents may inspect various stages of work during the currency of the contract awarded to them. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner / employer without any extra cost to the owner / employer. No cost whatsoever such duplication of inspection of work be entertained.
- 1.10.8.3. BHEL / Customer will have full power and authority to inspect the works at any time, either on the site or at the contractor's premises. The contractor shall arrange every facility and assistance to carry out such inspection. On no account will the contractor be allowed to proceed with work of any type unless such work has been inspected and entries are made in the site inspection register by customer / BHEL.
- 1.10.8.4. Wherever the performance of work by the contractor is not satisfactory in respect of workmanship, deployment of sufficient labour or equipment, delay in execution of work or any other matter, BHEL shall have the right to engage labour at normal ruling rates and get the work executed through other agency and debit the cost to the contractor and the contractor shall have no right to claim compensation thereof. In such a case, BHEL shall have the right to utilize the materials and tools brought by the contractors for the same work.
- 1.10.9. MANPOWER REQUIREMENT**
- 1.10.9.1. Manpower requirement for Erection and Commissioning shall as follows:
- a. There shall be a Resident manager as Site In Charge at site, under whom

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- there shall be sufficient area engineers who shall take care of the erection activities.
- b. Resident Engineer should have a minimum qualification of Electrical Engineering Degree with minimum 5 years' experience or Diploma in Electrical /Electronic engineering with minimum 10 years of experience in Thermal Power Station.
  - c. Area Engineer should have minimum qualification of Diploma in Engineering or any graduate with minimum 3 years of experience in Thermal Power Station.
  - d. Supervisor should have a minimum qualification of Diploma in Electrical/Electronics/C&I engineering or any graduate with minimum 3 years of experience in Thermal Power Station.
  - e. Lab Technicians should have 2 years' experience in Thermal Power Stations.
  - f. Contractor should have one Store Keeper, one Transport Supervisor for the safe transportation of materials.
  - g. Planning / safety Engineers should be available and they should have experience in construction field especially in power plant.
  - h. Licensed supervisor-01 No. with valid HT/LT electrical license
  - i. Dedicated commissioning engineer should be deployed for commissioning of the equipment.
- 1.10.9.2. Each area engineer shall be provided with minimum four (04) supervisors and adequate number of Technicians / electricians and other erection staff and T&P etc. The testing Engineers / supervisors / electricians shall be identified separately and the minimum requirement shall be as indicated in previous Clause. Besides, there shall be separate engineers for Planning, Safety and Quality.
- 1.10.9.3. The above said manpower requirement is only tentative and any additional requirement shall be fulfilled within the quoted rate.
- 1.10.9.4. The Site in charge shall be provided with PCs and good communication facilities like telephone, email etc. at the cost and expense of the contractor. Lack of communication facilities will not be an excuse for extension of completion date.
- 1.10.9.5. All instructions from BHEL / Customer will be directed to the contractor through the Site in-charge and he shall be responsible for all the contractor's activities at site. The contractor shall name their authorized representative prior to or immediately on commencement of operations at site.
- 1.10.9.6. The Site In charge shall be present at site during all normal working hours and their contact address after normal working hours shall be made available to BHEL

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

so that if any emergency arises, the presence of the contractor's site Representative at site can be called for.

