

भारत हेवी इलेक्ट्रिकल्स लिमिटेड **Bharat Heavy Electricals Limited**

High Pressure Boiler Plant, Tiruchirappalli – 620 014.

Phone: 0431 – 2571549, 1579,1519 Fax : 0431 - 2520212

E.mail: krishnasamad@bheltry.co.in

Website: www.bhel.com

CONTRACTS, CLAIMS & CLEARANCE / LOGISTICS

Ref No: LOG/CCC/12-13/1011EOI Dt: 16.11.2012

NOTICE INVITING EXPRESSION OF INTEREST (EOI)

FOR ENLISTMENT OF VENDORS / LOGISTICS SERVICE PROVIDERS FOR PARTICIPATING IN TWO PART TENDER FOR

THIRD PARTY LOGISTICS (3PL)

ACTIVITIES AT PLANT-II TIRUCHY AND PPPU THIRUMAYAM

Bharat Heavy Electricals Limited, Tiruchirappalli, hereby invites Expression of Interest (EOI) from the interested, resourceful, reputed Logistics Providers having logistics resources of their own to carry out the total logistics activities covering inbound, intra & outbound (identification, collection, accounting, handling, storage, documentation, transportation, safe delivery of materials and Customer / BHEL Site acknowledgement and all other connected activities etc.,) for (i) Unit-II, BHEL Tiruchirappalli & (ii) PPPU, BHEL Thirumayam

Based on the qualification criteria at Annexure-II, Vendors will be enlisted. There afterwards, for the enlisted Vendors / Logistics service providers only, two part Tender will be issued. The technical bid of the two part Tender will be opened and technical evaluation will be done. Only the price bids of those technically qualified Vendors will be opened and preceded for Contract finalization process.

The Logistics Providers are advised to go through the terms & conditions and tender schedules enclosed carefully before submitting their EOI.

In case of the applicant desiring to see the actual place of operation both Plant-II at Trichy & PPPU at Thirumayam, they are free to visit and see, to understand the requirements. However, applicant shall give five days advance intimation to BHEL/CCC/Logistics regarding their date of visit & confirmation on the date by CCC/Logistics, they can visit.

Interaction with Vendors / Logistics Service providers, on scope, and other conditions can be held to arrive at a common frozen scope of other conditions acceptable to BHEL. This scope & conditions frozen will be indicated on the two part Tender against which the price bid has to be submitted.

Date Signature of the Tenderer with seal (Authorized Signatory) Place:

The applicants may contact Engineer/CCC/Logistics (0431-2571579) & DGM/CCC/Logistics (0431-2571549), M/s. Bharat Heavy Electricals Limited, Tiruchirapalli – 620014, Email: krishnasamad@bheltry.co.in for any clarification required in this regard.

This notice for EOI comprises the following documents:-

(1) This Covering letter - LOG/CCC/12-13/1011EOI

(2) Terms & Conditions

(a) Scope of Work- Annexure-I(b) Activity Matrix- Annexure-II(c) Packing of components - Do and Don't- Annexure-III(d) Qualification Criteria- Annexure-IV(e) Terms & Conditions- Annexure-V(f) List of On-going Projects- Annexure-VI

The EOI shall be submitted duly enclosing the Earnest Money Deposit (EMD) of Rs.2,00,000/- by way of Demand Draft in favour of Bharat Heavy Electricals Limited, Trichy payable at Trichy. EOI submitted without EMD will be summarily rejected.

This is only request for an Offer and not Contract.

for Bharat Heavy Electricals Ltd.

(C.S. Gunasekaran) DGM/CCC/Logistics Stores Admin. Block, Near East Gate High Pressure Boiler Plant Tiruverumbur, Trichy-620014



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CONTRACTS, CLAIMS & CLEARANCE / LOGISTICS

ANNEXURE-I

SCOPE OF WORK

Ref No.: LOG/CCC/12-13/1011E Dt.16.11.2012

(A) SCOPE FOR UNIT-II – BHEL TIRUCHIRAPPALLI

Clause	Details	Remarks
1.0	Background Information	
1.1	 The High Pressure Boiler Plant (HPBP) of BHEL Trichy has four Manufacturing Units as given below 1. Unit-I (The major manufacturing Unit) located at Thiruverumbur in Trichy. 2. Unit-II (Located at a distance of 3 Km from Unit –I) 3. SSTP (Seamless Steel Tube Plant) 4. PPPU(Power Plant Piping Unit, located at Thirumayam in Pudukkottai District, at a distance of 80 Km from Unit-I) 	
1.2	Majority of input material (Direct and Indirect) for Unit-II are stocked in various stores in Unit-I. A few materials are stocked in stores located in Unit- II.	
1.3	Input Material is issued on a daily/weekly/ monthly basis through on line system	
1.4	Issued material is moved to Unit-II in suitable vehicles and unloaded and stacked at designated Stores/Shop Floors in Unit-II.	
1.5	In Unit-II, FGs/Products are manufactured in three different buildings namely Building 107, Building 108 and Building 117	
1.6	The Finished Goods(FG) manufactured in Unit-II are packed and transported directly to customer sites	
1.7	This scope consists of the following broad activities a) Movement of material between Unit-I and Unit-II b) Managing Stores in Unit-II c) Movement of Material with in Unit-II Between Various Shops (107, 108, 117) d) Managing Shipping Bays in Unit-II e) Movement of FGs to Customer Sites	
2.0	List of Activities	
2.1	Moving raw material(Pipes and Tubes) from Stores in Unit-I/Unit-II to shop floor in Unit-II	
2.1.1	Start event: On line Pick-slip shall be issued by BHEL/OP&C. On receipt of pick-slip, Vendor shall place his vehicle at the designated Store in Unit-I/Unit-II. Loading of vehicle shall be done by	

Date: Signature of the Tenderer with seal

Place: (Authorized Signatory) Page 3 of 85

	BHEL/Stores.	
	End event: Vendor shall place the loaded vehicle at the designated	
2.1.2	place in Shop Floor at Unit-II (un-loading shall be done by	
	BHEL/Shop).	
2.1.3	Description of Raw Material: - PIPES AND TUBES	
	Dimension:	
2.1.4	a) Pipes of OD 88.9 to 1160mm and Length 5 to 10m.	
	b) Tubes of OD 31.8 to 76.2 mm and Length 6 to 14.4m.	
2.1.5	Distance: Source to Destination	
2.1.5.1	Stores from where raw material has to be picked up are located	
2.1.3.1	both at Unit-I and Unit-II	
	75% of raw material has to be picked up from stores located at	
2.1.5.2	Unit-I. In this case, the distance between source and destination	
	shall be 3000m.	
0.1.5.0	Balance 25% of raw material has to be picked up from stores	
2.1.5.3	located at Unit-II. In this case, the distance between source and	
2.1.6	destination shall be 300m. Tons/Month: 3000 (AVERAGE) 5000 (PEAK)	
2.1.6	Tons/Month: 3000 (AVERAGE), 5000(PEAK) Number of trips per month: 120(Approx.)	
	Type of vehicle: Vendor to specify (SUGGESTED: 40 FEET	
2.1.8	TRAILER, TAURUS, TRACTOR WITH TROLLEY)	
2.1.9	Time taken to load vehicle: ≤ 4 Hours	
2.1.10	Time taken to load veinere: ⊆ 4 Hours Time taken to unload: ≤ 4 HRS (At Unit –II)	
2.1.11	Basis for payment: Rate per ton	
	Movement of Plates, Angles, Channels etc. from Rolled Product	
2.2	Store (RPS) in Unit –I to Open Yard in Unit -II	
2.2.1	Distance(Source to destination): 3000M	
2.2.2	Number of Trips per Month: 15	
2.2.3	Tons per Month: 100	
2.2.4	Start Event: BHEL shall issue Material Issue Voucher (MIV)/	
∠.∠.⊤	Stores Issue Voucher (SIV) on line.	
2.2.4.1	On receipt of MIV/SIV, vendor shall place appropriate vehicle at	
2.2.1.1	RPS located in Unit-I.	
2.2.5	At Rolled Product Store (RPS), Material (angles, plates, channels	
	etc.) shall be loaded on Vehicles by BHEL/RPS.	
2.2.6	Time taken to Load: ≤ 4 Hrs. at RPS	
2.2.7	End Event: Vendor shall place the loaded vehicle at the Open Yard	
	in Unit-II Unloading shall be done by the Wender Meterial Handling	
2.2.8	Unloading shall be done by the Vendor. Material Handling equipment for unloading shall be arranged by Vendor (Suggested:	
2.2.0	Mobile crane)	
2.2.9	Type of Vehicle: Vendor to specify	
2.2.10	Basis for payment: Rate per Ton	
	Moving components from Stores in Unit-I to Intermediate	
2.3	Stores in Unit-II	
2.2.1	Start Event: BHEL shall issue Material Issue Voucher (MIV)/	
2.3.1	Stores Issue Voucher (SIV) on line.	
2 2 1 1	On receipt of MIV/SIV, vendor shall place appropriate vehicle at	
2.3.1.1	the designated stores located in Unit-1.	
2.3.2	Vehicle shall be loaded by vendor at Stores.	
1	End Event: Vendor shall place the loaded vehicle at the designated	
233		
2.3.3	stores in Unit-II Unloading of vehicle and stacking of material shall be done by the	

	vendor.	
2.3.4	Distance (source to destination): 3000m	
2.3.5	Number of Trips per Month: 25	
2.3.6	Type of Vehicle: Vendor to Specify (Suggested: LCV)	
2.3.0	Material Handling Facility/Vehicle: Vehicle for material movement	
2.3.7	and Facility for handling material shall be provided by vendor.	
2.3.7	Majority of the material can be handled manually.	
2.3.8	Basis for payment: Rate per MT	
2.3.6		
2.4	Moving indirect material from Stores in Unit-I to Intermediate Stores in Unit-II	
2.4.1	Type of Material: All indirect materials like Safety Shoes, Uniform	
2.4.2	Cloth, Hoses, Tool Bits, Waste cotton etc.	
2.4.2	Start Event: BHEL shall issue MIV/SIV on line.	
2.4.2.1	On receipt of MIV/SIV, vendor shall place appropriate vehicle at	
2 4 2 2	the designated stores located in Unit-1.	
2.4.2.2	Vehicle shall be loaded by vendor at Stores	
2.4.3	End Event: Vendor shall place the loaded vehicle at the designated	
	stores in Unit-II	
2.4.3.1	Unloading of vehicle and stacking of material shall be done by the	
	vendor.	
2.4.4	Distance (source to destination): 3000m	
2.4.5	Number of trips per month: 60	
2.4.6	Type of Vehicle: Vendor to Specify (Suggested: LCV)	
	Material Handling Facility/Vehicle: Vehicle for material movement	
2.4.7	and Facility for handling material shall be provided by vendor.	
	Majority of the material can be handled manually.	
2.4.8	Basis for payment: Rate per MT	
2.5	MANAGING Five Intermediate Stores (Component / Indirect	
	Material/Open Yard) at Unit II	
2.5.1	Start Event: Receipt of Material	
2.5.2	End Event: Issue of material	
2.5.3	Number of Intermediate Stores: Two for Components , two for	
2.3.3	indirect material and one Open Yard	
2.5.4	Sizes of Intermediate stores for indirect material: 24m× 8.5m and	
4.3.4	18m×8.5m (Both Covered, kept under Lock and Key)	
	Type of Material kept in Intermediate Store for indirect material:	
2.5.5	Gloves, Safety Shoes, Soap, Towel, Uniform Cloth, Grinding	
	Wheel, Welding torch, Cable, Hose, Tool Bit etc.	
2.5.6	Sizes of Intermediate Stores for Components: 40m× 8.5m and	
2.3.0	36m×8.5m (Both Covered kept under Lock and Key).	
2.5.7	Type of material kept in Intermediate Stores for Components:	
2.3.1	Small components, around 200 material codes	
2.5.8	Size of Open Yard: 36m×8m	
2.5.9	Type of material kept in Open Yard: Angles, Channels, Beams,	
2.3.9	Plates	
	Material Handling Facilities: Vendor to specify (Mobile crane suggested	
2.5.10	under clause 2.2.8 can be used for this activity. Additionally a Diesel	
	Fork Lift may be needed for this activity)	
2.5.11	Traceability Requirements: Stock shall be maintained material code wise.	
	Attest Cards to be maintained for Components.	
2.5.12	Documentation requirements – Receipt & Issue ledger maintenance	
	D1	
2.5.13	Deployment of Manpower: : Vendor shall deploy manpower on single shift operation basis for this activity	

	DITEL "a aggregation of minimum mannager for this activity is indicated	
	BHEL's assessment of minimum manpower for this activity is indicated below	
2.5.14	a) Supervisor-2	
	b) Helper-5	
	Vendor shall ensure deployment of minimum manpower as indicated	
	above. Additional manpower if required for carrying out this activity	
2.5.15	smoothly shall be deployed by vendor and BHEL shall not compensate	
	for any additional manpower. Vendor shall be responsible for carrying	
	out the activity to BHEL's satisfaction.	
2.5.16	Basis for payment –Rate per month	
2.6	Movement of Welding Consumables from Stores in Unit-I to Consumables Stores in Unit-II	
2.6.1	Distance(Source to destination): 3000 M	
2.0.1	Tons per Month:	
2.6.2	a) Electrodes in Packets: 24 Tons per Month	
2.0.2	b) Others: 80 Tons per Month	
	Number of Trips per Month	
2.6.3	a) For Electrodes in Packets: 8	
	b) For Others: 8	
2.6.4	Type of Vehicle: Vendor to Specify (Preferred: For electrodes- Fork Lift	
2.0.1	; For Others- Truck)	
265	Start Event: Vendor shall place his vehicle at Stores in Unit-I based on	
2.6.5	requisition from BHEL (WTC). Loading of vehicle shall be done by	
	vendor. End Event: Vendor shall move and place the loaded vehicle at	
2.6.6	Consumable Store in Unit-II. Vendor shall unload the vehicle and stack	
2.0.0	the welding consumables in the store.	
2.6.7	Basis for payment –Rate per Ton	
	Movement of Welding consumables from Consumable Store in Unit-	
2.7	II to Shop Floors in Unit-II	
2.7.1	Distance(Source to destination): 300 M	
2.7.2	Tons per Month: 104	
2.7.3	Trips per Month: 60 (Daily two Trips)	
2.7.4	Type of Vehicle: Vendor to specify (Preferred: Fork Lift)	
	Start Event: Vendor shall place his vehicle at Consumable Stores in Unit-	
2.7.5	II based on requisition from BHEL (WTC). Loading of vehicle shall be	
	done by vendor.	
2.7.4	End Event: Vendor shall move and place the loaded vehicle at the	
2.7.6	designated location in Shop Floor (Unit-II). Vendor shall unload the	
277	vehicle and stack the welding consumables into the Owens. Rasis for payment. Pate per Top.	
2.7.7	Basis for payment –Rate per Ton Mayament of semi-finished sempenents (ECs Petrosen Verious)	
2.8	Movement of semi-finished components /FGs Between Various Buildings (107, 108, 117) in Unit -II	
2.8.1	Distance per trip: 500M approx.	
2.8.2	Type of Material: Semi-finished Products/FGs	
2.8.3	Tonnes per Month: 100	
2.8.4	Number of trips per month: 25	
2.0.7	Start Event: Vendor shall place his vehicle at the requested Shop Floor(
2.8.5	Unit-II) based on Requisition Form from BHEL (Shop/OP&C). Loading	
	of vehicle shall be done by BHEL (Shop)	
206	End Event: Vendor shall place the loaded vehicle at the destination Shop	
2.8.6	Floor (Unit-II). Un-loading shall be done by BHEL(Shop)	
2.8.7	Time taken to load ≤ 4 Hours	
2.8.8	Time taken to unload ≤ 4 Hours	
2.8.9	Type of Vehicle: Vendor to Specify (Suggested: 40 Feet Trailer, 70 Feet	
2.0.7	Trailer)	

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2.8.10	Basis for payment –Rate per Ton	
2.9	Movement of semi-finished components between Unit-II and Unit-I	
2.9.1	Distance per trip: 3000M approx.	
2.9.2	Type of material to be moved: Semi-finished Products (Water Wall	
	Panels, Burner Panels, Headers etc.)	
2.9.3	Approximate Tonnes per Month: 100	
2.9.4	Number of Trips per month : 60	
	Start Event: Vendor shall place his vehicle at the requested Shop	
2.9.5	Floor (Unit-I or Unit-II) based on Requisition Form from BHEL	
	(Shop/OP&C). Loading of vehicle shall be done by BHEL (Shop)	
	End Event: Vendor shall move and place the loaded vehicle at the	
2.9.6	destination Shop (Unit-I or Unit-II). Un-loading shall be done by	
	BHEL(Shop)	
2.9.7	Time taken to load ≤ 4 Hours	
2.9.8	Time taken to unload ≤ 4 Hours	
2.9.9	Type of Vehicle: Vendor to Specify(Suggested: 40 Feet Trailer, 70	
	Feet Trailer)	
2.9.10	Basis for payment –Rate per Ton	
2.10	Moving Scrap from Shops in Unit-II to Disposal Stores in Unit-	
2.10.1	I Distance(Source to Destination): 3000M approx.	
2.10.1	Type of material to be moved: Metal scrap	
2.10.2	Tons per month:300	
2.10.3	Number of trips per month: 30	
2.10.4	Scrap is moved in Bins of size 3m×2m×2m. Around 8 bins are to be	
2.10.5	moved per day, each holding around 1 to 1.5 Tonnes of scrap. These Bins	
2.10.5	are generally kept on Trolleys. Vendor shall move these trolleys loaded	
	with bins using suitable vehicle.	
	Start Event: Vendor shall place his vehicle at the requested place based	
2.10.6	on Requisition Form from BHEL (Shop).BHEL (Shop) shall load the bins	
	on trolleys. Vendor shall move the trolleys to disposal store in Unit- I.	
2.10.7	End Event: Vendor shall place the loaded trolleys at the designated place in Disposal Store (Unit-I). Un-loading shall be done by BHEL (Stores).	
2.10.7	Vendor shall move back the trolleys with empty bins to Unit-II.	
2.10.8	Time taken to unload: 4Hrs (approx.)	
2.10.9	Type of vehicle: Vendor to specify (Preferred: Fork Lift)	
2.10.10	Basis for payment –Rate per Ton	
2.11	Movement of Cut Bits from Shops in Unit-II to Stores in Unit -II	
2.11.1	Type of material to be moved: Pipe and Tube Bits	
2.11.2	Distance(Source to Destination): 300M approx.	
2.11.3	Tons per month:50	
2.11.4	Number of trips per month: 15	
2.11.5	Start Event: Vendor shall place his vehicle at the requested place based	
۵.11.	on Requisition Form from BHEL (Shop). Vendor shall load the Vehicle.	
2.11.6	End Event: Vendor shall move and place the loaded vehicle at the	
	designated place in Store (Unit-II). Un-loading shall be done by Vendor. Time taken to load ≤ 4 Hours	
2.11.7 2.11.8	Time taken to load \leq 4 Hours Time taken to unload \leq 4 Hours	
2.11.8	Type of vehicle: Vendor to specify	
2.11.9	Basis for payment –Rate per Ton	
2.11.10	Managing Shipping Bay	
2.12.1	Number of shipping Bays: Two (one each in Building 107 and 108)	
2.12.1	Size of Shipping Bays: 180M × 30M (each)	
2.12.3	Handling Facilities In Shipping Bays: Two 20 Ton EOT Cranes and One	

