

BOM

SI No	PR Number	Material Code	Material Description	Spec-Var & DrawNo-Var	Quantity	Project Description
1	1900145673	TC9713312562	THERMAL INSUL.(SPRAY TYPE)HMK63/2.8-3 TC9713312562	TC51794-00 23082600275-00	1	Grasim Vilayat, Bharuch STG M-FA-1051 Terms of Delivery : FOR-Destination to Project Site, BHARUCH, VAGRA, Gujarat, 392140
2	1600027024		Erection and Commissioning TC9713312562		1	Delivery : 45 Days

PRE-QUALIFICATION CRITERIA

THERMAL INSULATION FOR STEAM TURBINE & INTEGRAL SYSTEM.

S.No.	BHEL Requirement	Vendor's Confirmation	Deviation if Any	Remarks
1	All the suppliers need to submit this document i.e. titled pre-qualification criteria and furnish required information along with offer.			
2	<p>a) Name, address, e-mail id, contact no.etc. of manufacturer</p> <p>b) Foreign vendors quoting through authorised agency/trading house: Name, address, e-mail id, contact no. etc. of authorised agency / trading house quoting on behalf of manufacturing company . In case offer is received from authorised agency / trading house, the following requirements shall be fulfilled. i) Valid letter of authorisation and copy of agreement to be enclosed with offer. ii) The offer shall be either from the authorised agency or from the manufacturer directly. In case of BHEL receiving offer from both, then offer from manufacturer will only be considered. Offer from an unauthorised agency / entity on behalf of any vendor shall be summarily rejected. iii) Name, address, e-mail id, contact no.etc. of entity on whom order to be released in case of L1 shall be clearly indicated.</p>			
3	Supplier to confirm/provide the following criteria/documents for evaluation of offer.			
a	The Supplier should be an established manufacturer of Insulation materials or their authorized dealers/agents (or) Insulation package vendors and should have successfully completed Manufacture (or) Procurement, Testing & Supply of thermal Insulation earlier.			
b	Supplier shall submit references of minimum 3 jobs completed, satisfying the criteria indicated under clause (a) above. Details of the Thermal Insulation for steam turbine & integral system supplied shall also be provided, like Project & Customer, Description & Quantity of Items supplied, PO details etc. as a minimum for assessing pre-qualification.			
c	Supplier shall submit the insulation thickness			
d	Supplier shall furnish PQC documentation (as stated above) for the complete package.			
e	Supplier should not have been under suspension for business / blacklisted by any of the BHEL units.			
i)	Date of supply			
ii)	Purchaser' s Name, Address, Contact No. & email ID			