- 1.10.9.7. The contractor shall not change the site Representative without the consent of BHEL. Should BHEL require the replacement of the contractor's site Representative for justifiable reasons (including inadequate progress of work) the contractor shall ensure that replacement is made as soon as possible and work is not allowed suffering delay on this account.
- 1.10.9.8. The contractor shall provide to the satisfaction of BHEL sufficient and qualified staff for the execution of works. If and whenever any of the contractor's staff is found guilty of any misconduct or be incompetent or insufficiently qualified in the performance of their duties the contractor shall remove them from site as directed by Site Engineer.
- 1.10.9.9. The contractor shall ensure that all their supervisor's staff and workmen conduct themselves in a proper manner. They shall all be persons who are familiar with and skilled at the jobs allocated to them. Any misconduct / inefficiency noted on the part of the contractor's personnel shall be brought to the attention of the contractor's site representative who shall immediately take such action as necessary including the removal of such misconducting / inefficient persons, if so required by the Engineer-in-Charge.
- 1.10.9.10. The contractor shall ensure that replacement for such persons removed from site is provided immediately and the work is not allowed to suffer delay on that account.
- 1.10.10. DOCUMENTATION**
- 1.10.10.1. The following information shall be furnished by the bidder within two weeks of award of contract for purchaser's approval.
- a. Bar chart covering planned activities at site
  - b. Detailed organization chart
  - c. Details of T&P available with contractors with documents proofs.
- 1.10.10.2. The following information shall be furnished by the bidder after testing and inspection:
- a. Test certificates of various tests conducted at site. All inspection and test certificates shall be signed by customer's representative also, wherever called for as per field quality plan.
  - b. **As built drawings:** After successful completion, testing and commissioning of installation work, Purchaser's drawings / documents shall be updated in line with the actual work carried out and as built drawings / documents shall be submitted by the contractor as agreed for the project.
- 1.10.10.3. VOLUME-IA PART- II CHAPTER -4 of this booklet contains general guidelines for Erection and Commissioning of Illumination package.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

## VOLUME-IA PART-I CHAPTER-XI PROGRESS OF WORK

- 1.11.1 Refer forms F -14 to F-18 of volume I D (Forms & Procedure) of volume -I Book-II. Plan and review will be done as per the formats.
- 1.11.2 The progress reports shall indicate the progress achieved against plan, indicating reasons for delays, if any. The report shall also give remedial actions which the contractor intends to make good the slippage or lost time so that further works can proceed as per the original plan the slippages do not accumulate and affect the overall programme.
- 1.11.3 It is the responsibility of the contractor to provide all relevant information on a regular basis regarding progress of work, labour availability, equipment deployment, testing, etc.
- 1.11.4 Contractor is required to draw mutually agreed monthly work programs in consultation with BHEL well in advance. Contractor shall ensure achievement of agreed program and shall also timely arrange additional resources considered necessary at no extra cost to BHEL.
- 1.11.5 Progress review meetings will be held at site during which actual progress during the week vis-a-vis scheduled program shall be discussed for actions to be taken for achieving targets. Contractor shall also present the program for subsequent week. The contractor shall constantly update / revise his work program to meet the overall requirement. All quality problems shall also be discussed during above review meetings. Necessary preventive and corrective action shall be discussed and decided upon in such review meetings and shall be implemented by the contractor in time bound manner so as to eliminate the cause of nonconformities.
- 1.11.6 The contractor shall submit daily, weekly and monthly progress reports, manpower reports, materials reports, consumables (gases / electrodes) report, cranes availability report and other reports as per Performa considered necessary by the Engineer. The periodicity of the reports will be decided by BHEL Engineer at site.
- 1.11.7 The contractor shall submit weekly / fortnightly / monthly statement report regarding consumption of all consumables for cost analysis purposes.
- 1.11.8 The contractor shall submit a report of any damage, shortage, discrepancy etc., every week detailing in this regard.
- 1.11.9 The manpower reports shall clearly indicate the manpower deployed, category wise specifying also the activities in which they are engaged.
- 1.11.10 The monthly report as a booklet shall be submitted at the end of every month and shall contain the following details: -
  - a. Progress photographs in colour.
  - b. Work progress in terms of tonnage, welding joints, radiography, stress relieving, etc., completed as relevant to the respective work areas against planned.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