	10 Ton EOT Crane in each Bay.	
2.12.4	The EOT Cranes shall be maintained by BHEL	
2.12.5	Vendor shall operate EOT Cranes using his Operators and Riggers	
2.12.5.1	Vendor shall employ only experienced Operators and Riggers	
	The vendor shall ensure that the operators and riggers employed by him	
2.12.5.2	possess proper vision (eye sight).	
2.12.5.3	The skill level of Operators and Riggers shall be checked by BHEL.	
2.12.5.4	All lifting tackles shall be provided by BHEL.	
2.12.6	Inventory: 1000 Tonnes (Average),2000 Tonnes (Peak)	
2.12.7	Start Event: Receipt of FG by vendor along with Handing Over Format issued by BHEL.	
2.12.8	FGs manufactured in Building 107 and 108 shall be moved by BHEL and placed near Shipping Bay on Transfer Tracks or Battery Operated Trolleys.	
2.12.8.1	FGs manufactured in Building 117 shall be moved by Vendor to shipping Bay in Building 107. This activity is covered under clause 2.4.1	
2.12.8.2	Trolleys shall be maintained by BHEL.	
2.12.8.3	FGs placed on Transfer Tracks have to be manually pushed/ rolled and moved to Shipping Bay by the vendor.	
2.12.9	End Event: Stacking FGs by vendor after painting and WO identification	
2.12.10	Description of FGs: Panels/Coils/Headers/Pipes/Risers/Links	
2.12.11	Surface cleaning: Vendor shall deploy manual surface cleaning methods using appropriate tools (EMERY, GRINDER WITH BUFFING WHEEL)	
2.12.12	Painting: Vendor shall carry out Brush Painting in Bldg. 108 and Dip Painting in Bldg. 107	
2.12.12.1	After painting, Vendor shall write WO No. on each FG using white paint	
2.12.12.2	BHEL shall supply paint, brush and all other tools.	
2.12.13	Vendor shall do Packing/Crating as per BHEL instruction (refer "Packing and Crating Instructions")	
2.12.13.1	Wood/ Angles/ Sheet/ Welding electrode/End Caps required for packing/crating shall be provided by BHEL.	
2.12.13.2	Vendor shall use his welder for fabricating crates.	
2.12.13.3	All necessary welding equipments shall be provided by BHEL.	
2.12.13.4	Approximately 30% of the consignments may need crating.	
2.12.14	Deployment of Manpower: : Vendor shall deploy manpower on two shift operation basis for this activity	
2.12.14.1	BHEL's assessment of minimum manpower per shift for this activity is indicated below a) Executive-1 b) Supervisor-2 c) Clerk-1 d) Welder/fitter-4 e) Crane operator-6 f) Rigger-6 g) Painter-5 h) Helper-22	
2.12.14.2	Vendor shall ensure deployment of minimum manpower as indicated above. Additional manpower if required for carrying out this activity smoothly shall be deployed by vendor and BHEL shall not compensate for any additional manpower. Vendor shall be responsible for carrying out the activity to BHEL's satisfaction.	
2.12.15	Basis for payment –Rate per Ton of material received into Shipping Bay	
2.13	TRANSPORTING FGs TO SITES	
2.13.1	Start Event: Commercial Clearance	
2.13.2	End Event: H/O Acknowledged Lorry Weigh Bill to BHEL/Logistics.	

2.13.3	Tons/Annum: 25000(First Year), 36000 (Second Year)	
2.13.4	Number of Sites: 100 (APPROX)	
2.13.5	MIN DISTANCE: 175 Km	
2.13.6	MAX DISTANCE: 3750 Km	
2.13.7	TYPES OF VECHICLE REQUIRED: a) 40 Feet Trailer(27 Ton capacity), 70 Feet Trailer(25 Ton capacity), Taurus(16 Ton capacity) and Lorry b) Approximately, 45% of Consignments may need deployment of 40 Feet Trailers, another 45% of Consignments may need deployment of 70 Feet Trailers, 7% may need deployment of Taurus and balance 3% may need deployment of Lorry.	
2.13.8	Distance to a given destination shall be provided by BHEL and shall be used for computing payments.	
2.13.9	For making up full loads, the vendors shall pickup FGs from Unit-1	
2.13.9.1	Approximate quantum of FGs to be picked up from Unit-1 will be 2000 tons per annum. This shall be treated as activity under clause 2.9 for payment purpose.	
2.13.10	Basis for payment: Rate per KM.	
3.0	General terms and Conditions: The vendor shall comply with all statutory requirements notified from time to time. For details refer the document "General Terms and Conditions".	
3.1	Human resource	
3.1.1	Wages: The vendor shall ensure payment of minimum wages to his personnel as per Statute.	
3.1.2	 Insurance: a) The vendor shall take insurance cover for all persons engaged by him. b) The insurance cover shall be for the entire period of contact. c) The contract shall comply with the provisions of the workmen compensation act 1923. (this should be read in conjunction with the provisions of ESI Act). 	
3.1.3	 Medical: a) BHEL shall not be responsible for medical treatment of personnel engaged by the Vendor. b) The Vendor shall provide medical treatment to his staff and labour in case of accident on duty. c) BHEL shall in no manner be liable to the Vendor or any members of his staff for injury or death caused as a result of accidents either within or outside the yard/premises any other areas of work in course of work. d) The Vendor shall be wholly responsible for and shall make good all claims for compensation claimed by his labour and or staff under the Workmen's Compensation Act. e) The Vendor shall indemnify BHEL and discharge all sums that may be awarded in respect of claims for compensation arising out of or consequent to the provisions of Workmen's Compensation Act or any subsequent modification or amendments thereof. 	
3.1.4	Canteen: The Vendor's personnel shall be allowed to use Canteen facilities available in BHEL during allotted time slots. The Vendor's personnel shall pay charges, fixed by BHEL from time to time, for using canteen facilities.	
3.1.5	UNIFORM: a) Vendor shall provide uniform to all persons engaged by him. b) Vendor shall ensure that all his employees wear Uniform. c) The uniform shall be distinct from BHEL,s uniform.	
3.1.6	Access Permission/Identity Card: a) Vendor shall ensure that all his employees wear identity card	

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	provided by vendor.	
	b) Vendor shall obtain from BHEL access permission in the form of	
	PASS for all personnel engaged by him.	
	Safety:	
	a) The vendor shall provide the required Personal Protective	
	Equipments (safety shoes, hand gloves, helmets, safety goggles	
3.2	etc.,) to his employees.	
3.2	b) Personal Protective equipment should be of good quality / have	
	certification by Indian Standard Institute.	
	c) Vendor shall ensure that his personnel use Personal Protective	
	Equipments without fail.	
3.2.1	Drivers: All drivers engaged by vendor shall have Valid Driving License	
3.2.2	Crane Operators and Riggers: Vendor shall engage only trained Crane	
3.2.2	operators and riggers.	
	Vehicles:	
2 2 2	a) All vehicles used by Vendor shall be in good condition.	
3.2.3	b) All vehicles shall have valid Registration, Fitness certificate.	
	c) All vehicles shall have valid insurance cover.	
	PAYMENTS	
	a) The Vendor at the end of each month shall submit a bill in	
	triplicate detailing the various items of work done during the	
3.3	month supported by the requisitions issued from time to time.	
	b) BHEL shall make all payments to Vendor by "Electronic Fund	
	Transfer (EFT)"within a reasonable time after the certification of	
	bills by BHEL	
4.0	Price Quotes: Vendor shall quote for all activities listed and explained in	
4.0	this tender scope as per "Schedule of activities for Unit-II".	
	Deployment of Resources: All necessary resources required for carrying	
	out all the above activities detailed under clause 2 as per this scope shall	
	be arranged, maintained and paid for by the vendor. The vendor	
	shall clearly mention deployment of the following resources	
5.0	a) Vehicles/ Mobile Cranes: Type and Number of Vehicles/Mobile	
	Cranes	
	b) Personnel: Grade-wise (Executive/Supervisor/ Clerk/Crane	
	Operator/Rigger/Welder/Fitter/Driver/Painter/ Helper) number of	
	personnel.	
	personner.	

(B) SCOPE FOR PPPU – BHEL THIRUMAYAM

Clause	Details	Remarks
1.0	Background Information	
1.1	 The High Pressure Boiler Plant (HPBP) of BHEL Trichy has four Manufacturing Units as given below 1. Unit-I (The major manufacturing Unit) located at Thiruverumbur in Trichy. 2. Unit-II (Located at a distance of 3 Km from Unit –I) 3. SSTP (Seamless Steel Tube Plant) 4. PPPU(Power Plant Piping Unit, located at Thirumayam in Pudukkottai District, at a distance of 80 Km from Unit-I) 	
1.2	All input material (Direct and Indirect) for PPPU are stocked in various stores in Unit-I	
1.3	Input Material is issued on a daily/weekly/ monthly basis through on line system	
1.4	Issued material is moved to PPPU in suitable vehicles and unloaded and stacked at designated Stores	
1.6	The Finished Goods(FG) manufactured in PPPU are packed and transported directly to customer sites	
1.7	This scope consists of the following broad activities a) Movement of material between Unit-I and PPPU b) Managing Stores in PPPU c) Movement of Material within PPPU d) Managing Shipping Bay in PPPU e) Movement of FGs to Customer Sites	
2.0	List of Activities	
2.1	Moving material from Stores in Unit-I to Stores in PPPU	
2.1.1	Start event: Vendor shall place vehicle at Stores in Unit-I. This will be triggered by Reservation generated by BHEL (Unit I-OP&C /MM) online. BHEL (Stores) shall load the vehicle. Stores are also located in and around Unit-I like the Rolled Products Store (RPS), Stores in SSTP etc. from where material has to be picked up.	
2.1.2	End event: Unloading Vehicle at Stores in PPPU-Thirumayam. Unloading shall be done by the Vendor.	
2.1.3	Description of Material: Pipes/Tubes/Plates/Rounds/Forgings/Castings/Components/ Welding Consumables/ All Indirect Materials. Around 80% will be Pipes.	
2.1.4	Dimension: Pipes of OD (88.9 to 1064mm) & length (5-9mtrs.)	
2.1.5	Distance (source to destination): 80 Km.	
2.1.6	Tons/Month: 2000 (AVERAGE), 3000(PEAK)	
2.1.8	Type of vehicle: Vendor to specify (Suggested:40 Feet Trailer, 16 Ton Taurus, 10 Ton Lorry, LCV)	
2.1.9	Time taken to load Vehicle: 4 Hours	
2.1.10	Handling facility at Pipe Stores In Unit-I: 30 Ton Gantry Crane- 2 Nos., 10 Ton Mobile Crane- 2 Nos.	
2.1.11	Handling facility at Stores In Thirumayam: Two Gantry Cranes one each of 30 Ton and 15 Ton Capacity.	
2.1.12	Performance Parameters: Number of days from Reservation to stock Posting at Thirumayam. Expected level – 4 days(start to end)	
2.1.13	Basis for payment: Rate per Ton	
2.2	Managing Stores at PPPU Thirumayam	

	Size and Number of Covered Stores: One Covered Store of size 64 M ×	
2.2.1	28 M	
2.2.2	Size and Number of Open Storage Yards: One Open Storage Yard of size $180 \text{ M} \times 30 \text{ M}$	
2.2.3	Material handling facilities in Stores: a) Covered Store-No material handling facilities b) Open Storage Yard -Two Gantry Cranes of capacity 30t & 15t shall be provided by BHEL. c) The cranes shall be manned by Vendor	
	 d) The Cranes shall be maintained by BHEL e) Vendor shall employ experienced and trained crane operators and riggers 	
2.2.4	Number of Material Codes: a) For pipes: 200 approx. b) For other materials/components: 200 approx. c) Increase of 15% in number of material codes/volume of material handled is anticipated year after year	
2.2.5	Average Inventory Planned: 2000 tons (first year), 4000 tons (second year)	
2.2.6	Approximate Number of GRs(Goods Receipt) per day: 10(incoming – receipts)	
2.2.7	Approximate Number of GIs(Goods Issue) per day: 25 (issues to shop)	
2.2.8	Preservation Requirements: a) Application of preservative shall be need based(Approximately 20% of the projected inventory per annum) b) Need for applying preservative shall be identified by BHEL. c) Preservative shall be applied by Vendor d) Preservative and other connected consumables shall be provided by BHEL e) After applying preservative, Vendor shall ensure stencilling for proper identification of material.	
2.2.9	Inspection Requirements: a) Incoming and Issue Inspection shall be carried out by BHEL b) Vendor shall coordinate and assist for Incoming and Issue Inspection	
2.2.10	Documentation Requirements – Generation & maintenance of periodical MIRs on Material Receipts, Issues, Inventory etc.	
2.2.11	Manpower deployment: Vendor shall deploy manpower on single shift operation basis for this activity	
2.2.11.1	BHEL's assessment of minimum manpower for this activity is indicated below c) Executive-1 d) Supervisor-2 e) Clerk-2 f) Welder/fitter-1 g) Crane operator-2 h) Rigger-2 i) Helper-7	
2.2.11.2	Vendor shall ensure deployment of minimum manpower as indicated above. Additional manpower if required for carrying out this activity smoothly shall be deployed by vendor and BHEL shall not compensate for any additional manpower. Vendor shall be responsible for carrying out the activity to BHEL's satisfaction.	
2.2.12	Basis for payment –Rate per Ton of material received into stores.	
2.3	Moving Material from Stores to Shop Floor Start Event: BHEL(PPPU/OP&C) shall generate On Line Requisition	
2.3.1	(Pick-slip). On receipt of Pick-slip, the Vendor shall load the requested	

	material on his Vehicle and move it to the designated place in the Shop Floor.	
2.3.2	End Event: Place the loaded Vehicle at the designated place in Shop	
	Floor (Un-loading shall be done by BHEL/ Shop) Sizing raw material for Issue –	
	a) Gas cutting of raw materials (other than P91) to the required	
2.3.3	length shall be done by Vendor.	
2.3.3	b) All equipments and consumables shall be provided by BHEL.	
	c) Vendor shall employ trained Welder/Fitter for Gas Cutting.	
2.3.4	Distance (Source to Destination): 150-200 M	
2.3.5	Tons/Month: 3000(Peak), 2000 (Average)	
2.3.6	Type of Vehicle: Vendor to specify.	
2.3.0		
	Handling facility at Stores:	
	a) The Vendor shall use Gantry cranes in Open Yard for loading	
2.3.7	purpose.b) The vendor shall deploy trained Operators and Riggers for	
	manning Cranes.	
	c) The crane shall be maintained by BHEL.	
220	Handling facility at Shop: 20 T EOT Crane: 2 numbers and 10 T EOT	
2.3.8	Crane: 1number	
2.3.9	Time taken to unload: <3 Hrs.	
2.3.10	Expected performance level – Pick slip to placement of loaded Vehicles at Shop Floor $< 4 Hrs$.	
2.3.11	Basis for payment: Rate per Ton of material issued and moved to shop	
2.3.11	floor	
2.4	Moving Cut Bits from Shop to Stores and Scrap from Shop to	
	Start Event: Paguisition from PHEI /PDDII/Shaps	
2.4.1	Start Event: Requisition from BHEL/PPPU/Shops End Event: Unload Vehicle at Starce/Disposal yard	
2.4.2	End Event: Unload Vehicle at Stores/Disposal yard Vendor shall load and unload the vehicle.	
2.4.3		
2.4.4	Vendor shall stack the unloaded material category/ specification wise. Distance	
2.4.5	a) Shop to Store: 150 to 200 M (approx.)	
2.4.3	b) Shop to Scrap yard: 500 M (approx.)	
2.4.6	Tons per month:100	
2.4.7	Number of trips per month:30	
2.4.8	Type of Vehicle: Vendor to specify	
2.4.9	Basis for payment: Rate per ton	
2.5	Managing Disposal Yard	
2.5.1	Start Event: Vendor shall unload Vehicle	
2.5.2	End Event: Vendor shall stack the unloaded material category wise	
2.5.3	Size of Disposal Yard: 120m×30m(Approx.)	
	Material Handling Facility in Disposal Yard: Vendor shall deploy his	
2.5.4	equipment (Mobile Crane/Fork Lift).	
2.5.5	Documentation: Receipt and disposal ledger	
2.5.6	Stacking and Segregation: Category wise	
	Manpower deployment: Vendor shall deploy manpower on a single shift	
2.5.7	operation basis for this activity. Minimum manpower indicated in	
	2.2.11.1 can be suitably deployed to carry out this activity also.	
2.5.8	Basis for payment: Rate per ton of material received into the disposal	
	yard. Managing Shinning Pay	
2.6	Managing Shipping Bay Start Event: Handing over Format by BHEL/Shop	
2.6.1	Start Event: : Handing-over Format by BHEL/Shop End event: Steeking ofter pointing and WO identification	
2.6.2	End event: Stacking after painting and WO identification.	
2.6.3	Description of FGs: Pipe Bends & Straights	

2.6.4	Tons/Month: 1500(First Year), 2600(Second Year)	
	Type of vehicle for moving FGs from Shop to Shipping:	
	a) Battery Operated Trolleys shall be provided by BHEL.	
2.6.5	b) BHEL/Shop shall load FGs on trolleys.	
	c) Vendor shall unload trolleys at Shipping Bay.	
	d) Trolleys shall be maintained by BHEL.	
2.6.6	Expected time to unload trolleys: ≤2 Hrs.	
2.6.7	Handling facility at Shipping Bay: 20 T EOT CRANE- 2 numbers and	
	10 T EOT CRANE- 1 number	
2.6.8	Area: 180 M ×30 M	
2.6.9	Average inventory: 500 Tons	
	Surface cleaning and painting: a) Vendor shall do manual surface cleaning of FGs using	
	a) Vendor sharr do manuar surface cleaning of FGs using appropriate tools (Emery, Grinder with Buffing Wheel).	
	b) All tools and equipments required for surface cleaning shall be	
	provided by BHEL.	
	c) Vendor shall do spray/brush painting of FGs.	
2 (10	d) BHEL shall provide a painting booth.	
2.6.10	e) BHEL shall maintain the painting booth.	
	f) Cleaning of painting booth and all associated equipments at the	
	end of each Shift shall be done by Vendor.	
	g) Vendor shall remove the sludge and move it to Disposal Store	
	periodically to ensure good upkeep of the Painting Booth	
	h) Paint and all tools and equipments for painting shall be provided	
	by BHEL. a) Packing and crating (if required) shall be done by Vendor	
	a) Packing and crating (if required) shall be done by Vendor (Approximately 25% of FGs handled at Shipping Bay may	
	require Crating).	
2.6.11	b) Curved and straight wooden blocks shall be arranged by BHEL.	
2.0.11	c) Steel, welding consumables, welding power sources and other	
	consumables/equipments required for crating shall be provided	
	by BHEL.	
2.6.12	Stacking: Vendor shall stack and store all painted FGs project wise.	
2.6.13	Rework cost will be deducted from payment in case of damage during	
	handling of finished components.	
2.6.14	Performance parameter: time taken from receipt of handing over format	
2.6.15	to completion of pre-despatch inspection (2days). Basis for payment – Rate per ton of FG received at Shipping Bay.	
	The vendor shall ensure deployment of manpower for one shift operation	
2.6.16	during the first year and for two shift operation during the second year.	
	BHEL's assessment of minimum manpower for this activity on a single	
	shift basis is indicated below	
	a) Executive-1	
	b) Supervisor-2	
2.6.16.1	c) Clerk-1	
	d) Welder/fitter-1	
	e) Crane operator-3 f) Rigger-3	
	g) Painter-4	
	h) Helper-10	
	Vendor shall ensure deployment of minimum manpower in each shift as	
	indicated above. Additional manpower if required for carrying out this	
2.6.16.2	activity smoothly shall be deployed by vendor and BHEL shall not	
	compensate for any additional manpower. Vendor shall be responsible for	
	carrying out the activity to BHEL's satisfaction.	
2.7	Transporting FGs to Sites: Vendor shall load FGs on	
	appropriate vehicles and move them to designated Sites.	