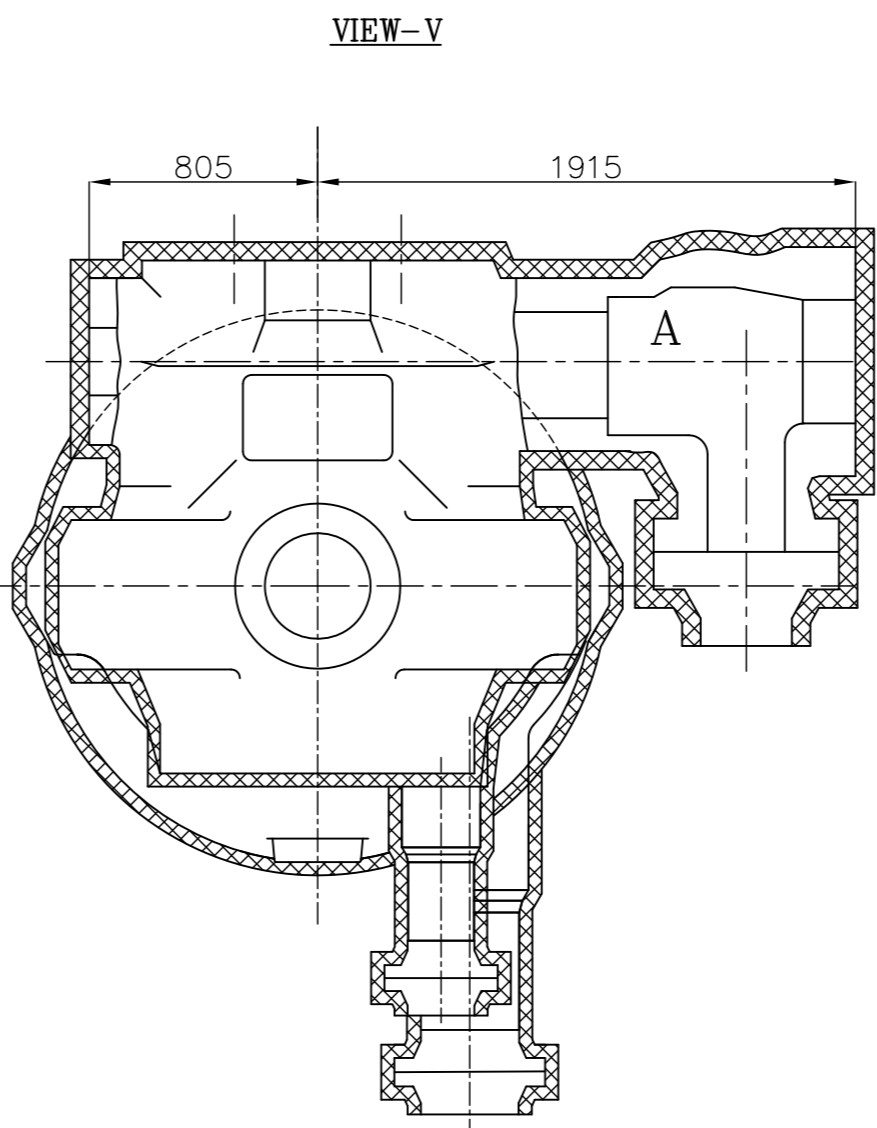
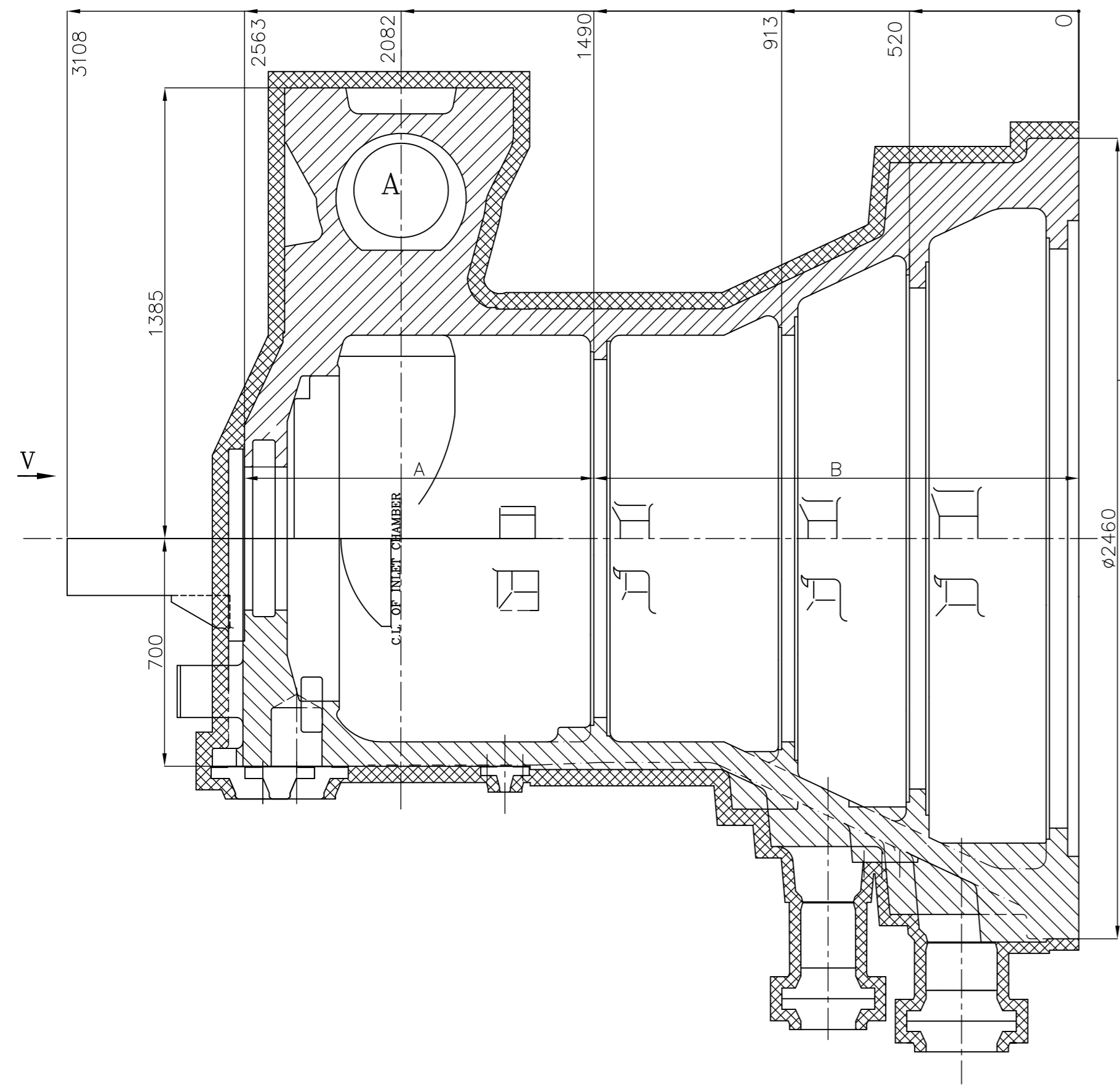
	All the above criteria 3(a) to 3(e) must be combinedly met by the vendor.			
	Note : All the documents shall be furnished only in English. Documents furnished in other languages will not be considered for further evaluation.			
	(f) BHEL reserves the right to cross verify with the above such customers and satisfy itself with reference to the claims of the supplier. If the information furnished by the supplier is not found satisfactory, the offer will be technically rejected.			
4	Offers without the requirement as above 3(a) & 3(b) will not be technically evaluated by BHEL. Further, no correspondence in this matter will be entertained.			
5	The vendors should furnish the detailed process of manufacturing and testing procedures (NDT and destructive) along with the offer.			
6	Vendor to confirm that they will manufacture and supply enquiry item as per BHEL enquiry specification and drawing.			
7	BHEL team may carry out vendor evaluation/assessment(in case of a new vendor) by a visit to vendor works for qualifying /rejecting the technical bid based on the findings of the visit.			