- c. Site Organization chart of engineers & supervisors as on the last day of the month with further mobilization plan.
  - d. Category- wise man hours engaged during the previous month under the categories of riggers, khalasis, gas-cutters, electricians, crane operators, store keepers, helpers, security etc. Data shall be split up under the work areas like material handling, verification, restacking, document maintenance etc.
  - e. Consumables report giving consumption of all types of gases and electrodes during the previous month.
  - f. Availability report of cranes.
  - g. Safety implementation report in the format.
  - h. Status of updation of details in MM Package / SCMS package of BHEL.
  - i. Any other inputs required from BHEL for activities planned during the subsequent month.
- 1.11.11 Tenderers have to furnish a list of Tools and Plants including cranes, Tractor / Trailers etc., which they propose to deploy for this work.
- 1.11.12 During the course of material Handling if the progress is found unsatisfactory or the materials are not unloaded in time without any delay or in the opinion of BHEL, if it is found that the skilled workmen like Riggers, operators, technicians and Helpers employed are not sufficient, BHEL will induct required additional workmen to improve the progress and recover them from contractor's bill, all charges incurred on this account including all expenses together with BHEL overheads.
- 1.11.13 The contractor shall submit weekly / fortnightly / monthly statement report regarding consumption of all consumables for cost analysis purposes.
- 1.11.14 The manpower reports shall clearly indicate the manpower deployed, category wise specifying also the activities in which they are engaged.
- 1.11.15 The contractor shall submit a report of any damage, shortage, discrepancy etc., every week detailing in this regard.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## **VOLUME-IA PART – II CHAPTER 1** **CORRECTIONS / REVISIONS IN SCC, GCC AND FORMS & PROCEDURES**

Sl No: 1

Following Clauses are Modified / Revised / Added in GCC as below:

<b>Sl no.</b>	<b>GCC Clause No.</b>	<b>GCC clause Modified / Revised / Added</b>
I.	1.9.1, Sl. No. (ii)	The following mode of deposit, Sl. No. (e) is added: e) Insurance Surety Bonds
II.	1.10.3, Sl. No. (vi)	The following Clause, Sl. No. (vi) is deleted: Security deposit can also be recovered at the rate of 10% of the gross amount progressively from each of the running bills of the contractor till the total amount of the required security deposit is collected. However, in such cases at least 50% of the required Security Deposit, including the EMD, should be deposited in any form as prescribed before start of the work and the balance 50% may be recovered from the running bills as described above
III.	1.10.3, Sl.No.(vii)	The following mode of deposit, Sl. No. (vii) is added: e) Insurance Surety Bonds
IV.	Note mentioned under the GCC Clause 1.10.3	Note mentioned under GCC Clause 1.10.3 is revised as below: Note: (1) BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith. (2) In case of delay in submission of security deposit, enhanced security deposit which would include interest (Repo rate +4%) for the delayed period, shall be submitted by the bidder.
V.	1.10.8	GCC Clause 1.10.8 is revised as below: Bidder agrees to submit security deposit required for execution of the contract within the time period mentioned. In case of delay in submission of security deposit, enhanced security deposit which would include interest (Repo rate+4%) for the delayed period, shall be submitted by the bidder. Further, if security deposit is not submitted till such time the first bill becomes due, the amount of security deposit due shall be recovered as per terms defined in NIT / contract, from the bills along with due interest

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

VI.	2.13.6	<p>GCC Clause 2.13.6 is revised as: The rate of interest applicable for the above advances shall be the repo rate prevailing on the date of release of advance plus 4%, and such rate will remain fixed till the total advance amount is recovered</p>
VII.	2.22.1	<p>GCC Clause 2.22.1 is revised as: Retention Amount shall be 5% of the Contract Value and shall be furnished through BG in line with clause 1.12 of GCC before payment of first RA Bill. The validity of the said BG shall be initially for the contract period &amp; shall be extended, if so required, up to acceptance of final bill. In case of increase in contract value, additional BG for 5% of differential amount shall be submitted by Contractor before payment of next RA Bill due. Retention Amount can also be recovered at the rate of 10% of the gross amount progressively from each of the running bills of the contractor till the total amount of the required retention amount is collected. In case, contractor opts cash deduction from RA bills in the beginning &amp; subsequently offers to submit BG later on, then refund of deducted retention amount may be permitted against submission of BG for 5% of the Contract Value.</p>