2.7.1	Start Exant: Commorpial Clarence	
2.7.1	Start Event: Commercial Clearance End Event: H/O acknowledged Lorry Weigh Bill to BHEL/Logistics	
	Tons/Annum (Approximate): 20,000 (First Year), 30,000 (Second	
2.7.3	Year)	
2.7.4	Number of Sites: 100 (approx.)	
	Distances:	
	a) Minimum: 125Km	
2.7.5	b) Maximum: 3750 Km	
	c) Transit distance: The transit distance to each site shall be	
	provided by BHEL and will be the basis for payments.	
	Types of vehicle required: 40 Feet Mechanical Trailers, Taurus and Lorry. Approximately 80% of consignments may require 40 Feet	
	Mechanical Trailers, 5% of consignments may require Lorry and 15% of	
2.7.6	consignments may require Taurus. Majority of 40 Feet Trailers deployed	
	will fall under double axle category with a maximum capacity of 22 Tons.	
	A few consignments may call for deployment of Triple Axle 40 Feet	
	Trailers with a maximum capacity of 27 Tons.	
2.7.7	Basis for payment:	
	Rate per Km per MT General terms and Conditions: The vendor shall comply with all	
3.0	statutory requirements notified from time to time. For details refer the	
	document "General Terms and Conditions".	
3.1	Human resource	
3.1.1	Wages: The vendor shall ensure payment of minimum wages to his	
J.1.1	personnel as per Statute.	
	Insurance:	
	d) The vendor shall take insurance cover for all persons	
	engaged by him.	
3.1.2	e) The insurance cover shall be for the entire period of contract.	
	f) The contractor shall comply with the provisions of the	
	workmen compensation act 1923 (this should be read in	
	conjunction with the provisions of ESI Act).	
	Medical:	
	f) BHEL shall not be responsible for medical treatment of	
	personnel engaged by the Vendor.	
	g) The Vendor shall provide medical treatment to his staff and labour in case of accident on duty.	
	h) BHEL shall in no manner be liable to the Vendor or any	
	members of his staff for injury or death caused as a result of	
	accidents either within or outside the yard/premises any other	
3.1.3	area of work in course of work.	
	i) The Vendor shall be wholly responsible for and shall make good	
	all claims for compensation claimed by his labour and or staff under the Workmen's Compensation Act.	
	j) The Vendor shall indemnify BHEL and discharge all sums that	
	may be awarded in respect of claims for compensation arising	
	out of or consequent to the provisions of Workmen's	
	Compensation Act or any subsequent modification or	
	amendments thereof. Canteen: The Vendor's personnel shall be allowed to use Canteen	
2.1.4	facilities available in BHEL during allotted time slots. The Vendor's	
3.1.4	personnel shall pay charges, fixed by BHEL from time to time, for using	
	canteen facilities.	
215	Uniform:	
3.1.5	a) Vendor shall provide uniform to all persons engaged by him. b) Vendor shall ensure that all his ampleyees wear Uniform.	
	b) Vendor shall ensure that all his employees wear Uniform.	

	a) The puriforms shall be distinct for an DIDI	1
	c) The uniform shall be distinct from BHEL,s uniform.	
3.1.6	 Access Permission/Identity Card a) Vendor shall ensure that all his employees wear identity card provided by vendor. b) Vendor shall obtain from BHEL access permission in the form of PASS for all personnel engaged by him. 	
3.2	Safety: a) The vendor shall provide the required Personal Protective Equipments (safety shoes, hand gloves, helmets, safety goggles etc.,) to his employees. b) Personal Protective equipment should be of good quality / have certification by Indian Standard Institute. c) Vendor shall ensure that his personnel use Personal Protective Equipments without fail.	
3.2.1	Drivers: All drives engaged by vendor shall have Valid Driving License	
3.2.2	Crane Operators and Riggers: Vendor shall engage only experienced and trained Crane operators and riggers.	
3.2.3	Vehicles: a) All vehicles used by Vendor shall be in good condition. b) All vehicles shall have valid Registration, Fitness certificate. c) All vehicles shall have valid insurance cover.	
3.3	PAYMENTS a) The Vendor at the end of each month shall submit a bill in triplicate detailing the various items of work done during the month supported by the requisitions issued from time to time. b) BHEL shall make all payments to Vendor by "Electronic Fund Transfer (EFT)" within a reasonable time after the certification of bills by BHEL	
4.0	Price Quotes: Vendor shall quote for all activities listed and explained in this tender scope as per "Schedule of Activities for PPPU".	
5.0	Deployment of Resources: All necessary resources required for carrying out all the above activities detailed under clause 2 as per this scope shall be arranged, managed, maintained and paid for by the vendor. The vendor shall clearly mention deployment of the following resources c) Vehicles/ Mobile Cranes: Type and Number of Vehicles/Mobile Cranes d) Personnel: Grade-wise (Executive/Supervisor/ Clerk/Crane Operator/Rigger/Welder/Fitter/Driver/Painter/ Helper) number of personnel.	

Note: BHEL will provide necessary space at Unit-II and PPU-Thirumayam for the successful Vendor to establish his local office

ANNEXURE-II

ACTIVITY MATRIX

Ref No.: LOG/CCC/12-13/1011E Dt.16.11.2012

(A) ACTIVITY MATRIX FOR UNIT-II – BHEL TIRUCHIRAPPALLI

1 MATERIAL MOVEMENT

				334	226	100	Load	ling	Unloa	ading	Jane Bridge	A
Type of Matl	From	То	Trigger Document	Distance (Metres)	Tons/ Month	Trips/ Month	Scope	Time (max) Hrs	Scope	Time (max) Hrs	Type of Vehicle	Basis for payment
Pipes / tubes	Unit-1 Stores	Unit-2 Shops	Pick-Slip	3000	2250	-	BHEL	4	BHEL	4	Vendor to specify	Rate per Ton
Pipes / tubes	Unit-2 Stores	Unit-2 Shops	Pick-Slip	300	750	195	BHEL	4	BHEL	4	Vendor to specify	Rate per Ton
Plates / Angles	RPS	Unit-2 Intermediate Stores	MIV/SIV	3000	100	15	BHEL	4	Vendor		Vendor to specify	Rate per Ton
Components	Unit-1 Stores	Unit-2 Intermediate Stores	Pick-Slip	3000	-	25	Vendor	-	Vendor). [[]	Vendor to specify	Rate per Trip
Indirect Matl	Unit-1 Stores	Unit-2 Intermediate Stores	MIV/SIV	3000		60	Vendor		Vendor		Vendor to specify (LCV/MINI	Rate per Trip
Welding	Unit-1 Stores	Unit -2 Consumable	MIV/SIV	3000	80	8	Vendor	-	Vendor		Vendor to specify(Prefered-	Rate per Ton
consumables	Offic-1 Stores	Stores	MIV/SIV	3000	24	8	Vendor		Vendor		Vendor to specify(Prefer ed-fork lift)	Rate per Ton
Welding consumables	Unit -2 Consumable Stores	Unit-2 Shops	Trip Sheet / Requisition Form	300	104	60	Vendor		Vendor	1-11-11	Vendor to specify(Prefer ed-fork lift)	Rate per Ton
Semi finished	Unit-2 Shop A	Unit-2 Shop B	Trip Sheet / Requisition Form	500	100	25	BHEL	4	BHEL	4	Vendor to specify	Rate per Ton
Semi finished	Unit-2 Shop	Unit -1 Shop	Trip Sheet / Requisition Form	3000	100	60	BHEL	4	BHEL	4	Vendor to specify	Rate per Ton
Scrap	Unit-2 Shop	Unit-1 Disposal Stores	Trip Sheet / Requisition Form	3000	100	30	BHEL	4	BHEL	4	Vendor to specify	Rate per Ton
Cut-bits	Unit-2 Shop	Unit-2 Stores	Trip Sheet / Requisition Form	300	50	15	BHEL		BHEL	_ami	Vendor to specify	Rate per Ton
FGs	Unit-2	Sites	Commercial clearance	175 to 3750 Km	3000		Vendor		Vendor	5	As per scope	Rate per KM

2 MANAGING STORES

	No of Shifts		Number	L	Documents to	Additional	Approx	Basis for
Activity	Working Days	Holidays	of stores	Type	be maintained	Documents	number of matl Codes	payment
Managing intermediate stores for components	2	1	2	Closed		Attest cards	200	
Managing intermediate stores for plates /angles/ channels	2	1	1.	Open	Receipt/Issue Ledger	NIL	50	Rate per month
Managing Intermediate Stores for Indirect material	2	1	2	Closed		NIL	200	

3 MANAGING SHIPPING BAYS

No of Bays	2
Area of each Bay	30 X 180
Total tons per annum	36000
Average inventory	500
Total number of EOT cranes to be manned	6
Additional Activities	Surface Cleaning, Painting, Crating
Basis for Payment	Rate per Ton of FGs received in to Shipping Bay

(B) ACTIVITY MATRIX FOR PPPU – BHEL THIRUMAYAM

1 MATERIAL MOVEMENT

							Loa	ding	Unlo	ading		-
Type of Matl	From	То	Trigger Document	Distance	Tons / Month	Trips / Month	Scope	Time (max) Hrs	Scope	Time (max) Hrs	ax) Vehicle	Basis for payment
Pipes/tubes/ Other direct material and all indirect material	Unit-1 Stores	PPPU Stores	Pick-Slip/ MIV/SIV	80 KM	2000) 	BHEL	4	Vendor		Vendor to specify	Rate per Ton
Input material to Shop	PPPU Stores	Shop	Reservation	150-200 m	2000	S	Vendor		BHEL	3	Vendor to specify	Rate per Ton
Scrap	Shop	Disposal Stores	Requisition Form	500 m	50	15	Vendor	Jenny D	Vendor		Vendor to specify	Rate per Ton
Cut-bits	Shop	Stores	Requisition Form	200 m	50	15	Vendor		Vendor	-	Vendor to specify	Rate per Ton
FGs	Unit-2	Sites	Commercial clearance	175 to 3750 Km	2000		Vendor		Vendor	-	As per Scope	Rate per Km

2 MANAGING STORES

Activity	No of Shifts		Number	(3)	Documents	Additional	Approx	Basis for	
	Working Days	Holidays	of stores	Type	to be maintained	Documents	number of matl Codes	payment	
Managing Open yard store	2	1	1	Open		Attest cards	200	Rate per	
Managing Closed store	2	1	1	Closed	Receipt/Iss ue Ledger	Attest 200		material	
Managing Disposal Yard	2	1	1	Open		NIL		into Store,	

3 MANAGING SHIPPING BAYS

No of Bays	1				
Area of each Bay	30 X 180				
Total tons per annum	20000				
Average inventory	500				
Total number of EOT cranes to be manned	3				
Additional Activities	Surface Cleaning, Painting, Crating				
Basis for Payment	Rate per Ton of FGs received into Shipping Bay				

ANNEXURE-III

Packing of Components - Do and Don't

Ref No.: LOG/CCC/12-13/1011E Dt.16.11.2012

1. Identification of products which are supplied from Unit-II and PPPU, Tirumayam premises:

The following are the List of Products under pressure parts category which are supplied from Unit-II and PPPU, Tirumayam premises:

- I. Headers
- II. Coils
- III. Panels
- IV. Burner Panels
- V. Loose tubes

1. Headers:

Headers are basically so far being transported without crating. They are various shapes and configurations. The following table gives the details of a typical set of headers for Utility and FBC & HRSG boilers . The table provides the space [$L \times W \times H$] and the weight of the headers :

HEADER DIMENSIONS FOR 270 MW:

Sl.No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	05-137	Front Wall Inlet Header	1175	705	16805	9900
02.	05-147	Rear Wall Inlet Header	1175	705	16805	9900
03.	05-155	Left and Right Side Water Wall Inlet Headers	1110	925	11920	7300
04.	05-175	Extended Side Wall Inlet Headers	485	535	3446	625
05.	05-227	Water Wall Rear hanger Outlet Header	490	601	15276	2900
06.	05-229	Water Wall Rear Screen Outlet Header	685	1069	15481	5325
07.	05-231	Water Wall Front Upper Outlet Header	685	762	15754	3750
08.	05-251	Right and Left Side Wall Outlet Header	635	640	14570	3425
09.	10-135	SH Horizontal Spaced Inlet Header	840	1100	15155	7200
10.	10-174	SH Vertical Spaced Inlet	630	830	16030	11100

		Header				
11.	10-178	SH Vertical Platen Inlet Header	720	910	15375	6900
12.	10-182	SH Rear Wall Inlet Header	550	935	14740	3800
13.	10-183	SH Side Wall Inlet Header	420	685	10032	3000
14.	10-184	SH Extended Side Wall Inlet Header	1050	420	2720	600
15.	10-185	SH Front Wall Inlet Header	825	940	14750	3700
16.	10-191	SH Radiant Roof Inlet Header	630	440	15660	2850
17.	10-235	SH Horizontal Spaced Outlet header	850	800	16275	8575
18.	10-274	SH Vertical Spaced Outlet Header	900	1370	16030	17400
19.	10-278	SH Vertical Platen Outlet Header	720	1050	14810	7850
20.	10-283	SH Back Pass Side Wall Outlet Header (Left & Right)	710	935	9800	2650
21.	10-284	SH Extended Side Wall Outlet Header (Left & Right)	500	600	2590	550
22.	10-291	SH Radiant Roof Outlet Header	545	705	15580	5600
23.	10-687	SH Rear Roof Junction Header	486	990	15860	3100
24.	19-701	Economiser Inlet Header	1080	1125	15700	5600
25.	19-702	Economiser Outlet Header	700	650	16040	4750
26.	19-753	Economiser Intermediate Header Rear	635	945	15115	2500
27.	19-763	Economiser Intermediate Header Front	635	945	15115	2500
28.	19-783	Economiser Intermediate Header Centre	635	945	15115	2500

HEADER DIMENSIONS FOR 500 MW:

Sl. No	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weigh t (Kg)
01.	05-139	Front Wall Inlet Header	1689	1570	21341	48350
02.	05-147	Rear Wall Inlet Header	1384	1712	21341	46550
03.	05-158	Left Side Water Wall Inlet Header	1384	1067	19100	39400
04.	05-159	Right Side Water Wall Inlet Header	1384	1067	19100	39400
05.	05-227	Water Wall Hanger Tube Outlet Header (F 20 L & F 20 R)	540	610	19700	2600

06.	05-229	Water Wall Rear Screen Tube Outlet Header (F 24)	360	987	11430	3925
07.	05-231	Front Water Wall Outlet Header (F 15)	320	870	20315	6350
08.	05-251	Side Water Wall Outlet Headers (F 29 L & F 29 R)	540	952	13370	4750
09.	10-135	SH Horizontal Spaced Inlet Header	682	610	19430	7150
10.	10-178	SH Vertical Platen Inlet Header – H11	970	1524	20261	17700
11.	10-182	SH Lower Rear Wall Inlet Header- H8	590	1070	18567	4350
12.	10-183	Back Pass Side Wall Inlet Header (Left & Right)	690	1175	14262	5750
13.	10-185	Back Pass Lower Front Wall Header (Left & Right)	967	1110	13300	8050
14.	10-191	SH Radiant Roof Header	500	640	20195	3050
15.	10-195	SH Divisional Panellete Inlet Header (Left & Right)	864	692	9595	6000
16.	10-218	SH BP Lower Side Rear Header	590	950	4895	1750
17.	10-235	Low Temp. SH Outlet Header	1805	1760	20157	14800
18.	10-278	SH Vertical Platen Outlet Header	965	2007	20319	32525
19.	10-283	Back Pass Lower Side Front Header (Left & Right)	720	859	8486	4625
20.	10-291	SH Radiant Roof Outlet Header	880	785	20319	5200
21.	10-295	SH Divisional Panellete Outlet Header-S 32 (L& R)	864	635	8900	6000
22.	10-315	SH Rear Intermediate Header (Left & Right)	852	920	9513	3200
23.	10-687	SH BP Upper Rear Junction Header – S19	538	740	20118	6625
24.	15-174	RH Vertical Platen Inlet Header	1130	1820	20290	12250
25.	15-177	RH Vertical Spaced Inlet Header	1060	1800	20254	19400
26.	15-278	RH Vertical Platen Outlet Headers	1130	1800	20254	14950
27.	15-279	RH Vertical Spaced Outlet Headers	770	1945	20196	15375
28.	19-701	Economiser Inlet Header	874	745	19519	7400
29.	19-702	Economiser Outlet Header	700	978	18530	5250