DRG. NO. 2-308-26-00275

SH. 01 OF 01

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GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HY0230261



ZONE		A	B
AREA (SQ.M)/ PIPE SIZE		6.5	10.5
MAX. TEMP(°C)		535	460
MIN. INSULATION THICKNESS (mm)	TOP CASING	250	200
	BOTTOM CASING	300	240

NOTES:

- THIS DRAWING IS INFORMATIVE ONLY AND CAN BE USED FOR ESTIMATION OF INSULATION.
- TEMPERATURE OF INSULATED SURFACES SHOULD NOT EXCEED 60°C.
- TEMPERATURE OF ZONES ARE AS PER TABLE.
- TYPE OF INSULATION : SPRAY INSULATION+CAT-9.
- SURFACE AREA OF INSULATION AS PER TABLE.
- PURCHASE SPEC : TC51794
- MAJOR PARTS OF INSULATION
 - (a) OUTER CASING
 - (b) FLANGES
- THERMAL INSULATION THICKNESS CALCULATIONS SHALL BE IN ACCORDANCE WITH IS: 14164
- SUPPLIER TO NOTE THAT MINIMUM INSULATION THICKNESS SHALL NOT BE LESS THAN THE THICKNESSES AS MENTIONED IN THE TABLE.
- MATERIAL CODE : TC9713312562

IMPORTANT NOTE:
 "THE ERECTION AGENCY SHOULD ENSURE THAT ALL THE CONNECTING FLANGES ARE PROPERLY ASSEMBLED AND BOLTS ARE TIGHTENED FULLY PRIOR TO APPLICATION."

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT **HNK 63/2.8-3**



NAME	SIGN.	DATE	NO. OF VAR.
DRN. RP		24.04.19	
CHD. PATIL		24.04.19	-N.A.-
APPD. RATHOD		24.04.19	

DEPT. I.T.D. CODE 415	UNTOL. DIMS. GR. C/A/F	SCALE N.T.S.	WEIGHT (KG) -N.A.-	REF. TO ASSY. DRG. -N.A.-	ITEM NO. -N.A.-	NO. OF ITEMS -N.A.-
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TITLE	CARD CODE	DRAWING NO.	REV.
TURBINE INSULATION	N.A.	2-308-26-00275	00
	SHT. No	01	NO. OF SHT. 01

REV.	DATE	ALTERED CHD/APPD	REV.	DATE	ALTERED CHD/APPD	REV.	DATE	ALTERED CHD/APPD	REV.	DATE	ALTERED CHD/APPD	REV.	DATE	ALTERED CHD/APPD	REV.	DATE	ALTERED CHD/APPD	
1			2			3			4			5			6			7

BHEL

PRODUCT STANDARD

REV NO: 03

HYD

TURBINES & COMPRESSORS

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PURCHASE TECHNICAL SPECIFICATION OF
THERMAL INSULATION FOR TURBINE
 (SPRAY TYPE)

1.00 INTENT OF SPECIFICATION

This specification is intended to cover the design, supply, delivery, storage at site and application of thermal insulation material including all accessories complete in all respects for steam turbine components at thermal power station.