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

VIII.	New Clause is added and replace the existing clause of Risk & Cost (i.e. 2.7.2.1 to 2.7.3)	<p>Clause 2.7.2 and 2.7.3 are revised as:</p> <p><b>2.7.2 Breach of Contract, Remedies and Termination</b></p> <p>2.7.2.1 BHEL shall terminate the contract after due notice of a period of 14 days in any of the following cases, which if not rectified/ improved within the time period mentioned in the notice, then, Breach of Contract will be considered to have been established:</p> <p>i). Contractor s poor progress of the work vis- -vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available period considering its performance of execution. ii). Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. iii). Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor. iv). Repeated failure of contractor in deploying the required resources, to comply the statutory requirements etc. even after given by BHEL is writing. v). Strike or Lockout declared is not settled within a period of one month. vi). Termination of Contract on account of any other reason (s) attributable to Contractor. vii). Assignment, transfer, subletting of Contract without BHEL s written permission. viii). Non-compliance to any contractual condition or any other default attributable to Contractor.</p> <p><u>2.7.2.2 Remedies in case of Breach of Contract is established</u></p> <p>In case Breach of Contract is established, Security Deposit and Retention Amount shall be encashed/ forfeited. This is without prejudice to BHEL s right to levy of liquidated damages, debarment etc. which shall be applied as per the provisions of the contract. Sequence of recovery to be made in case of breach of contract is established, is as below:</p> <p>a) In case the value of Security Deposit &amp; Retention Amount, available for the Contract, is less than 10% of the Contract Value, the balance amount shall be recovered from dues available in the form of Bills payable to contractor, BGs against the same contract etc.</p>
-------	--	---

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

		<p>b) Demand notice for deposit of balance recovery amount shall be sent to contractor, if funds are insufficient to effect complete recovery against dues indicated in (a) above.</p> <p>c) If contractor fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery:</p> <p>i) Dues payable to contractor against other contracts in the same Region shall be considered for recovery. ii) If recovery cannot be made out of dues payable to the contractor as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor.</p> <p>iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor. Note:</p> <p>1) In addition to above, levy of liquidated damages, debarment, termination, short-closure etc. shall be applied as per provisions of the contract.</p> <p>2) If tendering is done for the balance work, the defaulted contractor (including all the members/partners in case of JV/ partnership firm) shall not be eligible for either executing the balance work or to participate in the tender(s) for executing the balance work.</p> <p>2.7.3 In case Contractor fails to deploy the resources as per requirement informed by BHEL in writing to expedite the work, BHEL can deploy own/hired/otherwise arranged resources and recover the expenses incurred from the dues payable to contractor. Recoveries shall be actual expenses incurred plus 5% overheads or as defined in TCC.</p>
--	--	---

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

IX.	2.7.7	<p>GCC Clause 2.7.7 is revised as:          BHEL may permit or direct contractor to demobilize and remobilize at a future date as intimated by BHEL in case of following situations for reasons other than Force majeure conditions and not attributable to contractor:</p> <ul style="list-style-type: none"> <li>i) suspension of work(s) at a Project either by BHEL or Customer,</li> <li>or</li> <li>ii) where work comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than three months</li> </ul> <p>In such cases, charges towards demobilization and remobilization shall be as decided by BHEL after successful remobilization by contractor at site, and decision of BHEL shall be final and binding on the contractor. After remobilization, all conditions as per contract shall become applicable. In case Contractor does not remobilize with adequate resources or does not start the work within the period as intimated, then BHEL reserves the right to terminate the contract and effect remedies under Clause 2.7.2.2. Duration of the contract/time extension shall be revised suitably. In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.</p>
X.	2.11.3	<p>GCC Clause 2.11.3 is revised as:          However, if any Time extension is granted to the contractor to facilitate continuation of work and completion of contract, due to backlog attributable to the contractor alone, then it shall be without prejudice to the rights of BHEL to impose penalty/LD for the delays attributable to the contractor, in addition to any other actions BHEL may wish to take under clause 2.7.2 of GCC i.e. Breach of Contract, Remedies and Termination .</p>
XI.	2.19.1	<p>GCC Clause 2.19.1 is revised as:          The contractor will be fully responsible for all disputes and other issues connected with his labour. In the event of the contractor s labour resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of one month, it may be considered as Breach of Contract under Clause 2.7 and the remedies under Clause 2.7.2.2 may be executed, at the discretion of BHEL.</p>