HEADER DIMENSIONS FOR 600 MW

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	05-137	Front Wall Inlet Header	1320	1570	22865	50725
02.	05-147	Rear Wall Inlet Header	1420	1712	22865	48900
03.	05-158	Left side Water Wall Inlet Header	1130	630	21135	42950
04.	05-159	Right side Water Wall Inlet Header	1130	630	21135	42950
05.	05-227	Water Wall Hanger Tube Outlet Header	540	610	11550	2775
06.	05-229	Water Wall Rear Screen Tube Outlet Header	550	1175	11750	3950
07.	05-231	Front Water Wall Outlet Header	305	975	21850	6900
08.	05-251	Side Water all Outlet Headers	390	835	13900	5000
09.	10-135	SH. Horizontal Spaced Inlet Header	690	610	20960	7800
10.	10-178	SH. Vertical Platen Inlet Header	1160	1525	21765	19900
11.	10-182	SH. Lower Rear Wall Inlet Header	600	1100	14780	5000
12.	10-183	Back Pass Side Wall Inlet Header (Left & Right)	730	1175	14600	5950
13.	10-185	Back Pass Lower Front Wall Header (Left & Right)	1125	1060	5535	9400
14.	10-191	SH. Radiant Roof Inlet Header	450	650	10900	3300
15.	10-195	SH. Divisional Panellete Inlet Header (Left & Right)	870	710	10435	8400
16.	10-218	SH. Back Pass Lower Side Rear Header	600	810	5660	2100
17.	10-235	LTSH Outlet Header	1805	1735	21600	18800
18.	10-278	SH. Vertical Platen Outlet Header	1160	2065	21730	36200
19.	10-283	Back Pass Lower Side Front Header (Left & Right)	680	1000	8030	4300
20.	10-291	SH. Radiant Roof Outlet Header	500	800	10950	5600
21.	10-295	SH. Divisional Panellete Outlet Header (Left & Right)	870	685	9625	6600
22.	10-315	SH. Rear Intermediate Header (Left & Right)	930	920	10100	3400
23.	10-687	SH. Back Pass Upper Rear Junction Header	525	587	21700	6950
24.	15-174	RH. Front Inlet Header	1975	1780	21850	19600
25.	15-279	RH. Vertical Spaced Outlet Header	925	1950	21825	16000

26.	19-701	Economiser Inlet Header	925	795	10975	9500
27.	19-702	Economiser Outlet Header	710	1010	10000	6700

HEADER DIMENSIONS FOR 125 MW BOILERS

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	05-100	FBHE Evap.Inlet Header(FEH-1)	540	800	5592	2488
02.	05-137	Lower Front WW Inlet Header	600	850	7500	3350
03.	05-147	Comb.Rear WW Inlet Header	550	1400	7500	3268
04.	05-158	Comb.LSWW Inlet Header	650	540	11950	4680
05.	05-159	Comb.RSWW Inlet Header	650	540	11950	4680
06.	05-200	FBHE Evap.Outlet Header	540	800	5492	2506
07.	05-216	Front/Rear Outlet Header	1000	1100	7740	4566
08.	05-250	Comb.LSWW Outlet Header	600	1150	11940	3712
09.	05-251	Comb.RSWW Outlet Header	600	1150	11940	3712
10.	05-260	Comb.Outlet Ring Header	300	1004	4460	1740
11.	05-494	Downcomer Header	550	650	4959	1775
12.	05-495	Downcomer Header	800	930	4480	2766
13.	10-100	Hanger Tube Inlet Header	700	450	11362	3755
14.	10-121	Final Super Heater Inlet Header	920	550	11955	6610
15.	10-135	LTSH Inlet Header	755	550	11841	4362
16.	10-136	FBHE SH-I Inlet Header	700	540	5525	2285
17.	10-137	FBHE SH-II Inlet Header	900	710	5870	6443
18.	10-182	Rear Steam Cooled Wall Inlet Header	950	900	11500	3206
19.	10-183	Front Steam Cooled Wall Inlet Header	950	900	11500	3206
20.	10-184	Steam Cooled Wall Inlet Header (Left & Right)	600	600	5790	1508
21.	10-191	BackPass Gas Inlet Ring Header	273	854	7000	2040
22.	10-207	BackPass Upper Collection Header	500	323.9	6870	2280
23.	10-221	Final SH Outlet Header	508	1050	12060	13230
24.	10-235	LTSH Outlet Header	780	500	11935	3990
25.	10-236	FBHE SH-I Outlet Header	850	750	5770	6350
26.	10-237	FBHE SH-II Outlet Header	850	750	5870	6460
27.	10-284	Steam Cooled wall Outlet	635	945	15115	2500

		Header(Left & Right)				
28.	19-783	Economiser Intermediate Header Centre	450	600	7780	1820
29.	10-286	Front and Rear Steam Cooled Wall Outlet Header	350	640	12030	2889
30.	10-819	Drum Outlet Header	650	550	8710	3190
31.	19-701	ECO Inlet Header	690	450	10810	2620
32.	19-702	ECO Outlet Header	650	500	11760	2460
33.	19-703	Ash Cooler outlet Header	350	550	2125	140
34.	19-708	Ash Cooler Intlet Header	350	550	2125	140

HEADER DIMENSIONS FOR 250 MW CFBC BOILERS

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	05-037	Comb.Middle Wall Front Inlet Header	1100	450	11710	3180
02.	05-047	Comb.Middle Wall Rear Header	1100	450	11710	3180
03.	05-116	Comb.Middle wall Outlet Header	1300	720	13800	12210
04.	05-134	Comb.Front Left side Transition Inlet Header	1050	1300	7880	2610
05.	05-137	Comb.FSWW Inlet Header	500	750	11710	2750
06.	05-144	Comb.Front Right side Transition Inlet Header	1050	1300	7880	2610
07.	05-147	Comb.Rear WW Inlet Header	500	750	11710	2750
08.	05-153	Comb.Rear Left side Transition Inlet Header	1050	1300	7880	2610
09.	05-154	Comb.Left Wall Inlet Header	500	870	6184	1220
10.	05-155	Comb.Right side Wall Inlet Header	500	870	6184	1220
11.	05-158	Comb.LSWW Inlet Header	450	540	17217	3020
12.	05-159	Comb.RSWW Inlet Header	450	540	17217	3020
13.	05-163	Comb.Rear Right side Transition Inlet Header	1050	1300	7880	2610
14.	05-216	Comb.Rear Wall Outlet Header	500	500	12240	5050
15.	05-250	Comb.LSWW Outlet Header	700	540	16644	3480
16.	05-251	Comb.RSWW Outlet Header	700	540	16644	3480
17.	05-468	Downcomer Headers	650	550	3458	2060
18.	10-121 TO	FBHE Inlet Headers	1050	650	4000	2000

	10-124					
19.	10-182	Back pass Right and Left side SCW Inlet Headers	900	750	15600	3750
20.	10-183	Back pass Front SCW Inlet Header	620	640	13100	2930
21.	10-184	Back pass Rear SCW Inlet Header	620	640	13100	2930
22.	10-284	Back pass Front SCW Outlet Header	800	1130	12500	3350
23.	10-285	Back pass Rear SCW Outlet header	800	1130	12500	3350
24.	10-286	Back pass Roof Outlet Header	850	600	15750	6670

HEADER DIMENSIONS FOR HRSG Fr.5

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	HL-201 & HL202	Feed Header	480	250	2950	245
02.	19-101 & 19-102	WPH Inlet and Outlet line	2730	300	4595	280
03.	19-850	Eco. Feed Header	4300	300	5850	200

HEADER DIMENSIONS FOR HRSG Fr.6

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	HL-201 & HL202	Feed Header	480	350	3500	790
02.	19-101 & 19-102	WPH Inlet and Outlet line	127	250	5911	320
03.	19-850	Eco. Feed Header	1600	250	6000	300

HEADER DIMENSIONS FOR HRSG Fr.9

Sl. No.	PGMA	Description	Width (mm)	Height (mm)	Length (mm)	Weight (Kg)
01.	HL-201	Feed Header	620	505	5200	2720
02.	19-101 & 19-102	WPH Inlet and Outlet line	420	350	10630	1050
03.	19-850	Eco. Feed Header	1600	250	6000	300

The headers can be classified based on the stubs:

- a. Headers with Short stub [Straight or Bent]
- b. Headers with Long Bent stubs

Based on the Length of the header and also on the weight the Type of Vehicle to be used is decided. The guide lines for the same are as following:

- 1. Length up to 13.5 m weight up to 33 T: 40 ft trailer and Hydraulic axles beyond 33T
- 2. Length up to 22 m weight up to 31 T: 70 ft trailer and Hydraulic axles beyond 31T

Crating Methodology:

Headers with Short stub: - Wooden blocks with clamping arrangements as per enclosed sketch are to be used to take care of site requirement for storage.

Headers with Long Stub: - Steel crating for each header has to be made.

DOs & Don'ts for Header Transportation:

- a. Ensure that the Header is crated as per the dimensions, weight and Configuration.
- b. Ensure that the Crating envisaged for the Long Stub Headers are as per the Drawing / Sketch.
- c. Ensure that the Wooden Blocks are properly fastened to the Header body.
- d. Ensure that the wooden blocks are positioned at the locations as shown in the drawing / Sketch.
- e. Ensure that the NO items of Non Pressure Parts like Structural beams, Duct Sheets or Pipes are put over the header. DO NOT Club the Header with non pressure parts especially the headers which do not have the Steel Crating.
- f. In case of multiple loading of headers one over the other , follow the recommended Crating Arrangement Guide Lines .

Few Dos & DON'Ts through SNAP SHOTS of REAL Occurrences

Provide proper supports at a distance of every 3 meters to avoid bow and lateral movement.

Incorrect way



Header Provided without Proper Supports



Long Reheater Header Supported only on Two Tees



Long Header with Overhang and tilted to 45 Deg

✓ Correct method





Headers properly supported with wooden V blocks at 3 meters interval.

<u>Overhanging:</u> Components must be covered within the Trailers area and should not be projected outside of the Trailers. Overhanging of the components not only causes fatigue damage and bending of the components but also, causes damages to other road users.

*****Incorrect Method



Nearly 40 % of the Header Unsupported: As received from a Vendor. It results in bow and causes injuries to other road users. Also the Header will surely get Damaged before it reaches its Destination

Do not use Chain / Sling Directly on pressure parts:

*Incorrect way: Damages the product



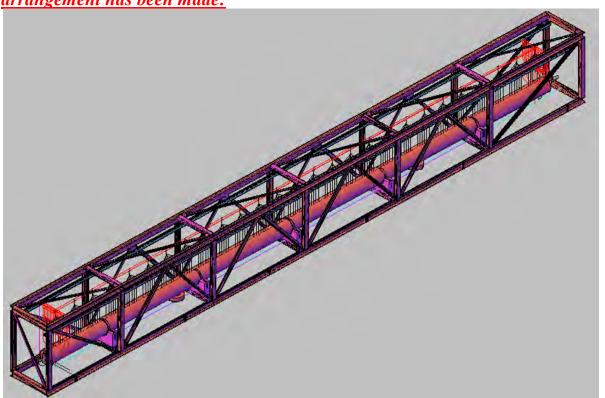
Header Stubs damaged during transportation due to use of chain/sling.

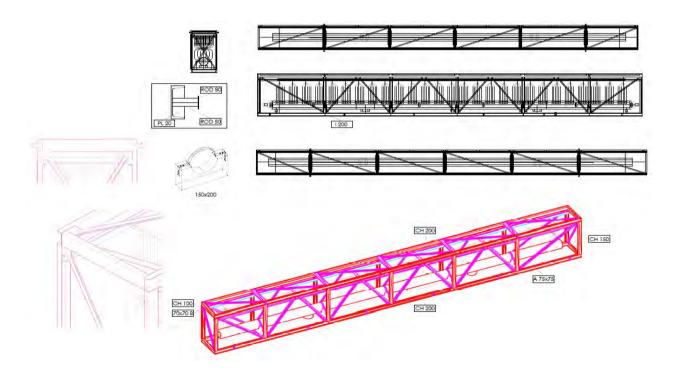




Potential Tube Cutters . To be avoided

<u>Based on the above observations and site feedbacks, a comprehensive crating arrangement has been made:</u>





This arrangement will be applicable for all the long stub headers as it will protect the stubs from any potential damages.

2. Crating of Coils:

Basically, the coils are classified into the following types based on disposition and construction:-

- a) Based on Disposition:
 - i) Horizontal Coils.
 - ii) Vertical Pendent Coils.

b) Based on Construction:

- i) Platen Coils.
- ii) Spaced Coils.

The following are the coil classification Matrix for 150/210/250/270/500/600/660/700 & 800 MW designs based on the above.

A. 150 MW:

Sl.No.	Item Description	PG-MA	Dimensions		ons
			Length	Width	Height
01.	SH Vertical Platen Coils	11-278	12508	1280	59.83
02.	SH Vertical Spaced Coils	11-274	9211	1335	56.5
03.	LTSH Coils Upper Spaced	11-236	6842	2880	179.5
04.	LTSH Coils Lower Spaced	11-237	6842	3209	179.5
05.	RH Front Vertical Spaced Coils	16-275	11592	1817	206
06.	RH Rear Vertical Spaced Coils	16-277	10218	2280	108
07.	Economiser Upper Spaced Assemblies	19-114	6862	3205	123
08.	Economiser Lower Spaced Coils	19-124	6862	3150	139

B. 250 MW:

Sl.No.	Item Description	PG-MA	Dimensions		ons
			Length	Width	Height
01.	SH Vertical Platen Coils	11-278	14763	1837	63
02.	SH Vertical Spaced Coils	11-274	11672	1596	60
03.	LTSH Coils Upper Spaced	11-236	8493	2623	170
04.	LTSH Coils Inter Spaced	11-237	8493	2923	170
05.	LTSH Coil Lower Spaced	11-238	8493	3018	170
06.	RH Front Vertical Spaced Coils	16-275	13783	2129	178
07.	RH Rear Vertical Spaced Coils	16-277	12127	2366	178
08.	Economiser Upper Spaced Assemblies	19-114	8513	3017	140
09.	Economiser Lower Spaced Coils	19-124	8513	3255	140

C. 270 MW:

Sl.No.	Item Description	PG-MA	Dimensions		ons
			Length	Width	Height
01.	SH Vertical Platen Coils	11-278	14763	1713	60
02.	SH Vertical Spaced Coils	11-274	11672	1594	60
03.	LTSH Coils Upper Spaced	11-236	9255	2208	170
04.	LTSH Coils Lower Spaced	11-237	9255	2558	170
05.	RH Front Vertical Spaced Coils	16-275	13774	2111	170
06.	RH Rear Vertical Spaced Coils	16-277	12127	2366	170
07.	Economiser Upper Spaced Assemblies	19-114	9275	2827	140
08.	Economiser Lower Spaced Coils	19-124	9275	2827	140

D. 500MW

Sl.No.	Item Description	PG-MA	Dimensions			
	•		Length	Width	Height	
01.	SH Divisional Panellete Platen Coils	11-095	18745	2061	64	
	vertical	11-395				
02.	SH Platen Vertical Coils	11-078	20626	1990	76	
		11-378				
03.	RH Vertical Platen Assemblies 1 st Stage	16-079	21880	2411	76	
	with Bifurcate	16-379				
04.	RH Vertical Spaced Coils 2 nd Stage	16-077	19261	3044	76	
	with Bifurcate	16-377				
05.	RH Vertical Platen Coils Front	16-079	18680	2119	127	
		16-379				
06.	RH Vertical Spaced Coils Rear	16-077	16373	2678	76	
	-	16-377				
07.	LTSH Spaced Horizontal Coils Upper	11-036	13466	2091	208	
		11-336				
08.	LTSH Spaced Horizontal Coils Lower	11-038	13466	2975	208	
	-	11-338				
09.	Economizer Spaced Horizontal Coils Upper	19-814	13462	3350	150	
		19-914				
10.	Economizer Spaced Horizontal Coils Inter	19-884	13462	3350	150	
	-	19-984				
11.	Economizer Spaced Horizontal Coils Lower	19-824	13462	2649	150	
	-	19-924				

E. 600MW

Sl.No.	Item Description	PG-MA	Dimensions		
	-		Length	Width	Height
01.	SH Divisional Panellete Platen Coils	11-095	18746	2270	64
	vertical	11-395			
02.	SH Platen Vertical Coils	11-078	20627	2352	76
		11-378			
03.	RH Vertical Platen Assemblies 1 st Stage	16-079	21179	2667	76
	with Bifurcate	16-379			
04.	RH Vertical Spaced Coils 2 nd Stage With	16-077	17724	3305	76
	bifurcate	16-377			
05.	RH Vertical Platen Coils Front	16-079	19464	2974	127
		16-379			
06.	RH Vertical Spaced Coils Rear	16-077	15929	3243	66
		16-377			
07.	LTSH Spaced Horizontal Coils Upper	11-036	13771	2331	204
		11-336			
08.	LTSH Spaced Horizontal Coils Inter	11-037	13771	2954	204
		11-337			
09.	LTSH Spaced Horizontal Coils Lower	11-038	13771	2960	204
		11-338			
10.	Economizer Spaced Horizontal Coils Upper	19-814	13767	2796	150
		19-914			
11.	Economizer Spaced Horizontal Coils Inter	19-884	13767	2994	150
		19-984			
12.	Economizer Spaced Horizontal Coils Lower	19-824	13767	3024	150
		19-924			

F. 660 MW – OTSC Designs (Barh)

Sl.No.	Item Description	PG-MA	Dimensions		
			Length	Width	Height
01.	SH Vertical Platen Coils	11-078	19630	2607	63
		11-378			
02.	RH Vertical Platen Coils	16-079	17496	1780	88
		16-379			
03.	RH Horizontal Spaced Coils LTRH Upper	16-235	14325	2316	121
04.	RH Horizontal Spaced Coils LTRH Inter	16-236	14325	3222	121
05.	RH Horizontal Spaced Coils LTRH Lower	16-238	14325	2316	121
06.	Economizer Spaced Horizontal Coils Upper	19-814	14325	3333	158
		19-914			
07.	Economizer Spaced Horizontal Coils Inter	19-884	14325	3339	158
	-	19-984			
08.	Economizer Spaced Horizontal Coils Lower	19-824	14325	3329	158
	-	19-924			
09.	SH Vertical Spaced Coils Front	11-074	16678	1392	57
10.	SH Vertical Spaced Coils Rear	11-374	17225	1392	57

G. 660 MW – OTSC Designs (Bara)

Sl.No.	Item Description	PG-MA		ions	
	-		Length	Width	Height
01.	SH Vertical Platen Coils	11-078	20277	2120	73
		11-378			
02.	RH Vertical Platen Coils	16-079	17524	2396	110
		16-379			
03.	RH Horizontal Spaced Coils LTRH Upper	16-235	14996	2932	120
04.	RH Horizontal Spaced Coils LTRH Inter	16-236	14996	3127	120
05.	RH Horizontal Spaced Coils LTRH Lower	16-238	14996	3180	120
	_		14996	1983	120
06.	Economizer Spaced Horizontal Coils Upper	19-814	14692	2940	185
	-	19-914			
07.	Economizer Spaced Horizontal Coils Inter	19-884	14692	2542	185
	-	19-984			
08.	Economizer Spaced Horizontal Coils Lower	19-824	14692	2414	185
	-	19-924			
09.	SH Vertical Spaced Coils Front	11-074	17463	3387	74
10.	SH Vertical Spaced Coils Rear	11-374	14939	1987	74

H. 800 MW – OTSC Designs

I.