2.00 GENERAL INFORMATION

In addition to the calculated quantities required to complete the work, which shall include the normal margins for wastage, an additional amount of 5% of insulating material shall be supplied for breakage and losses.

3.00 MATERIAL & SERVICES TO BE FURNISHED BY THE CONTRACTOR

3.01 Contractor shall furnish heat insulation to efficiently prevent abnormal loss of heat from all exposed parts and to limit surface temperature (cold face temperature) within 60 deg C at 0.5 meters per second wind velocity.

Basically, the thickness of the insulation should be so designed that with maximum turbine casings surface temperature, the temperature on the outside of the insulation should never exceed 20 deg C above room temperature.

The temperature of the ambient to be considered is 40 deg C.

The insulation should be so designed that the heat loss shall not appreciably exceed 180 kcal/m² h for natural air flow.

After commissioning of the turbine, if the temperature of the outside insulation surface is found more than the above temperature, the contractor shall supply, the extra material if needed at his cost.

The turbine casing except exhaust hood shall be provided with insulation.

FORMAT
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REV-00

Prepared: G.S.R/P.S.B ; Approved: M.P.B ; Date: 08/03/94
P. Sudhakar *M.P.B*

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Apart from the turbine casing the following components of turbine shall also be provided with insulation wherever applicable :

- Turbine stop and control valve blocks (Left & Right)
- Turbine steam admission piping between valve block and turbine casing
- IP & LP control valve bodies (Left & Right)
- Interconnecting piping of turbine
- Extraction branches of casing
- Drain lines of turbine casing
- The connecting bolts and nuts between outer casing and bearing housing. (These bolts and nuts are to be insulated with asbestos free insulation rope of dia 30mm)
(FIG 6)

The components to be insulated are indicated in the drawing ' TURBINE INSULATION ' enclosed along with ~~this~~ specification.

In case of Turbine casings the insulation will not only restrict the maximum cold face temperature to the desire value but will also ensure that the differential temperature between upper and lower half of the turbine casing is within the permissible limits, under design operating condition. The thickness of the insulation on the bottom part of turbine casing shall be 20% than insulation on top part.

The durability and adherence of insulation layer is of particular importance on the bottom of the casing, therefore special attention shall paid to this when the insulation is designed and applied.

3.02 TYPE OF INSULATION MATERIAL PROPERTICS FOR TURBINE CASING AND VALVE BLOCKS/BODIES

- 3.02.01 The insulation shall be asbestos free spayed Mineral (Rock) wool conforming to IS:9742 and IS:3677 blended with self setting type bonding agent.

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a) MATERIAL DETAILS.

- i) Fibre dia : 4-5 microns
- ii) Sulphur content : less than 0.6%
- iii) Max. service temperature : 700 deg C.
- iv) Non corrosive, Non flammable and Non toxic.
- v) Density:- The density of the applied and dried material shall be in the range of 200-250 kg/m³.
- vi) Thermal conductivity of the material shall not exceed the values given below when determined accordance with the method prescribed in IS : 3346

Mean temperature (Deg C)	Thermal conductivity in (w/mK)
100	0.066
150	0.072
200	0.079
250	0.085
370	0.101

b) BONDING AGENT

- i) Shall be alkali Silicate based formulated with surface drying additives self setting.
- ii) Suitable for temperature applications upto 900 deg C.
- iii) Shall be non-corrosive, non-toxic and non-inflammable.
- iv) Shall be free from un-reacted matter.
- v) Shall not required internal or external drying thus eliminating steam heating of the casing.

3.02.02 OTHER MATERIALS

- a) Thermal insulation finishing cement:
The finishing cement shall be hard-setting composition (Type-1) conforming IS:9743.
When mixed with water it shall be able develop a Plastic consistency to readily adhere to thermal insulation and dry to form a smooth, hard, protective surface. The service temperature limits for it shall be 100 deg C.
- b) Oil resistant paint.
- c) All other attachments, devices and accessories which shall be required to carry out thermal insulation as for this specification.