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

XII.	2.24.1	<p>GCC Clause 2.24.1 is revised as: Even though the work will be carried out under the supervision of BHEL Engineers the Contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of Twelve months from the date of commencement of guarantee period as defined in Technical Conditions of Contract, for good workmanship and shall rectify free of cost all defects due to faulty erection detected during the guarantee period. In the event of the Contractor failing to repair the defective works within the time specified by the Engineer, BHEL may proceed to undertake the repairs of such defective works, by itself, without prejudice to any other rights and recover the cost incurred for the same along with 5% overheads from the Security Deposit.</p>
------	--------	---

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

### **Sl. No.: 02**

In addition to The EARNEST MONEY DEPOSIT (EMD) clause 1.9 and The SECURITY DEPOSIT (SD) clause 1.10 published in General Conditions of Contract (Volume I Book II) following is added for FDR

1. FDR should be Lien marked in favour of M/s BHEL.
2. Bank issuing FDR should agree to the following conditions and submit duly signed letter addressed to BHEL, confirming the following points:
  - a) There is no Lock in Period for Encashment of the Said FDR
  - b) The amount under the Said FDR would be paid to BHEL-PSSR on Demand, at any point of Time before, or upon Maturity, without any reference to the ..... (Contractor Name).
  - c) Encashment whether premature or otherwise would not require any clearance from any other authority /Person.
  - d) FDR will be auto renewed for such period/s initially mentioned in the FDR and the intimation of Such renewal shall be sent to BHEL, PSSR and ..... (Contractor), immediately after the renewal.
  - e) FDR will not be closed, Encashed, Changed or Discharged without the Written permission/Confirmation from M/s BHEL PSSR.
  - f) Bank to acknowledge and agree that the Lien created on the FDR shall be in Force until M/s BHEL PSSR, gives a Discharge Letter in this regard.

### **Sl. No.: 03**

#### **Detailed Instruction for EMD / Security deposits through SBI e-collect:**

**Step 1: Vendors may visit SBI collect website**, the URL of which is <https://www.onlinesbi.sbi/sbicollect> where they get the home page with various categories of institutions.

**Step 2: Select PSU - Public Sector Undertakings** – leading to a page with list of PSUs

**Step 3: Type BHEL and search**, they get to see all BHEL divisions wherein they shall select BHEL PSSR Chennai. The screen shot of the same is given below.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

The screenshot displays the SBI Collect website interface. At the top, there is a navigation bar with the SBI logo and links for HOME, TRANSACTION HISTORY, FAQ'S, and CUSTOMER SUPPORT. Below this is a 'Payment Progress' section with a five-step flow: Select Payee (active), Enter Payment Details, Verify Payment Details, Complete Payment, and Print Receipt. The 'Select Payee' section is currently active, showing a search for 'bhel' and a filter by state set to 'Tamil Nadu'. The search results table is as follows:

Name of PSU-Public Sector Undertaking	State
<a href="#">BHEL BAP RANPET</a>	Tamil Nadu
<a href="#">BHEL PSSR CHENNAI</a>	Tamil Nadu

Below the table, it indicates 'Showing 1 to 2 of 2 entries (filtered from 113 total entries)'. A 'Back' button is located at the bottom of the search results. The footer of the page includes '© State Bank of India' and links for Privacy Statement, Disclosures, and Terms of Use.

**Step 4: Select EMD receipts.** Having selected the Payee in the Payment Progress, it will lead to the payment details – a drop down list of values. From that list, vendors shall select EMD receipts. Upon clicking the entry EMD receipts, a form will open asking for the remitters details and the details of the tender.

**Step 5: Confirm details and pay**

Fill in all the details correctly, verify the details, and complete the payment as it is leading to the payment gateway.

**Step 6: Take a printout** on completing the payment and enclose the copy of the same along with the bid submission. Store the copy of receipt for future reference.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

## **Sl. No: 4**

Following Clauses are Modified / Revised / Added in SCC as below

### a) OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT MANAGEMENT/ QUALITY ASSURANCE PROGRAMME

The following clauses in Occupational Health, Safety & Environment Management / Quality Assurance Programme published in Chapter-IX of Special Conditions of Contract (Volume I Book-II) is revised as under.