Sl.No.	Item Description	PG-MA	Dimensions			
			Length	Width	n Height	
01.	SH Vertical Platen Coils	11-078	20104	3123	249	
		11-378				
02.	RH Vertical Platen Coils	16-079	17304	2645	88	
		16-379				
03.	RH Horizontal Spaced Coils LTRH Upper	16-235	16002	3226	140	
04.	RH Horizontal Spaced Coils LTRH Inter	16-237	15697	3350	140	
05.	RH Horizontal Spaced Coils LTRH Lower	16-237	15697	3350	140	
	Inter					
06.	RH Horizontal Spaced Coils LTRH Lower	16-238	15850	2161	140	

07.	Economizer Spaced Horizontal Coils Upper	19-814	15188	4152	185
		19-914			
08.	Economizer Spaced Horizontal Coils Lower	19-824	15188	3894	185
	-	19-924			
09.	SH Vertical Spaced Coils Front	11-374	13123	2546	145
10.	SH Vertical Spaced Coils Rear	11-074	18940	2617	145

J. 700 MW – OTSC Designs

Sl.No.	Item Description	PG-MA	Dimensions			
	_		Length	Width	Height	
01.	SH Vertical Platen Coils	11-078	21410	1845	57	
		11-378				
02.	RH Vertical Platen Coils	16-079	19331	1996	76	
		16-379				
03.	RH Horizontal Spaced Coils LTRH Upper	16-235	15637	3153	140	
04.	RH Horizontal Spaced Coils LTRH Upper	16-236	15637	3127	140	
	Inter					
05.	RH Horizontal Spaced Coils LTRH Inter	16-236	15637	2646	140	
06.	RH Horizontal Spaced Coils LTRH Lower	16-238	15637	3012	140	
07.	Economizer Spaced Horizontal Coils Upper	19-814	15637	2700	158	
		19-914				
08.	Economizer Spaced Horizontal Coils Inter	19-884	15637	3145	158	
		19-984				
09.	Economizer Spaced Horizontal Coils Lower	19-824	15637	3145	158	
		19-924				
10.	SH Vertical Spaced Coils Front	11-074	18392	3451	57	
11.	SH Vertical Spaced Coils Rear	11-374	19074	2225	57	

All coils are to be despatched only after crating.

The crating of coils is done based on the weight of the coil and on the dimensions of the coils. The crating is to be sturdy enough to be handled at site without the failure of bottom beams. The typical arrangement of crating based on the length of the coils is shown as below:

- i) Horizontal Coils Various Lengths
- ii) Vertical Pendent Coils Various lengths
- iii) Export job coil crating.

The following points are to be considered as Do's and Dont's in the transportation of coils:-

- 1) Ensure that the coils are crated as per the weight, dimensions and configuration.
- 2) Ensure that the crating is done as per the relevant applicable drawing.
- 3) Ensure that the wooden blocks are kept at all locations shown in the drawing so as to avoid rubbing of coil metal with crating steel.
- 4) Ensure that the coils are not packed down and above the crating.
- 5) Avoid the coil transportation with non-pressure part items of structures, ducts, etc.

<u>Few Snap Shots of DOs and DON'T s in Transportation of Coils :</u> <u>Coil Tubes without End caps.</u>



All Coil Tubes provided with End Caps.



Stencilling: Do not allow improper Stencilling. It gives bad impression on the workmanship of the company.



Improper Stencilling on Coils. It gives bad impression on the finish of the <u>job.</u>



Completely painted and neatly stencilled Coil Assemblies.



Over stacked Coil Assemblies.



Neatly stacked Coil Assemblies.

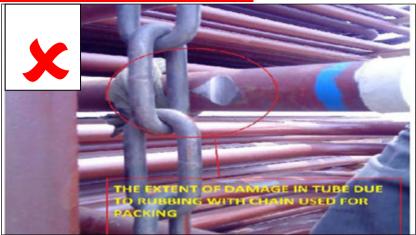


<u>Panels tied with chain. It will Damage the Tubes by the time it reaches the destination: Not Desired</u>



Good supporting and equal spacing between coils and tying with Nylon Belts.

Damages to jobs due to use of chains and slings:



Tube cut due to use of Chain. Avoid use of Chains as it cuts and Damages the Product



Tubes cut due to use of Chains/Slings. Avoid use of Chains and Slings

Crating: Crating helps in easy loading and unloading of the components, reducing the time for loading and unloading. Crating avoids the handling damage to the components since lifting is done by tying the component with crating.



<u>Component ready for transporting without Crating.It will result in damages of</u> the product while handling and Unloading at Site



All the components being transported by putting inside the properly fabricated Crating. It will Ensure the Safe Transportation of the Product to Project Sites

Avoiding Loading above Crating:

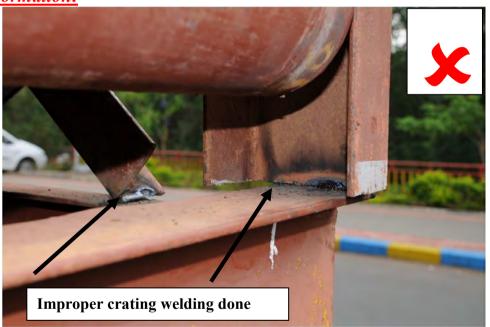


Coils loaded over the crating which may fall down during transportation.

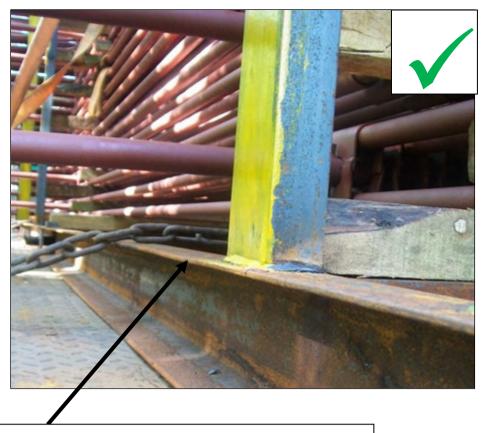


No component loaded over the crating.

Crating Formation:



Ensure all round fillet welding in crating as required.



Completely welded crating with about 5mm fillet size all round.

Completely welded crating with about 5mm fillet size all round.

Spacers:



Inadequate wooden spacing leading to bowing of Coils



Spacers provided in between each coil assembly.

Stoppers

Provide stopper to arrest the movement of the components which may cause damage to the components.



Coils shifted while transportation due to non-provision of Stoppers at the end of the crating (received at site).



Coils Shifting avoided due to welding of Proper Stopper plates



<u>Coils Loaded within trailer area. No overhanging available. The Coil reaches</u> <u>the destination without damage</u>



Crating not welded with the trailer.

Some Good Practices of Crating for Coils:





Wooden Stoppers Provided to avoid Rubbing of crating metal with Pressure Parts

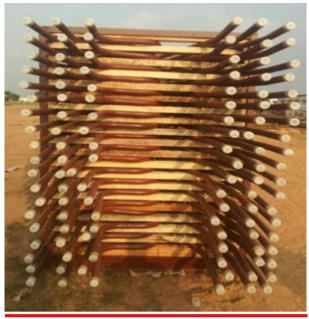
Some Good Practices of Crating for Coils:





Crating of Coils Done Properly with all the relevant items like bracing, Wooden planks and End Caps put properly

Some Good Practices of Crating for Coils

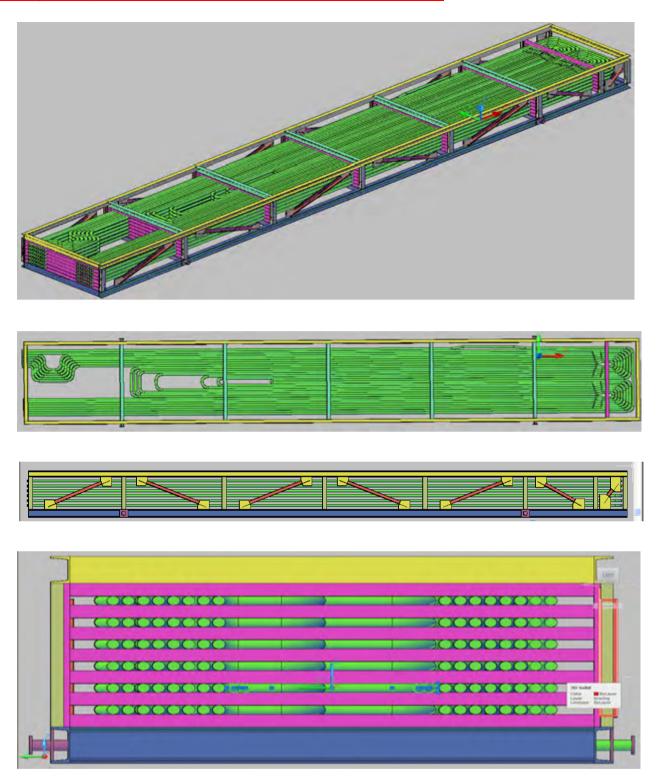


Wooden Spacers put Properly to avoid metal to metal Rubbing



<u>The Welding of Bracings are done properly .The Stencilling of Project Details are done in a Clear and legible manner</u>

Based on the above observations and site feedbacks, a comprehensive crating arrangement for 250 MW Platen SH Coils has been made:



This arrangement will be applicable for all the Coils and it will protect the coils from any potential damages.

3. Crating of Panels:

The following are the basic type of panels used in Boiler Pressure Parts:-

- 1) Furnace WW Panels (Front, Rear, Side, Hopper, Rear arch)
- 2) SH Back Pass Panels (Front, Side, Rear & Roof)
- 3) SH Radiant Roof Panels (In OTSC Boilers of 660 / 700 / 800 MW)
- 4) Extended side wall panels side and bottom

Basically, panels are sent in the dimensions to a maximum of 23.8 M length and 2.4 M in width. Except the hopper panels and Rear arch Panels, there is no special crating requirement for panels. However, the following precautions are must while transporting the panels of various lengths.

Do's and Dont's for the panel transportation:

- 1) Panels are to be properly packed on the correct trailers based on their lengths. For example -18M panels should not be put on a 40 feet trailer with an overhanging 3 or more metres. It will potentially damage the panels.
- 2) To take care of the openings of various heights from the surface of the panel tube, proper wooden blocks are to be used. It is better to avoid piling of wooden block over one another, as it may / will slip during transportation and the opening tubes will get surely damaged.
- 3) Do not pile Non-pressure Parts like Duct Plates, Structure Steel items over the panels so as to get the load advantage. It will damage the high cost pressure parts.
- 4) Avoid using chains and use the bands so as to avoid rubbing of steel rope and chain directly on to the pressure parts.
- 5) Similarly, do not load panels on Non-pressure Parts like Structures, Duct, etc. and also on loose pipes. It is also a potential source of damaging the product.

Some Snapshots of Once Through Supercritical Boiler Panel **Cratings:**



Crating for Spiral to vertical Wall Transition Panels [Lower]

Signature of the Tenderer with seal Date Place:



Crating for the Spiral Hopper Panels



Crating for Spiral Wall Panels



Crating for Spiral Wall Panels



Crating for Spiral Wall Panels



Crating for Spiral Wall Panels



Crating for Spiral Hopper Panels



Crating for Spiral Hopper Panels



Crating for Spiral Wall Panels

4. Burner Panels:

Sub Critical boilers (up to 600MW): No crating is envisaged Super critical units (660 MW and above): Crating arrangement is enclosed.

The following precautions are to be taken to ensure safe transport of the Burner Panels:-

Do's and Dont's of the Transport of Burner Panels:-

1) In any circumstances, the **OVER HANG** of Burner Panels **is not** allowed.

Following are some of the Snap shots of Crating Arrangement of Once Through Super Critical Boiler Spiral Wall Burner Panel



Crating for Spiral Wall SOFA Panels



Crating for Spiral Wall Burner Panels



Crating for Spiral Wall SOFA Panels

5. Loose tubes:

The Loose tubes are supplied in various sizes, dimensions and configurations. The following is to be considered for Transportation of these items:

- 1. For tubes less than 1500 mm in length, Boxes are to be used.
- 2. For tubes longer than 1500 mm, transportation is to be in Bundles.

The following points are to be considered as Do's and Dont's in the transportation of Loose Tubes:

- 1) Ensure that the Loose Tubes are crated as per the above guidelines.
- 2) Ensure that the Loose tubes transportation with non-pressure part items of structures, ducts, etc.

Some Snapshots of Incorrect Practices for Loose Tube Shipment:







ANNEXURE-IV

ELIGIBLITY CRITERIA FOR QUALIFICATION

Ref No.: LOG/CCC/12-13/1011E Dt.16.11.2012

The following points are the eligibility criteria to participate in this EOI. All the following criteria to be adequately substantiated invariably with documentary proof thereto. Non-compliance of this requirement shall be deemed fit to reject the EOI on scrutiny.

Clause	ELIGIBLITY CRITERIA	Applicant to Comment (Yes or No)	Page No. where documents enclosed
1.0	The Vendor/Service-Provider should be conversant with and handled integrated logistics solutions covering in-bound, intra and out-bound logistics including stores /ware- housing operations for a period of at least one year during 2005-2012 for a large manufacturing organisation having a turnover of Rs.200 Crores (Minimum) per annum during that year.		
1.1	The Vendor/Service-Provider shall enclose a certificate of satisfactory performance indicating period of work issued by his client"s/customer"s authorised signatory as an evidence of having met the requirements of clause 1.0. The certificate shall carry contact details of the issuing authority.		
2.0	The Vendor/Service-Provider shall possess the minimum fleet of vehicles as indicated in clause 2.1 a) to g). All the vehicles should be owned by the Vendor/Service provider. The lease agreement for any kind of vehicle will not be accepted.		
2.1	The minimum fleet to be possessed by Vendor/Service-Provider shall be as given below. a) 20 Feet Trailers: 20 numbers b) 40 Feet Trailers: 10 numbers c) 70 Feet Trailers: 10 numbers d) Taurus: 10 numbers e) Lorry: 10 numbers f) Mobile Crane with safe working load of 10 Tons (Tyre mounted capable of lifting and moving the load): 1 number g) 3 Tons Diesel Fork Lift: 1 number All the material made available to the Vendor/ Service-Provider has to be moved within the stipulated time frame, and for achieving this, if additional vehicles/equipments are required, the same shall be arranged by the Vendor/Service-Provider.		

Clause	ELIGIBLITY CRITERIA	Applicant to Comment (Yes or No)	Page No. where documents enclosed
2.2	The Vendor/Service-Provider shall enclose copy of RC Books and Valid Insurance Certificates for vehicles owned by him as a proof of having met the requirements of clause 2.1. The Vendor/Service-Provider shall ensure that the enclosed copies of RC Books and Valid Insurance Certificates are duly attested by the Notary Public with signature and official seal. The qualified Vendors / Service-Providers shall produce the originals of these documents for verification before finalisation of tender.		
3.0	The Vendor/Service-Provider shall be financially sound and should have made profits during each of the last three years (2008-09, 2009-10 and 2010-11). The Vendor/Service-Provider should have an annual turnover of Rupees 50 Crores minimum in each of the last three years (2008-09, 2009-10 and 2010-11).		
3.1	The Vendor/Service-Provider shall enclose copies of his audited financial statements for the last three years (2008-09, 2009-10 and 2010-11). as a proof of having met the requirements of clause 3.0		
3.2	The Vendor/Service-Provider shall also enclose the following documents:- a) IBA Certificate (for the Transportation business sector) b) Banker's Certificate c) Organisation chart of the company d) Copy of Company registration certificate issued by statutory authority (duly attested by Notary Public) e) Copy of Memorandum and Article of Association (duly attested by Notary Public)		

FOR OVERSEAS VENDORS

In case of overseas Vendors, the business information report incorporating the rating of the Company by the International Credit Rating Agencies viz., DUNS number of M/s. DUN & Bradstreet (D&B) along with the EOI.

Further it may be noted that, in case of award of Contact to any foreign Vendor, it will be on their Indian Office only and the vehicles to be deployed them for despatches shall be of Indian Registration only. All the operation of the vehicles shall be as per Motor Vehicle Act of India only.

ANNEXURE-V

PROCEDURE TO SUBMIT EOI

1 SUBMITTING THE EOI

1.1 EOI consists of the following documents and the same shall be duly signed & stamped by the bidder in all the pages and submitted in full in token of the acceptance of the same.

1.1.1	Scope of Work	-	Annexure-I
1.1.2	Activity Matrix	-	Annexure-II
1.1.3	Packing of components – Do and Don't	-	Annexure-III
1.1.4	Qualification Criteria	-	Annexure-IV
1.1.5	General Terms & Conditions	-	Annexure-V
1.1.6	List of on-going sites	_	Annexure-VI

1.2 Earnest Money Deposit (EMD)

1.2.1 The applicant shall submit EMD of Rs.2,00,000/- (Rupees Two Lakh Only) along with the EOI by way of Demand Draft drawn in favour of Bharat Heavy Electricals Limited, Trichy payable at Trichy

1.3 Notary public Attestation

1.3.1 The Xerox copies of all the supporting documents enclosed shall be attested by a **NOTARY PUBLIC.**

1.4 Documentation

1.4.1 All the pages of this EOI & supporting documents of the Eligibility Criteria shall be filed in the same serial as per the format/column of the "EOI". All the pages shall be serially numbered on the right hand side top corner.

All the above documents shall be submitted in a common sealed cover super scribing name of the bidder and "EOI FOR THIRD PARTY LOGISTICS Ref No. LOG/CCC/12-13/1011EOI dt: 16.11.2012.

EOI without relevant documents are liable to be rejected.

2 EOI DUE DATE

2.1 Last date/time for receipt of EOI

2.1.1 The completed EOI shall reach on or before **10:30 AM. on 17.12.2012**. It is in their own interest to ensure that the tenders reach in time. BHEL is not responsible for any postal delay. Tenders not submitted in the prescribed forms or incomplete tenders are liable to be rejected.

2.2 Last date/time for opening of EOI

2.2.1 Sealed covers so received will be opened at Bldg. No.61, 1st Floor, Stores Admin Block. (Near East Gate), in BHEL, Tiruchirapalli on the same day i.e., on **17.12.2012 at 10:35 AM.** in the presence of the applicants or their Authorised Representatives who may choose to witness the same.

Date : Signature of the Tenderer with seal

2.3 Witnessing the EOI opening

- 2.3.1 The representative of the applicant may choose to witness the EOI opening have to produce the Authorization Letter, as per the **enclosed proforma**, before opening of the EOI. The representatives without Authorization Letter in the prescribed format will not be allowed to participate in the tender. Please note that Authorization Letter should not be kept inside the offer cover and shall be carried by the witness in person.
- 2.3.2 Only one representative from one applicant will be allowed to participate in the tender opening.

3 SIGNING THE EOL

- 3.1 The EOI shall be signed by the Authorized Signatory Only. Authorised signatory shall be the person holding "power of attorney" on behalf of the firm/company/bidder-concerned authorised/empowered to act on behalf for the specific purpose
- 3.2 Authorized signatory should have Power of Autonomy issued by MD or Board of Directors or authorized person for this purpose for quoting tender and all procedures connected with, till finalization and execution of the Contract.
- 3.3 In case the applicant is a Partnership Firm under Partnership Act, the EOI shall be signed by all the Partners of the firm or by the Managing Partner who have Signature and Seal of the Applicant authorised to do so or by a person holding the Power of Attorney on behalf of the Partnership Firm.
- 3.4 A copy of the Partnership Deed and/or a copy of the Power of Attorney attested by a Public Notary shall accompany the tender.
- 3.5 BHEL will not be bound by any other Power of Attorney granted or the change in the composition of the firm made, subsequent to the execution of the contract agreement. They may however recognize such Power of Attorney or change in status after obtaining legal advice and the cost involved in that connection shall be chargeable to the applicant concerned.