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4.00 CONSTRUCTIONAL AND INSTALLATION DETAILS FOR TURBINE CASING INSULATION

The following constructional/ installation procedure shall be adopted.

- a) The surfaces to be insulated shall be cleaned to remove dirt, rust, scale and such residues. Any contamination due to oil/grease shall be removed with suitable solvent and then the surface shall be dried.
- b) Then, the support fins are to be stud welded on to the surface to be insulated at about 400 mm intervals, on the support plates of 25x25x3 mm or dia 25 x 3 mm size already welded by casting supplier on the casing. About 50 mm is bent under the upper surface level of the insulation to form holding bridges. The fins serve as anchoring points for the tagging and hence especially mounted in the side and bottom surface of the turbine casings.
- c) All screws and nuts in the area of spray insulation shall be covered in aluminium foil to prevent the increase and caking of contaminants.
- d) Connection heads for thermocouples and WT detector must lie outside the insulation. In case the insulation thickness is too large, a funnel shaped sheet is to be used. All thermocouples shall be marked with sleeves made of aluminium sheet for proper access during maintenance & replacement when necessary (FIG 1).
The length of the casing thermocouple stems measured between outer surface of casing to thermocouple head is 350 mm.
- e) The thickness of the insulation shall be increase by 20% at the bottom of the casings.
- f) There should be no air pockets inside the insulation.
- g) The construction of the insulation at the flange joints of the casings shall be such that it can be easily removed and put again without causing major damage to the main insulation while opening the casings for carrying out the maintenance of the machines(FIG 3). It shall also be ensured that no weak spot exists in the insulation of flange joints and pipe connections.

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- h) Valves and flanges shall be covered with removeable cap type of insulation.
- i) At the front and rear ends of the turbine casings, Aluminium shield plate of 2 mm thickness shall be provided. This prevents the oil from seeping out of the bearing pedestals into the insulation. Their distances from the casing and pedestal shall be chosen, such that the spray insulation on the casing can be carried out to a sufficient thickness as well as to attain a sufficient gap between shield plate and bearing pedestal cover for proper ventilation. Wherever possible the distance of the shield plate from the bearing pedestal cover shall be 40 mm. The shield plates are to be fastened suitably. At any account the bearing cover bolts shall be accessible and the dismantling of the bearing pedestal cover shall not be impeded by the shield plates.
- j) The ability to function and ease of access to the covers and blind flanges shall not be impaired by the insulation.

5.00 APPLICATION PROCEDURE FOR TURBINE CASING AND VALVE INSULATION

5.01 Loose mineral wool fibres mixed with suitable binder is sprayed by means of compressed air on the clean surface through a spray gun. The fibres shall be processed to a designed pattern

and finally conveyed to the application point by means of a hose. The spray gun provided at the end of the hose supplies the binder in the form of a fine spray. The sprayed binder wraps up the fibers and the mixer strikes the surface to be insulated forming a continuous monolithic mass. The required bulk density and the binder proportion shall be achieved by controlling the fiber output, and binder quantity. It shall be necessary to use wooden probes for compacting the sprayed mass in congested and other locations. The surface temperature limited shall also be relaxed to 80 Deg C in such restricted locations with the above mentioned constraints.

The sprayed insulation shall be applied according to figure.2

Each subsequent layer of spray insulation over casing are to be supplied only when initial layers are dried and do not contain more than 7% moisture. At completion of the job the initial layer of insulation should not contain more than 2% moisture.

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5.02 The hard setting finishing cement shall be trowel applied all over the insulated surface with a first coat and final coat as per the approved procedure and sequence.

5.03 The surface shall finally be finished with a coat of 80/100 microns of special duty oil resistant and fire resistant coating.

5.04 This jacketing on insulation shall fulfil the following requirements.

- a) Oil resistance and oil proofness.
- b) High flash-point fluid resistance, and high flash-point fluid proofness.
- c) Resistance to the temperature upto 100 deg C.
- d) Uniform surface smoothness.
- e) Thickness at the top 20 mm. and at bottom 10 mm.
- f) It can be repaired with sealing putty, in case any crack appear.
- g) It can be walked on after two days.

6.00 TYPE OF INSULATION AND MATERIAL PROPERTIES FOR PIPING INSULATION

6.01 The piping shall be insulated with asbestos free mineral (rock) wool in preformed pipe suction conforming to IS:9842.

a) MATERIAL DETAILS:

- i) Density = 150 kg/m³
- ii) Thermal conductivity of the material shall not exceed values given below when determined in accordance with the method prescribed in IS: 3346.