Chapter IX Clause 9.1 is modified as below:

Contractor will comply with HSE (Health, Safety & Environment) requirements of BHEL as per the "HSE Plan for Site Operations by Subcontractor" (Document No. HSEP: 14 Rev02) enclosed.

Chapter IX Clause 9.1.1 to 9.1.25 stands deleted.

Chapter IX Clause 9.2 to 9.62 stands deleted.

## **Sl No: 5**

Clause No. 10.5 on RA Bill Payments, in Special Conditions of Contract (SCC) Volume- IB, Book- II, is revised as under:

The payment for running bills will normally be released within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc., and other dues in the meanwhile.

**VOLUME-IA PART-II CHAPTER-2**

**PROCEDURES RELATED TO MATERIAL HANDLING,  
STORAGE & OTHER RESPONSIBILITIES AT BHEL STORES**

**2.1.1 PROCEDURE TO BE ADOPTED BY THE CONTRACTOR IN CASE OF  
SHORT / DAMAGED NON DELIVERED CONSIGNMENTS DESPATCHED  
BY ROAD**

**2.1.1.1 PROCEDURE FOR NON DELIVERED CONSIGNMENTS**

2.1.1.1.1 Apply for and obtain a certificate of Non-delivery from the Road carriers.

2.1.1.1.2 File a Notice of claim on the carriers sending the same to their registered office by Registered Post A.D. and forwarding a copy to their delivery office, immediately or within 6 months from the date of Lorry way Bill.

2.1.1.1.3 The following documents should be obtained and submitted to BHEL in charge at site.

- i. Original and Non-delivery certificates.
- ii. Copy of claim notice filed on the carriers.
- iii. Postal acknowledgement card or reply received for the claim notice.
- iv. If the package originally non-delivered is traced and offered for delivery at a later date, apply and obtain open delivery in respect of the same before clearance.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

**2.1.1.2 PROCEDURE FOR SHORT DELIVERY** (Non delivery of a few packages in the consignment)

2.1.1.2.1 Obtain a certificate of Short Delivery from the Road Carriers.

2.1.1.2.2 File a notice of claim on the carriers sending the same to their Registered Office by Registered post with A.D. and forwarding a copy to their delivery office immediately or within 6 months from the date of Lorry Way Bill.

2.1.1.2.3 Documents to be submitted to BHEL Site Engineer

- i. Original short delivery certificate.
- ii. Copy of claim notice filed on the carriers.
- iii. Postal acknowledgement or reply received, for the claim notice.
- iv. If the package originally short delivered is traced out and offered for delivery at a later date, apply for and obtain open delivery in respect of the same before clearance.

**2.1.1.3 PROCEDURE FOR SHORT / DAMAGE IN PACKAGES DELIVERED FROM THE ROAD CARRIERS**

2.1.1.3.1 Apply for and obtain open delivery from the road carriers.

2.1.1.3.2 If open delivery is refused.

a. Arrange for survey at the carrier's godown by a licenced insurance surveyor after giving notice in writing.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

---

---

b. Take delivery under protest in writing against acknowledgement or by Registered Post with A.D.

c. Make necessary endorsement regarding the loss/damage on the reverse of the consignee copy of the lorry way bill before surrendering

it to the carriers.

2.1.1.3.3 File a notice of claim on the carriers sending the same to their registered office by Registered Post with A.D. and forwarding a copy to the delivery office immediately or within 6 months from the date of lorry way bill.

2.1.1.3.4 Documents to be submitted to BHEL site In charge.

a. Claim Form

b. Insurance Policy / Certificate in Original (If specific document is issued)

c. Original open delivery certificate and report of Insurance survey if any conducted to the final destination.

d. Additional documents required in the event of refusal of open delivery by the carriers.

1. Copy of notice given to the carriers advising about the survey at their godown before clearance.

2. Survey report of the licensed insurance surveyor with the bill/receipt for payment of survey fee and expenses.

3. Copy of letter of protest extended to the carriers with the postal acknowledgement received thereto.

4. Photocopy of the lorry way bill with the endorsement of the discrepancies made thereon.