4 GENERAL INSTRUCTION

- 4.1.1 The applicant shall fill in all the required particulars of the EOI documents and also sign on each and every page of the EOI documents (Scope of Work, Activity Matrix, Terms & Conditions etc.,) before submitting their EOI.
- 4.1.2 Should an applicant find discrepancies or omissions in the EOI documents or should there any doubt as to their meaning, he should at once address the authority inviting the EOI, for clarification well before the due date, so as to submit his EOI in time. (No extension of time shall be given for submission of the EOI on any account)
- 4.1.3 Canvassing in any form, in connection with the EOI is strictly prohibited and such EOI are bound to be rejected. All information furnished is taken to be authentic by the applicant for evaluation of EOI priorities. Should any information found to be incorrect subsequently, at any later time, the EOI / tender / Contract shall be rejected / terminated and the EMD / SD shall be forfeited
- 4.1.4 Should a Bidder's or a Contractor's or in the case of a firm or company of Contractors/any of its shareholder's or shareholder's relative is employed in BHEL, the authority inviting the tenders shall be informed in writing of this fact at the time of submission of the tender, failing which the tender may be disqualified, or if such fact subsequently comes to light, the Contract may be cancelled.

Date : Signature of the Tenderer with seal

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TERMS & CONDITIONS

1 GENERAL TERMS & CONDITIONS

1.1 **DEFINITIONS**

In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them, except where the context otherwise requires

- 1.1.1 The "Contract" means, the documents forming the tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to contract. All these documents as applicable taken together shall be deemed to form one contract and shall be complementary to one another.
- 1.1.2 The "Vendor/Service-Provider" means, the individual or Firm or Company whether incorporated or not, undertaking the work and shall include the successors of the firm or company and the permitted assigns of such individual or firm or Company.
- 1.1.3 BHARAT HEAVY ELECTRICALS LIMITED" (herein after referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or any other Executive of the said Company authorised to invite tenders and enter into contract for works on behalf of the Company.
- 1.1.4 The "work" means, the work described in the tender documents including all notified or additional items of works and obligations to be carried out as required for the performance of contract.
- 1.1.5 The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the Vendor/Service-Provider for the execution of the work during the currency of the contract.
- 1.1.6 A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.
- 1.1.7 A "day" means, the day of 24 hours (TWENTY FOUR) irrespective of the number of hours worked or not worked in that day.
- 1.1.8 A "working day" means, any day other than that prescribed by the NEGOTIABLE INSTRUMENTS ACT as being a Holiday, and consists of the number of hours of labour as commonly recognised by good employers in the trade in the district where the work is carried out or as laid down in the BHEL regulations.

1.2 GENERAL INSTRUCTIONS

- 1.2.1 The Rate quoted shall be FIRM throughout the currency of the Contract. It shall not be subject to any increase under whatsoever may be the reasons thereof.
- 1.2.2 The Vendor/Service-Provider has to quote the rate on the rate basis called for in the scope. Service tax will be paid extra as applicable.
- 1.2.3 Tender Offer submitted should be in sealed cover, super scribed with tender number and addressed to Senior Manager/Logistics/CCC, BHEL Tiruchirappalli-620 014. Tenders will be received up to 10.30 AM as per the schedule of tender notice and will be opened in the presence of those who may choose to attend the tender opening. Unless the representative attending the tender opening is duly authorised in writing by the participating Vendor/Service-Provider, he will not be allowed to attend the tender opening.

Date : Signature of the Tenderer with seal

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- 1.2.4 Tender Offer submitted by post should be sent as "Registered Post with Acknowledgement Due". These should be posted with due allowance for any postal delay. Tender Offers received after due date and time of opening are liable to be rejected. Delayed offer, late offer or any such offer received after the tender opening time and date will not be received by BHEL and under no circumstances it will be accepted.
- 1.2.5 Rate for each activity of work should be quoted in rupees and paise only. In case of any difference in rate quoted in figures and words, the one quoted in words shall be taken as the tendered/offered rate.
- 1.2.6 **The quoted rate should be exclusive of Service Tax** and inclusive of any other taxes and duties levied or to be levied both by Central and State Government Statutory / Regulatory Authorities from time to time. BHEL will not entertain any claim whatsoever in this regard.
- 1.2.7 Vendor/Service-Provider has to ensure that all statutory payments as per Minimum Wages Act etc. are considered thoroughly while quoting. No other claim in respect of payment to workmen/personnel will be entertained at a later stage. It will be the responsibility of Vendor/Service-Provider to comply with statutory payments to workmen/personnel.
- 1.2.8 The successful Vendor/Service-Provider will have to render all necessary cooperation to BHEL and other agencies working in the same area, to ensure the smooth functioning of logistics operation.
- 1.2.9 The Vendor/Service-Provider's responsibility under this contract shall come in to effect from the date of receipt of the contract or acceptance of the contract.
- 1.2.10 If after opening the tender the Vendor/Service-Provider revokes his tender or increases his earlier quoted rate or after acceptance of contract does not commence the work in accordance with the instructions of BHEL, the earnest money deposited by him, will be forfeited and acceptance of his tender withdrawn.
- 1.2.11 The earnest money deposit prescribed for this activity based work should be submitted along with the offer and the demand draft should be drawn in favor of BHEL, Trichy-14.
- 1.2.12 Canvassing in any form in connection with the tender is strictly prohibited and the tender submitted by the Vendor/Service-Provider who resorts to canvassing will be liable to rejection.
- 1.2.13 The quantum of work indicated in the scope is only approximate and is liable for variation without entitling the Vendor/Service-Provider any compensation. During the execution of the contract some new scope of work may get added/ deleted. Such alterations in scope shall be limited to 20%.
- 1.2.14 In quoting their rates on activity basis, the Vendors/Service-Providers are advised to take into account all factors including any fluctuation in the market rates etc. No claim will be entertained on this account after acceptance of the tender during the currency of contract.
- 1.2.15 The rate quoted in the tender shall remain valid for a period of three months from the date of opening the tenders by which time the award of contract will be decided. Once the contract is awarded, the rate quoted by the successful Vendor/Service-Provider as accepted shall be valid till billing for the entire work is completed and final bill is paid.
- 1.2.16 The expenses for completing and stamping the agreement shall be borne by the Vendor/Service-Provider.
- 1.2.17 The instructions provided and terms and conditions outlined in this document shall be deemed to form an integral part of the contract to be entered into with the successful Vendor/Service-Provider.

Date : Signature of the Tenderer with seal

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2 WORK RELATED CONDITIONS

2.1 WORK CONDITIONS

- 2.1.1 The Vendor/Service-Provider should use his own mobile Cranes, slings, jacks, lifting tackles and any other equipment required for this job. However, BHEL may provide special kind of wire ropes, slings, hooks depending on the nature of handling if necessary.
- 2.1.2 Category wise, size wise segregation and accounting of the materials to be done by the Vendor/Service-Provider will be in the form of number of pieces, length, size and weight.
- 2.1.3 Compliance with statutory obligations as well as any other requirements/provisions with respect to the Vendor/Service-Provider's manpower, equipment including insurance, medical facility, minimum wages, safety requirements, accommodations etc., to be the responsibility of the Vendor/Service-Provider.
- 2.1.4 Vendor/Service-Provider shall deploy his resources strictly in accordance with the outcome of regular interaction with BHEL during the course of execution of contract.
- 2.1.5 Vendor/Service-Provider shall employ well trained supervisors for organizing and executing material handling functions like loading, unloading & stacking (size, category wise in specified areas), verification, preservation as per the guidelines of BHEL and reporting shortages/damages immediately to BHEL as and when noticed.
- 2.1.6 Orders given to the Vendor's/Service-Provider's supervisor shall be considered to have the same force as if they have been given to the Vendor/Service-Provider himself.
- 2.1.7 The Vendor/Service-Provider or his supervisor shall attend when required without making any claim for doing so, the offices of BHEL for receiving instructions.
- 2.1.8 The BHEL shall have full powers and without assigning any reason require the Vendor/Service-Provider to immediately cease to employ in connection with this contract any agent, servant or employee, where continued employment is undesirable in BHEL's opinion. The Vendor/Service-Provider shall not be allowed any compensation on this account.
- 2.1.9 The Vendor/Service-Provider shall furnish a list of tools, plants, vehicles, mobile cranes which he proposes to deploy at his cost for this work.
- 2.1.10 Vendor/Service-Provider shall mobilise additional mobile cranes/vehicles if required without fail and lapse of time and ensure work completion to BHEL"s satisfaction.
- 2.1.11 The Vendor/Service-Provider at his cost shall arrange Skilled/Qualified manpower and Consumables/Spare-parts, for operating and maintaining, Vehicles/ Equipments and other resources deployed by him. Preventive and routine maintenance and change of tools and plants are also to be arranged by the Vendor/Service-Provider at his cost without any delay.
- 2.1.12 Any breakdown of Mobile crane, Vehicle and any other handling/lifting equipments, tools and plants deployed by the Vendor/Service-Provider must be set right within 24 hours. Vendor/Service-Provider cannot attribute such break down for delay in handling activities.

2.1.13 If the Vendor/Service-Provider fails to set right his handling equipments and tools and plants in time, as stated above, BHEL shall have the right to hire these equipments from other sources and give it to the Vendor/Service-Provider if found necessary. Any expenditure incurred in this regard will be recovered from the Vendor/Service-Provider's running bills.

2.2 PROGRESS OF WORK

- 2.2.1 Supervising safe conduct of work as per the contract shall be the responsibility of Vendor/Service-Provider. The Vendor/Service-Provider shall employ sufficient Executives/Supervisors for managing resources and monitoring progress of work.
- 2.2.2 During the course of material handling, if the progress is found unsatisfactory or the materials are not loaded/unloaded in time without any delay or in the opinion of BHEL, if it is found that the skilled workmen like riggers, operators, and helpers employed are not sufficient, BHEL will induct required additional manpower to improve the progress and recover all charges incurred on this account including all expenses together with BHEL overheads from the Vendor/Service-Provider's bills.
- 2.2.3 The Vendor/Service-Provider shall submit daily, weekly and monthly progress reports, manpower reports, material reports and other reports considered necessary by BHEL.
- 2.2.4 The Vendor/Service-Provider shall arrange for weekly progress review meetings with the Officials of BHEL at site during which actual progress during the week vis-à-vis scheduled program shall be discussed for action to be taken for achieving targets. The program for subsequent week shall also be presented by Vendor/Service-Provider for discussion. The Vendor/Service-Provider shall constantly update/revise his work program to meet the overall requirements of BHEL.

2.3 HOUSE KEEPING

- 2.3.1 The Vendor/Service-Provider is expected to carry out daily house keeping of work areas/yard through a check list prepared in consultation with BHEL.
- 2.3.2 The Vendor/Service-Provider shall adopt pollution prevention / reduce / control approach in all his site activities.
- 2.3.3 The Vendor/Service-Provider shall arrange for segregation / collection of scraps and dispose off to the identified place meant for scrap collection.
- 2.3.4 All the materials shall be stored with proper support above the ground level by the use of steel or wooden sleepers or wooden logs. However care should be taken that the height of the stacking shall not exceed 4 feet. Materials shall not be stacked in low lying areas where it is likely to get flooded during rain.
- 2.3.5 For stacking the materials above the ground level, wooden / concrete sleepers, wooden logs, concrete blocks and tarpaulins etc., wherever deemed necessary shall be given by BHEL. Stacking of the materials shall be done as per the instructions and to the satisfaction of BHEL officials. The materials shall be stacked in such a way that it should facilitate easy retrieval. In case any negligence or improper stacking is noticed, it shall be the responsibility of the Vendor/Service-Provider 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 Vendor/Service-Provider.

2.4 ADDITIONAL RESPONSIBILITIES

2.4.1 All activities described in the tender documents shall be conducted on a two shift basis (8AM-4:30PM-1AM or 6AM-2PM-10PM) during all week days (Monday to Saturday) and on a single shift basis (8AM-4:30PM or 6AM-2PM) on Sundays and Holidays, except otherwise explicitly

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mentioned in the scope of work. No work shall be carried out on National Holidays (Republic Day 26th of January, May Day 1st of May, Independence Day 15th of August, Gandhi Jayanthi 2nd of October).

- 2.4.2 Not with-standing the above, upon receiving written request from BHEL, the Vendor/Service-Provider shall organize and carry out work to meet contingencies during other time periods and days. The Vendor/Service-Provider shall not claim any additional payment except the one allowed in the contract, on account of this.
- 2.4.3 If the Vendor/Service-Provider or his workmen or employees shall break, deface, injure and destroy any part of a building, road, kerbs, enclosures, water pipes, fence cables, drains, electric or telephone posts or wires, trees or any other property of BHEL, the Vendor/Service-Provider shall make good the same at his own expenses.

2.5 WORK TO BE CARRIED OUT

The Contract shall include all labour, material, tool, plant, equipment and transport which may be required for the execution of the work. The Vendor/Service-Provider will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution of the work. No extra charges consequent on any misunderstanding in these respects or otherwise will be allowed.

2.6 NOTE TO WORK RATE SCHEDULE

- 2.6.1 The Vendor/Service-Provider shall quote the rate as per Annexure-1 (Work Rate Schedule) of Scope specification. Conditional offers are liable to be rejected. The scope of work and responsibility of the Vendor/Service-Provider as mentioned under all the clause etc., of the tender specifications shall be covered within the quoted rate.
- 2.6.2 The Vendors/Service-Providers should assess the various distances and site conditions by visiting site before submitting their offer.
- 2.6.3 Though the minimum fleet of vehicles / facilities to be owned to be mobilised according to the actual requirement of BHEL is <u>indicated</u> under qualification requirements, BHEL shall not guarantee the minimum load per vehicle and also the load for minimum number of vehicles at any point of time.

2.7 DEVIATIONS

The Vendor/Service-Provider shall not carry out any work not covered by schedule except in pursuance of the written instructions of BHEL. No such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.

2.8 OCTROI AND OTHER DUTIES

All charges on account of Octroi terminal or Sales Tax and or other Duties on materials obtained for the work shall be borne by the Vendor/Service-Provider.

2.9 PLANT AND EQUIPMENT

The Vendor/Service-Provider shall at his own expense, supply all tools, plant and equipment (Herein after referred to as T&P) required for the execution of the contract.

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2.10 ASSIGNMENT OF TRANSFER OF CONTRACT

The Vendor/Service-Provider shall not without the prior written approval of the BHEL, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons. No sum of money which may become payable under the contract shall be payable to any person, other than the Vendor/Service-Provider unless the prior written approval of the BHEL to the assignment or transfer of such money is given.

2.11 SUB-CONTRACTING/ Outsourcing

The Vendor/Service-Provider shall not sub-let any portion of the contract without the prior written approval of the BHEL.

2.12 COMPLIANCE TO REGULATIONS AND BY- LAWS

The Vendor/Service-Provider shall confirm to the provisions of any statute relating to the work and regulations and Bye-Laws of any local authority. The Vendor/Service-Provider shall be bound to give all notices required by statute regulations or By-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

2.13 PERIOD OF CONTRACT

The period of Contract shall be for two years from the date of awarding / commencement of Work. This period is extendable for such further period on same rates, terms and conditions as may be mutually agreed upon.

2.14 PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED FOR VARIOUS TRADES

	PPE Recommended
Arc welder	Leather gloves
	Leather apron
	Spectacle goggles
	Hand shield
	Filter lens 11-14
	Leather leg guard
	Safety boots slip in type
<u>Painte</u> r	PVC gloves
	Light fume respirator
	Safety shoes
	Barrier cream
	Spectacle goggles
Fitter / General	Leather gloves
	Safety shoes
	Spectacle goggles
Rigger	Leather gloves
	Safety helmet
	Safety shoes
	Spectacle goggles

2.15 AMENDMENTS TO STATUTES:

During the course of executing the contract, amendments to various statutes may come into force. The Vendor/Service-Provider shall comply with all such amendments to Statutes. BHEL shall not make any additional payments to Vendor/Service-Provider on account of this.

2.16 ARBITRATION:

All disputes between the parties to the contract, arising out-of or relating to the contract, other than those for which the decision of the BHEL or any other person is by the contract expressed to be final and conclusive shall after written notice by either party to the contract to the other party be referred to the sole Arbitration of GENERAL MANAGER of BHEL or other Officers of BHEL appointed as Arbitrator by the GENERAL MANAGER of BHEL in his sole discretion.

Unless the parties otherwise agree, such reference shall not take place until after the completion, alleged completion or abandonment of the work of the determination of the contract.

The venue of Arbitration shall be such a place or places as may be fixed by the Arbitrator in his sole discretion. The award of the Arbitrator shall be final, conclusive and binding on both parties to the contract.

2.17 DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO WORKMEN

The Vendor/Service-Provider shall at his own expense reinstate and make good to the satisfaction of BHEL and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the Vendor/Service-Provider shall indemnify, the BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL where BHEL is a private person, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise.

2.18 LAWS GOVERNING THE CONTRACT: The contract shall be governed by the Indian Laws in force from time to time.

2.19 ENTRY, EXIT OF VEHICLES AND EQUIPMENTS

- a) The Vendor/Service-Provider shall obtain from BHEL a Collective / Gang pass for his Vehicles /Equipments with crew.
- b) After completion of work, each day, the Vendor/Service-Provide shall ensure that all his Vehicles /Equipments with crew exit BHEL Gate.
- c) The above requirements apply only for those Vehicles /Equipments that are deployed by Vendor/Service-Provider on a permanent basis during contract.
- d) For other Vehicles entry and exit shall be regulated by BHEL on a one to one basis.

2.20 INTERPRETATION OF TERMS AND AUTHORITY

What is not either covered explicitly or implied in the Scope, Terms & Conditions and other tender documents, BHEL's declaration in that context shall be final and binding on both parties to the contract.

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2.21 TRANSIT TIME AND PENALTY FOR DELAYED DELIVERY

- 2.21.1 BHEL attaches great importance to timely delivery of consignments and hence delivery should be affected without any delay. Penalties for delayed deliveries of consignments shall be levied as under. Penalty shall be levied after allowing the grace period.
- 2.21.2 Date of dispatch of consignments from the loading point and the date of reporting of vehicle at the unloading point will be excluded from the transit time.
- 2.21.3 In case the due date of delivery falls on Sunday/Public holiday, next working day will be treated as due date of delivery.
- 2.21.4 Transit Time for Full Loads

LCV : 330KMs per Day
Lorry / HCV : 300KMs per Day
Taurus : 300KMs per Day
40 Feet Trailer : 200KMs per Day
70 Feet Trailer : 120KMs per Day
Low Bed Trailer : 100KMs per Day

2.21.5 Transit Time for Part Loads / Smalls

 0 to 500KMs
 :4 Days

 501 to 1000KMs
 :8 Days

 1001 to 1500KMs
 :12 Days

 1501 to 2000Kms
 :15 Days

 2001 to 2500KMs
 :18 Days

 Above 2500 KMs
 :22 Days

2.21.6 Grace Period

Up to 1000KMs : 1 Day 1001 to 2000KMs : 2 Day Above 2000KMs : 3 Days

- 2.21.7 For Hill Region, additional 3 days time will be allowed for transit over the grace time mentioned above.
- 2.21.8 Penalty for Full Loads: 1 % of freight per Day subject to maximum of 50%
- 2.21.9 Penalty for Part Loads / Smalls: 2 % of freight per Week subject to maximum of 50%
- 2.21.10 Waiver of Penalty for delayed delivery
- 2.21.10.1 Wherever there is a late delivery, penalty will be levied. However in case of exceptional situations BHEL Official not less than AGM shall waive off the penalty on a "case to case" basis based on the representation received from the Vendor/Service-Provider after verifying the proof of major breakdown beyond the purview of the Vendor/Service-Provider.
- 2.21.10.2 Force majeure condition like cyclone, washout of roads, bridges, civil commotion and other aspects of the clause shall apply. Mechanical failure of the vehicle is not considered as force majeure.

2.22 TRANSHIPMENT AND PENALTY

- 2.22.1 BHEL expect a full load / certified full load consignments to be transported in the same vehicles without transhipment en route.
- 2.22.2 However, for HCV/Lorry categories, one transhipment is allowed en-route.
- 2.22.3 For other categories of vehicles, if transhipment is inevitable en-route, the Vendor should inform BHEL in advance and obtain prior permission from BHEL Executive, not below the rank of SR.MANAGER. Authorization permitting transhipment shall be attached along with the freight bill for payment. The transhipment shall be done in authorized transhipment centres only by deploying crane of suitable capacity and people with technical expertise.
- 2.22.4 If consignments are transhipped without prior permission a penalty of 10 % of the freight amount involved, shall be levied.

2.23 ROUTE AND DISTANCE

2.23.1 ROUTE

- 2.23.1.1 All consignments should be transported through the shortest route established / declared by BHEL and freight payment will be restricted to the same.
- 2.23.1.2 Where adoption of longer route becomes necessary for avoiding disturbed / riots prone or flood affected areas, the same shall be determined with reference to the areas to be passed through and weight and dimension of the consignment on case to case basis and such routes will be fixed by BHEL and authorized. The Vendor/Service-Provider, in such cases will furnish documentary evidence like Octroi gate passes, special road permit, repair and maintenance bills en route if any, Bills for Diesel filled etc., along with his bills establishing the fact that he has used the longer route, so authorized.

2.23.2 DISTANCE

- 2.23.2.1 The distance between two places for freight payment will be determined by the shortest route arrived at with reference to Road Map of INDIA published by SURVEY OF INDIA and Motoring Guide (latest edition).
- 2.23.2.2 BHEL reserves the right to update / alter existing distances comparing Road MAP of India from time to time during the tenure of Contract.
- 2.23.2.3 Wherever the particular station is not exhibited in the SAP system of BHEL Trichy, the distance shall be arrived at by referring to documents in the order of priority specified below:
 - i) Route map of India prepared by the Survey of India.
 - ii) Maps.yahoo.com (website)
 - iii) Maps.google.com (website)

2.24 LOADING AND UNLOADING

- a) Loading and unloading responsibilities will lie on BHEL or Vendor/Service-Provider depending on the activity being performed. The Vendor/Service-Provider shall go through the tender documents thoroughly and understand this requirement clearly.
- b) Normally no handling or transhipment is permitted en-route. However, loading and unloading at other intermediate places due to transhipment will be the responsibility of the Vendor/Service—Provider and no claim on this account will be entertained by BHEL.
- c) Handling and trans-shipment shall be done at the authorized transhipment centre with due permission of BHEL. Unauthorized Handling and transhipment will be viewed seriously and severely dealt with.

2.25 COVERING THE CONSIGNMENTS

2.25.1 The consignments, entrusted to the Vendor/Service-Provider shall be handled, covered with waterproof Tarpaulin (if required) to prevent the ingress of water and lashed without damage to consignments, transported and delivered carefully. For any loss or damage to the consignment, the Vendor/Service-Provider should fully compensate BHEL promptly. Frequent cases of such nature will be viewed seriously and BHEL reserve the right to terminate the Contract or take other appropriate steps.

2.26 INSURANCE COVERAGE AND CLAIM

2.26.1 Insurance

- 2.26.1.1 Transit insurance of the consignment under transportation by the Vendor/Service-Provider will be responsibility of BHEL/Consignee as the case may be and Vendor/Service-Provider shall ensure the insurance coverage and mark in the Lorry Way Bill. However, transporter will be responsible for any external damages as per Sec. 8 of Carriers Act, 1865.
- 2.26.1.2 The contract as entered into between BHEL and the Vendor/Service-Provider shall in no way nullify, reduce, mitigate or absolve the parties of any responsibility, obligation or liability that may devolve upon them under the Carriers Act, 1865 as amended up to date.
- 2.26.1.3 Position as above shall not absolve the transporter of his responsibility for safe and proper transportation of the goods to the proper destination or his liability to compensate for the damage/ shortage / loss in respect of the consignments transported by him.
- 2.26.1.4 The transporter's consignment note (LR) shall be acceptable to insurance company. In addition, the transporter shall get "LEGAL LIABILITY" from Insurance Company for Insurance Cover.

2.26.2 Damage / Loss

- 2.26.2.1 If any remark is made by the Consignee while delivering the consignment with respect to damage / shortage or loss i.e. total or partial, the transporter after delivery of the consignment shall inform BHEL within a week of delivery and the Vendor/Service-Provider should submit the Xerox copy of LR with covering letter to BHEL.
- 2.26.2.2 In case BHEL is not able to assess the extent of damage / shortage immediately, BHEL shall call for necessary documents such as Indemnity Bond from Vendor/Service-Provider and shall process the bills accordingly.

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2.26.3 Open Delivery

2.26.3.1 In case of any visible damage/ suspected damage in the consignment, the Vendor/Service-Provider should arrange delivery of the consignment on "OPEN DELIVERY" and the open delivery certificate should be issued along with the consignment, duly signed by both parties.

2.26.4 Accidents

- 2.26.4.1 All accidents at any point shall be reported to BHEL in writing through mail followed by hard copy. Failure to send communication will be viewed seriously resulting in suspension or termination of the Contract as deemed fit over and above the recovery of value of the consignment lost or damaged total or partial.
- 2.26.4.2 Further, any accident that occurs while the consignment is in transit shall also be brought to the notice of BHEL. Subsequently, the F.I.R. and Survey Report by authorized insurance agency (for the damage or loss of consignment en route) shall also be submitted. BHEL shall be informed in writing through Mail, Fax or Letter within 48 hours of incident or accident or loss or damage to enable BHEL to lodge and settle the claims with Underwriters.

2.26.5 56E. Return freight payment for transporting the damaged consignment back to Trichy after BHEL QC Clearance.

- 2.26.5.1 In case of transporting the damaged cargo (due to accident, mishap etc.) back to Trichy after insurance survey and BHEL QC clearance for returning such consignments to Trichy, the return freight, as per the applicable rate schedule of Contract will be paid to the Vendor/Service-Provider
- 2.26.5.2 In case of accident en-route, in addition to the return freight payable to bring back the materials to BHEL Trichy for repair / rectification, onward freight up to that accident place also will be paid to the Vendor/Service-Provider after receipt of an Indemnity Bond from them.
- 2.26.5.3 In case, the transporters fail to send communication in respect accident or damage or loss or act on the above lines and insurance claim is not made or compensation obtained by the authorized agency, the recovery will be effected for the value of damage or loss total or partial of the subject consignment. Suitable action including suspension, de-listing or termination of the Contract as deemed fit.

2.27 VEHICLE MONITORING

- 2.27.1 Wherever insisted by BHEL, the GPS instrument has to be provided by the Vendor/Service-Provider at his cost and risk in the vehicles. The Vendor/Service-Provider should ensure that the instrument for GPS is not detached from the vehicle till it reaches the destination. If it is found that the instrument for GPS is detached from the vehicle en route, a penalty of 2 % of the bill value shall be levied. Repeated detachment of GPS instrument, it will be viewed seriously.
- 2.27.2 In case, the System is not made available, BHEL reserves the right to fix the GPRS equipment and deduct the expenses from the freight bill of the Vendor/Service-Provider.

2.28 ESCORT FOR CONSIGNMENTS

Where BHEL intends to depute an escort for certain important consignments, he should be allowed to travel in the vehicle to the destination free of cost and communication should be sent on day-to-day basis till the consignment reaches destination.

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2.29 DIMENSION & WEIGHT RANGE OF VEHICLES

The Dimensions & Weight limits of the Vehicles are given below. If any one of the dimension of the consignment (Length or Width or Height) or weight is not falling within a particular category of vehicle, then in such case next higher category (fulfilling both the conditions of dimension / weight) of vehicle will be engaged for transportation

	ti ansportation						
SL	Category of Dimensions in "Meters"			Weight in "MTs"			
No	Vehicle	Length	Width	Height	weight in MITS		
1	HCV / Lorry	Up to 6.0	Up to 2	Up to 2 and + Allowable Ht.	Above 6.0 & up to 9.0		
2	Taurus 15- 16MT	Above 6.0 & up to 6.5	Above 2.0 & up to 2.2	Up to 2 and + Allowable Ht.	Above 9.0 & up to 16.0		
3	Taurus 21- 22MT	Above 6.0 & up to 6.5	Above 2.0 & up to 2.2	Up to 2 and + Allowable Ht.	Above 16.0 & up to 22.0		
4	40 feet Trailer	Above 6.5 & up to 15.0	Above 2.2 & up to 4.0	Up to 3	Up to 33MT		
5	70-80 Feet Trailer	Above 15 & up to 24.5	Above 2.2 & up to 4.0	Up to 3	Up to 31MT		
6	LCV	Up to 4.5	Up to 1.80	Up to 2 and + Allowable Ht.	Up to 3.50 MT		

2.30 OTHERS

- 2.30.1 If the value of the work done at any time exceeds the accepted agreement value, the security deposit shall be correspondingly enhanced and the extra security deposit shall immediately be deposited by the Vendor/Service-Provider or recovered from payments due to him.
- 2.30.2 Failure to deposit the security within the stipulated time may lead to forfeiture of Earnest Money and cancellation of the award of work.
- 2.30.3 Any notice, direction or instruction to be given under the Contract shall be in writing and delivered by hand, post, facsimile or e-mail to the Vendor/Service-Provider.
- 2.30.4 BHEL shall not be responsible for any consequences arising out of non-intimation of change of address by the Vendor/Service-Provider
- 2.30.5 It may be noted that as despatches are to take place at different locations in India, it is not possible for BHEL to monitor such loadings, check to the fitness of the vehicle placed, to ensure that the vehicle are loaded to their full capacity and also to restrict over loading. Hence it is the responsibility of the Vendor/Service-Provider to ensure that the vehicles are loaded to their full capacity as per the RC Book, to ensure that overloading is not done, and also to ensure the vehicles placed is fit enough to suit the dispatch of the materials being dispatched. Non observance of the above by the Vendor/Service-Provider, if results in damage / loss to the materials of BHEL, the Vendor/Service-Provider should compensate the loss as demanded by BHEL.

3 SPECIAL CONDITIONS OF THE CONTRACT

3.1 SPECIAL CONDITIONS

- 3.1.1 BHEL may increase or decrease the tendered quantum of work up to a max. of 40% of the original Contract Sum/Value.
- 3.1.2 Lowest prices received against BHEL tenders need not be the technically acceptable one and in that case BHEL may not consider the same and take alternate course of action including refloating the tender.
- 3.1.3 To the extent possible BHEL would avoid negotiation if competitive and reasonable rates acceptable to BHEL are received in the tender.
- 3.1.4 In case negotiation is found necessary, BHEL will negotiate with the L1 Vendor/ Service-Provider.
- 3.1.5 BHEL may negotiate or refloat the tender opened if L1 price is not acceptable to BHEL inter-alia other reasons.
- 3.1.6 If a cartel formation among tenderers is suspected, BHEL may scrap the tender and go for retendering.
- 3.1.7 In the event of awarding contract, the performance of the Vendor/Service-Provider shall be monitored and BHEL will initiate suitable action including suspension / foreclosure / termination of the contract in case of unsatisfactory performance.
- 3.1.8 BHEL may accept or reject the lowest or any other tender or accept or reject any part of such tender. BHEL will communicate reasons thereof.

3.2 STATUTORY REQUIREMENTS

The Vendor/Service-Provider shall comply with the following statutes

- 3.2.1 The Contract labour act (regulation and abolition) 1970 and the related Tamil Nadu Rules.
- 3.2.2 The Minimum Wages Act,1948 and the related Tamil Nadu Rules,
- 3.2.3 The payment of wages Act 1936 and the related Tamil Nadu Rules.
- 3.2.4 The Factories Act 1948 and the related Tamil Nadu Rules.
- 3.2.5 The Workmen Compensation Act 1923,
- 3.2.6 Employees Provident Fund and Miscellaneous Provisions Act 1952,
- 3.2.7 Payment of Gratuity Act 1972,
- 3.2.8 Employee State Insurance Act 1948,
- 3.2.9 Payment of Bonus Act 1965-1
- 3.2.10 Income Tax Act, Service Tax Act

The Vendor/Service-Provider shall comply with all other applicable statutes that may come in to effect from time to time in the course of executing the contract.

3.2.11 Vendor/Service-Provider shall comply with all statutory requirements, rules, regulations, notifications issued from time to time by the concerned authorities, in relation to employment of his employees.

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- 3.2.12 Vendor/Service-Provider shall indemnify BHEL against all claims and losses under various Labour Laws, Statutes or any Civil or Criminal law in connection with employees deployed by him.
- 3.2.13 Vendor/Service-Provider, wherever applicable, shall maintain proper records prescribed by the concerned statutory authorities and provide a copy of the same to BHEL.

3.3 REGISTRATION OF LICENCE

- 3.3.1 Successful Vendor/Service-Provider shall register his/her name with the welfare section of BHEL before taking up the work awarded to him by giving the following information and getting a CODE number.
- 3.3.1.1 The name of the Vendor/Service-Provider
- 3.3.1.2 Nature of the contract work.
- 3.3.1.3 Number of maximum labour employed by him on any one day.
- 3.3.1.4 Licence. No.& Date (applicable in case of Vendor/Service-Providers employing 20 and more workers).
- 3.3.1.5 Whether enrolled for PF, ESI, etc., and enrolment no.
- 3.3.2 This information is called for, for the purpose of informing the inspector of factories whenever they call for information regarding contracts.
- 3.3.3 The Vendor/Service-Provider employing 20 or more workmen is required to obtain licence from the authorities (The Deputy Chief Inspector of Factories/ Assistant Commissioner of Labour as the case may be). The Vendor/Service-Provider shall get his licence amended or renewed for increase in workmen employed by him or in the event contract is being extended or renewed. The Vendor/Service-Provider shall inform the licence number to the BHEL management before taking up the work.

3.4 WAGES

- 3.4.1 The Vendor/Service-Provider has to pay minimum wages to his employees/personnel as fixed by State Government and additional payment as insisted by BHEL.
- 3.4.2 The current minimum wages as fixed by Government of Tamil Nadu for USW is Rs.178.30 per day, for SSW is Rs185.30 per day and for Skilled Worker is Rs.191.30 per day. BHEL insists the additional payment to contract labourer as- for USW Rs.2000/-PM, for SSW Rs.2300/- PM and for Skilled Worker Rs.2500/- PM.
- 3.4.3 Accordingly, the current minimum wages including BHEL insisted additional payment are Rs. 244.06 per day for USW, Rs.260.92 per day for SSW and Rs.273.49 per day for Skilled Worker.
- 3.4.4 The Vendor/Service-Provider shall fix the wage period in respect of which wages shall be payable. No wage period shall exceed one month.
- 3.4.5 The Vendor/Service-Provider shall ensure payment of wages to the labours/personnel employed by him within three days from the end of wage period in case the wage period is one week or a fortnight and in all other cases before 10thday of the following wage period.
- 3.4.6 All payments of wages shall be made on working days at the work site and during the working time and on date notified in advance. In case the work is completed before the expiry of wage period final payment shall be made within the 48 hours of the last working day.

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- 3.4.7 Whenever the employment of worker is terminated by or on behalf of the Vendor/Service-Provider, the wages earned by him shall be paid before the expiry of second working day from the day on which the employment is terminated.
- 3.4.8 Wages due to every labour shall be paid to him direct or to the person authorized by him. All the wages shall be paid in the current coin or currency or both.
- 3.4.9 The Vendor/Service-Provider shall ensure the distribution of wages in the presence of authorised representative of BHEL management. Authorized officer or representative of BHEL management shall verify the above payment with the following certificate on the payment sheet "certified that the amount shown on the column number has been paid to the workmen concerned in my presence on _____ at ____.
- 3.4.10 A notice showing the wage period and place and time of distribution of wages shall be displayed in the place of work and a copy of the same to be send to the welfare department in BHEL by the Vendor/Service-Provider under acknowledgement.

3.5 REGISTERS AND RECORDS

- 3.5.1 The Vendor/Service-Provider shall maintain the following documents/ formats under contract labour (regulation and abolition) act 1970 and Tamil Nadu Rules.
- 3.5.1.1 Register of person employed by the Vendor/Service-Provider.
- 3.5.1.2 Employment card.
- 3.5.1.3 Service certificate.
- 3.5.1.4 Muster roll, wage register, deduction register, wage slip.
- 3.5.1.5 Register of fine, register of advance.
- 3.5.2 The Vendor/Service-Provider shall without fail give up-to-date attendance information in writing for the employees employed by him.
- 3.5.3 The log-book should be maintained for the day to day work executed by the Vendor/Service-Provider and the signature should be obtained from the Executive of BHEL.
- 3.5.4 The following documents will be the basis for arriving at the tonnage handled
- 3.5.5 For receipts, the weight captured in the respective GRs and RSVs / weight entered in SAP will be considered for arriving at the total weight handled on a particular day.
- 3.5.6 For issue of materials, the weight shown in the material Gate Pass / Manual Gate Pass / Excise Invoice will be taken for the total weight handled on a particular day.
- 3.5.7 Bills will be verified and certified by BHEL before processing payments.
- 3.5.8 The Vendor/Service-Provider shall ensure that his labour keep and produce their employment card (Entry Pass/Identity Card) when coming to duty and take them back when leaving duty.
- 3.5.9 All the above original registers and records shall be preserved for a period of three years. All the registers, records and notices maintained under the act and rules shall be produced by the Vendor/Service-Provider on demand by Inspector or any Authority under the act.

3.6 SAFETY CONDITIONS

The Vendor/Service-Provider shall comply with the following Statutes

3.6.1 The Factories Act, 1948,

Section 32: Floors, stairs and means of access shall be properly maintained to ensure safety. Every place of working should have safe access. When any person has to work at a height from which he is likely to fall, provision shall be made, so far as is reasonably practicable, by fencing or otherwise, to ensure the safety of person so working.

3.6.2 8B. Tamil Nadu Factories Rules, 1950,

- 3.6.2.1 Rule 61F: Methods of Work: No process or work shall be carried on in any factory in such a manner as to cause risk of bodily injury.
- 3.6.2.2 Rule 61-N and Rule 61- O: Workers to be provided with Personal Protective equipment suitable for the hazards and should be of good quality / have certification by Indian Standard Institute.
- 3.6.2.3 Note: For the type of work envisaged, personal protective equipment such as helmet, safety shoes and gloves are essential. The Vendor/Service-Provider shall provide all safety devices and personal protective equipment to his labours at his own cost and shall ensure that his workmen wear/use such devices or equipments provided to them while doing the work and there should not be any relaxation on this.
- 3.6.2.4 Rule 96: Notification of accidents: Shall be complied with as required in the Factories Act (Section 88 and Section 88A) and Tamil Nadu Factories Rules.

3.6.3 Others

- 3.6.3.1 The Vendor/Service-Provider shall get the contract labour engaged by him insured under workmen's compensation policy from General Insurance Corporation of India before actually starting the work of contract. The insurance cover should be for the entire period of contract. The Vendor/Service-Provider shall comply with the provisions of the Workmen Compensation Act 1923 (this should be read in conjunction with the provisions of ESI Act).
- 3.6.3.2 Not with-standing anything contrary, in the event of an accident the Vendor/Service-Provider shall fill injury report and submit it to BHEL immediately and ensure the compliance to ESI/Workmen Act, Factory Act and rules made there under. The Vendor/Service-Provider shall also maintain a register of accident as per the act.
- 3.6.3.3 The Vendor/Service-Provider shall ensure the safety of all the workmen, material and equipments either belonging to him or to others working at site (place of work).
- 3.6.3.4 The Vendor/Service-Provider should ensure no inflammable materials/explosives are stored in the storage yard.

3.7 VEHICLES

3.7.1 General

- 3.7.1.1 Vehicles carrying materials should have proper registration documents and must be produced on demand by BHEL security staff.
- 3.7.1.2 The lights on right side (i.e.) over driver's cabin should be in working condition.
- 3.7.1.3 Both the head lights as well as park lamps must be in working condition.

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3.7.2 Handling of Vehicles inside BHEL Trichy

- 3.7.2.1 The vehicle should not travel at more than 20 kmph in BHEL premises.
- 3.7.2.2 The driver of the vehicle must possess heavy duty license and produce on demand by the security staff.
- 3.7.2.3 In road junctions, speed breakers and railway crossing the speed should be lowered and vehicles should proceed cautiously.
- 3.7.2.4 The driving should be kept in the left at all places.
- 3.7.2.5 The vehicle should not be parked in the road in such a way to cause obstruction to vehicular traffic.
- 3.7.2.6 No persons other than driver should be allowed to sit or stand on the prime Movers of the trailer.
- 3.7.2.7 The vehicle should pass only through approved routes. Short cuts are forbidden.
- 3.7.2.8 Safe distance from the vehicle in front shall always be maintained.
- 3.7.2.9 The driver should avoid making quick starts, jerky stops or quick turns at excessive speed.

3.7.3 Transporting Material and Finished Goods (FGs) (responsibilities of the vendor/ service provider)

- 3.7.3.1 Strong side supports should be provided on both sides of the trailer. The side supports should be fixed in such a way that it cannot be removed even temporarily.
- 3.7.3.2 Adequate packing must be given for easy slinging operations. The packing materials should be good enough to withstand the load.
- 3.7.3.3 The stacking of loads on the truck should be evenly placed. The load should not be heaped together or dumped over the chassis.
- 3.7.3.4 The load on the truck should not be beyond its standard capacity as indicated in the RC book. The carrying capacity must be clearly marked on the trailers also.
- 3.7.3.5 The loaded materials should be fastened tightly with wire rope. Coil rope should not at all be used.
 - There must be side packing such as gunny, rubber-tyre between the sharp edges of the job and Wire rope in order to avoid cut in the wire rope.
- 3.7.3.6 There must be minimum two fastening and it should be more in case of lengthier loads.
- 3.7.3.7 The loose pieces should be bundled before loading on the truck.
- 3.7.3.8 There must be red flags or red lamps for the lengthy load which extend beyond chassis. The overhang shall not exceed 1.5 meters from the last support on the vehicle bed.
- 3.7.3.9 The materials should not be stacked too high to avoid hitting against live electric lines.
- 3.7.3.10 While transporting the scrap, there must be wire knitting cover to prevent falling of scrap.
- 3.7.3.11 While loading/unloading proper slinging practice should be followed.

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- 3.7.3.12 The vehicle should not be moved directly inside the production buildings in case the materials are to be loaded, un-loaded there. But the vehicle should be parked outside the building and the driver should ascertain the passage as well as the unloading points, with the help of shop officials. This will avoid the congestion or blocking of traffic in the gang-way.
- 3.7.3.13 When reverse operation are undertaken adequate helpers should be engaged to control the Movement.
- 3.7.3.14 While transporting ODC, if any penalty is levied by Government Authorities, the same shall be refunded to Vendor/Service-Provider by BHEL, on producing the original receipt.

3.8 OPERATIONAL CONTROL PROCEDURE

Purpose: To ensure safety in transporting materials through LCV, HCV/Lorry, Taurus & Trailers.

Scope : Transportation of Heavy consignments from anywhere to

anywhere in India for BHEL

Performance criteria : Accident/Damage Record

Cross Reference : OHSAS 18001:1999 – Clause 4.4.6

Central Motor Vehicles Act and Rules

Record of Hazard and Risk

Activities :

SN.	Activity	Responsibility	
i	The vehicle chosen must have original RC Book, proper Fitness certificate as per Motor Vehicles Act 1988 and	Vendor/Service-Provider	
	amended 1992 Sec.33(256)	V Chachy Service 1 To vider	
ii	Drivers must have valid licence as specified in the Motor Vehicle Sec.3 to 28	Vendor/Service-Provider	
iii	Control of Vehicle Road Permit (Sec. 66-68)	Vendor/Service-Provider	
iv	Control of Traffic Limit – Speed (Sec.112)	Vendor/Service-Provider	
V	Limits of weight and limit in Safety Precautions (Sec.113.114)	Vendor/Service-Provider	
vi	Insurance of Motor vehicle against third party (Sec.146)	Vendor/Service-Provider	
vii	Adherence to Motor Transport Vehicle Act 19	Vendor/Service-Provider	
	61 (Sec.4 & 5)		
viii	Ensure Welfare and Health requirements (Sec.8 – 12)	Vendor/Service-Provider	
ix	Packing/Crating as per instructions.	Vendor/Service-Provider	
X	Insurance of Goods	BHEL	
xi	Documentation: 1) Vehicle Insurance (2)ED Invoice or		
	relevant forms for free issue / rejection material (3)Road	Vendor/Service-Provider,	
	Permit for consignments wherever applicable, (4) Lorry	BHEL	
	Way Bill etc.,		
xii	Special support, Lashing, Checking permissible Over		
	hanging of materials; provision of red flag and light during night in the rear end and sides of the vehicle	Vendor/Service-Provider	
Xiii	Checking of the goods/consignments during loading/unloading and	Vendor/Service-Provider,	
	ensuring safe despatch/delivery.	BHEL	
xiv	Record of information regarding the accident / damage to material.	Vendor/Service-Provider	
XV	Review of accidents/damages to materials	BHEL	

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3.9 MOTOR VEHICLE ACT READ WITH SUPREME COURT DIRECTIVES / AMENDMENTS THEREON

As per the Motor Vehicle Act with the latest amendments/notifications there to, overloading of the vehicles will not be allowed over and above the designated carrying capacity as per the registered document. The Transporter should carry the consignment complying with the applicable provisions of the relevant Motor Vehicle Act/State Act. No payment on account of violation of Motor Vehicle Act/State Act shall be payable. If any of the issues has not been dealt specifically in any schedule then the same will be decided in line with the provisions of other schedules/terms and conditions dealing with the same issue. All the consequential loss/ damages/ additional expenditures that may be incurred by BHEL/ passed on to BHEL, on account of the violation/non-compliance to the act by the vendor/ service provider will have to be totally borne by the vendor/service provider, in the manner deemed fit by BHEL.

3.10 WELFARE CONDITIONS OF LABOURS

- 3.10.1 The Minimum Wages as prescribed by the State Government from time to time should be paid to the contract Workers and the Wage and Attendance Registers should be produced to BHEL Welfare Section every month.
- 3.10.2 If the Vendor/Service-Provider employs more than twenty employees, he has to obtain License to this effect from the Factory Inspectorate and renew the same periodically.
- 3.10.3 It is responsibility of the Vendor/Service-Provider to cover their workmen under ESI & PF Act. If Vendor/Service-Provider is not remitting PF for workmen, BHEL will remit the same and it will be deducted from the Vendor/Service-Provider's Bills.
- 3.10.4 He has to have his own PF and ESI Codes and comply with the relevant Acts.
- 3.10.5 The Vendor/Service-Provider has to remit PF for his workers for the same amount which he paid as total wages to the employees on monthly basis. He has to remit 13.61% from his side and deduct 12% of Wages from the monthly wages of the employees and a total of 25.61% of monthly wages should be remitted as PF i.r.o. each employee.
- 3.10.6 ESI Payment should be at the rate of 6.5% of monthly wages of the employee. This comprises the contribution at 1.75% of wages from the employee and 4.75% of wages from the Vendor/Service-Provider.
- 3.10.7 The Contract workers should be fully aware of safety measures and observe all safety precautions during work. The Vendor/Service-Provider should also make his own arrangements to provide requisite safety devices to the workers, based on the nature of work.
- 3.10.8 Any accident/incident occurring to his workers in Company's(BHEL) premises should be reported in writing by the Vendor/Service-Provider to BHEL(Safety Department, Welfare Section and Line/Area Executive concerned).

3.11 Security Deposit Amount

The successful Vendor/Service-Providers shall furnish Security Deposit in any one of the following modes within 15 days from the date of Letter of Intent. The Security Deposit shall be furnished by the successful Vendor/Service-Provider before commencement of work by him

3.11.1 The security deposit shall not carry any interest.

Total Contract Value	Security Deposit Amount		
Upto Rs.10 lakhs	10 % of the Total Contract Value		
Above Rs.10 lakhs upto Rs.50 lakhs	Rs.1 lakh + 7.5 % of the Total Contract Value		
	exceeding Rs.10 lakhs		
Above Rs.50 lakhs	Rs.4 lakhs + 5 % of the Total Contract Value exceeding		
	Rs.50 lakhs		

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3.11.2 Mode of Remittance of Security Deposit:

- a) Cash (as permissible under the Income Tax Act)
- b) Pay Order, Demand Draft in favour of BHEL.
- c) Local cheques of scheduled banks, subject to realization.
- d) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Vendor/Service-Provider furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- e) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- f) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the Vendor/Service-Provider, A/C BHEL, duly discharged on the back.
- g) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and the balance 50% may be recovered from the running bills.
- h) Acceptance of Security Deposit against Sl. No. (d) and (f) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL shall 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.
- i) EMD of the successful Vendor/Service-Provider will be converted and adjusted against the Security Deposit.

3.11.3 Refund of Security Deposit

- a) The security deposit shall be refunded after successful completion of the Contract as per agreement and subject to deduction of any amount due to BHEL.
- b) Security deposit shall not be refunded to the Vendor/Service-Provider except in accordance with the terms of the Contract.
- c) The Security Deposit mentioned above may be refunded to the Vendor/Service-Provider after a period of 6 months on termination or expiry of the contract provided always that the Vendor/Service-Provider shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE".

3.12 POST TECHNICAL AUDIT OF WORK AND BILLS

BHEL reserves the right to carry out the post-payment Audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof. However no such recovery shall be enforced after three years of passing the final bill.

3.13 SUBMISSION OF BILLS BY VENDOR/SERVICE-PROVIDER

The Vendor/Service-Provider at the end of each month shall submit a bill in triplicate detailing the various items of work done during the month supported by the requisitions issued from time to time. The Vendor/Service-Provider shall, once in every month, submit to the BHEL, separately details of his claims for the work done by him upto and including the previous month which are not covered by his contract agreement in any of the following respects:

- a) Deviation from the items provided in the contract documents.
- b) Extra items / new items of work.
- c) Items in-respect of which rates have not been settled. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done upto and including the period under report.

3.14 PAYMENT OF BILLS

All payments to be made to the Vendor/Service-Provider under this contract shall be by RTGS /CHEQUE (crossed A/C PAYEE ONLY) within a reasonable time after the certification of bills by the BHEL.

3.15 RECOVERY FROM VENDOR/SERVICE-PROVIDER

Whenever under the contract, any sum of money, shall be recoverable from or payable by the Vendor/Service-Provider, the same may be deducted from or any sum then due or which at any time thereafter may become due to Vendor/Service-Provider under the contract or under any other contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

3.16 CANCELLATION OF CONTRACT FOR CORRUPT ACTS

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL, reserves all rights to cancel the contract in any of the following cases and the Vendor/Service-Provider shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extent as provided in the case of cancellation for default.

a) If the Vendor/Service-Provider offers or gives or agrees to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,

OR

b) If the Vendor/Service-Provider enters in to a contract with BHEL in connection with which commission has been paid or agreed to be paid by him with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL.

OR

c) If the Vendor/Service-Provider obtains a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

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3.17 CANCELLATION OF CONTRACT FOR INSOLVENCY ASSIGNMENT OR TRANSFER OR SUB-LETTING OF CONTRACT

BHEL, without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL shall cancel the contract in any of the following cases:

If the Vendor/Service-Provider,

being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors

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being a Company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or Manager on-behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager,

OR

Assigns, Transfers, Sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the BHEL.

- a) Whenever BHEL exercise the authority to cancel the contract under these conditions, BHEL may have the work done by any means at the Vendor/Service-Provider's risk and expense provided always that in the event of the cost of the work so done (as certified by BHEL which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Vendor/Service-Provider under the contract, the Vendor/Service-Provider shall either pay the excess amount ordered by BHEL or the same shall be recovered from the Vendor/Service-Provider by other means.
- b) In case the BHEL carries-out the work under the provisions of this condition the cost to be taken into account in determining the excess cost to be charged to the Vendor/Service-Provider under this condition shall consist of the cost of the materials, hire charges of tools and plants and/or labour provided by the BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the BHEL, whose decision shall be final and conclusive.

3.18 CANCELLATION OF CONTRACT IN PART OR FULL FOR VENDOR'S/SERVICE-PROVIDER'S DEFAULT

If the Vendor/Service-Provider

(a) makes default in carrying out the work as directed and continues in that state after a reasonable notice from BHEL

OR

(b) his authorised representative fails to comply with any of the Terms and Conditions of the contract after reasonable notice in writing with orders properly issued thereunder

BHEL, may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercise the authority to cancel the contract as whole or part under this condition BHEL may complete the work at the Vendor/Service-Provider's risk and cost (as certified by BHEL, which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL. If the cost exceeds the money due to the Vendor/Service-Provider under this contract the Vendor/Service-Provider shall either pay the excess amount ordered by BHEL or the same shall be recovered from the Vendor/Service-Provider by other means.

In case the BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Vendor/Service-Provider under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by the BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the BHEL, whose decision shall be final and conclusive.

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3.19 TERMINATION OF CONTRACT ON DEATH OF VENDOR/SERVICE-PROVIDER

Without prejudice to any of the rights or remedies under this contract, if the Vendor/Service-Provider dies, or if the firm is dissolved or the company is liquidated BHEL shall have the option of terminating the contract without compensation to the Vendor/Service-Provider.

3.20 SPECIAL POWER TO TERMINATION

If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the BHEL shall give notice in writing of the fact to the Vendor/Service-Provider who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

3.21 PRECAUTIONS AGAINST RISK

The Vendor/Service-Provider shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

3.22 INSURANCE COVERAGE

- 3.22.1 Transit insurance for goods (FGs and Material) shall be BHEL's responsibility.
- 3.22.2 The insurance coverage as applicable for Service Providers" Men, Materials, Equipment, Facilities, Transporting vehicles etc. shall be the responsibility of the service provider/vendor.
- 3.22.3 Damage to the BHEL Finished Goods while handling such Goods will be covered by BHEL. However vendor to ensure that the FGs are handled properly and safely.
- 3.22.4 The consequential damages that may occur to BHEL's other equipments / facilities , on account of the damage to the BHEL's Finished Goods while handling, will be covered by BHEL.

3.23 FORCE MAJEURE CLAUSE:-

If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy, Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence thereof neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by BHEL subject to prompt notification by the Vendor/Service-Provider. Mechanical failure of the vehicles is not covered under this clause.

3.24 SIGNING OF CONTRACT

Each contract document shall be signed by the Vendor/Service-Provider with his usual signature. Contract by partnership of Hindu Joint Family firm, may be signed in the FIRM'S name by one of the Partners or the Karta or Manager as the case may be or by any other duly authorised representative followed by the name and designation of the persons so signing. Contracts by a Company shall be signed with the name of the Company by a person authorised in this behalf and a power of attorney or other satisfactory proof showing that the persons signing the Contract documents on behalf of the Company is duly authorised to do so, shall accompany the contract.

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3.25 REMOTE TRANSACTIONS

The Vendor/Service-Provider shall agree to and comply with all such terms and conditions as BHEL may prescribe from time to time and shall confirm that all transactions effected by or through facilities for conducting remote transactions including the Internet, World Wide Web, electronic data interchange, call centers, tele-service operations (whether voice, video, data or combination thereof) or by means of electronic, computer, automated machines network or through other means of telecommunication established by BHEL shall constitute legally binding and valid transactions when done.

3.26 CHANGE IN CONSTITUTION OF VENDOR'S/SERVICE-PROVIDER'S FIRM

Changes in constitution of firm whenever it is made after submission of application or during currency of the contract, the existing firm has to duly inform the proposed changes to BHEL at the appropriate time before the changes in the constitution are made. In case the absence of any such information BHEL is not responsible for the consequences arising out of the absence or suppression of information and the issue / dispute arising out of these changes and the firm is responsible for settling the issue or dispute among themselves (Partners etc.) or with the bankers or with any third party. Under the above circumstances when dispute arises and the firm does not inform the change in the constitution of the firm, BHEL shall reserve all rights for suspending or terminating the contract.

3.27 LIEN OF CONSIGNMENTS

The Vendor/Service-Provider shall have no 'lien' of any kind over the consignments entrusted for transportation. Disputes if any, between the Vendor/Service-Provider and the consignees shall be settled through negotiations, but under no circumstances delivery of the materials shall be withheld by the Vendor/Service-Provider.

3.28 BHEL'S INTERESTS

Vendor/Service-Provider shall watch and safeguard BHEL's interests during the performance of the work. The Vendor/Service-Provider shall carefully check each consignment with the relevant despatch documents to ensure correctness of each despatch and each delivery.