Mean Temperature (deg C)	Thermal conductivity in (mW/cm deg C)
50	0.43
100	0.52
150	0.62
200	0.70
250	0.85
300	1.00

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6.02 OTHER MATERIALS

- a) Aluminium metal sheath which has been subjected to special surface treatment of Al,Mo,Mn material (Resistant to Sea Water) for covering insulated pipes.
- b) All other attachments, devices and accessories which shall be required to carry out thermal insulation as per this specification.

7.00 APPLICATION PROCEDURE FOR PIPING

- 7.01 All surfaces to be insulated shall be cleaned throughly of all foreign materials such as scale, rust and paint before application of insulation.
- 7.02 Preformed mineral (Rock) wool pipe sections of designed thickness shall then be applied over pipe surface.
- 7.03 Where the insulation thickness is more than 120mm. the insulation shall be done in multilayers and the insulation shall be staggered.
- 7.04 Insulated surface of the piping shall be covered with an aluminium sheet held in place by self tapping screws of nickle plated type or other approved make. The thickness of the aluminium sheet shall be subjected to special surface treatment which is resistant to sea water. Apart from the screws, the joints shall be further sealed with a sealing compound.
- 7.05 Supporting elements made of steel strips shall be mounted at a maximum distance of 950 mm (in a longitudinal direction) for use as spacers and centering pieces for sheet metal jacketing. However the spacers shall not be welded on to the pipes and some other suitable arrangement shall be made for their mounting (FIG 5).
- 7.06 Ample provisions shall be made to prevent damage of insulation due to thermal movement of the pipe. Thermal expansion shall not cause gaps.

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7.07 Protrusions through the insulation which themselves do not require insulation such as pipe clamps, supports, small piping instrument tap off points etc. shall be covered to the same thickness as the adjacent insulation and except at hanger rods which are to be tightly sealed.

7.08 The designed thickness for thermal insulation shall be adhered to at the following points.

- a) Flange transitions (FIG 4)
- b) Instrument parts and thermowells.

7.09 Special care shall be taken when insulating the cross over pipes. Hinged connection expansion joints shall be insulated separately taking care that the hinges and guide sections are still flexible and allow for thermal expansion

7.10 Drain lines shall be insulated down to the bottom edge of the turbine foundation.

8.00 DETERMINATION OF INSULATION THICKNESS :

Vendor to determine the insulation thickness in accordance with IS : 14164 based on inputs given in the respective drawings and submit the calculations along with the offer.

Vendor to guarantee the surface temperature of 60 °C after application of insulation.

9.00 DRAWING AND DATA REQUIRED

9.01.00 TO BE FURNISHED WITH PROPOSAL :

- a) Calculations for insulation thickness. A curve showing Metal temprature Vs insulation thickness shall also be supplied by vendor.

Vendor to submit the detailed insulation thickness calculation based on IS : 14164 along with the offer. The offer shall be rejected in the absence of the calculation sheet.

- b) Catalogues and technical literaure of insulation and other materials complete in all respects.
- c) Constructional and application details and drawings for the insulation on various equipments.
- d) Detailed description of the spray technique which shall be followed by the vendor. The technique shall be effective and well proven.
- e) Quality plan.
- f) A preliminary schedule indicating various types of insulation clearly indicating complete bill of materials of insulation, accessories, its weight etc.

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9.02.00 TO BE FURNISHED AFTER AWARD OF CONTRACT

- a) Final schedule indication various types of insulation clearly indicating complete bill of materials of insulation, accessories, its weight etc.
- b) Drawings and installation arrangement.
- c) Test certificates as per the quality plan.
- d) Documentation basis for selection of insulation thickness.

10.00 ACCEPTANCE SPECIFICATIONS

BHEL Representative at site shall inspect the insulation for its completeness and proper workmanship with the following acceptance criteria being applied.

- 10.01 The insulation shall be flawless. It should be ensured that the jacketing sheets are not damaged and have no unnecessary creases.
- 10.02 Check with respect to the type and completeness of the insulation.
- 10.03 Checking the insulation compound thickness specified by the supplier. The inspector authorised by BHEL to carry out acceptance may, for this purpose, pierce the sprayed insulation compound with a pointed piece of wire until contact is made with the insulated part in order to gauge the thickness.
- 10.04 A check shall be made to ensure that all the unit parts as specified in this specification have been insulated.
- 10.05 A check shall be performed to ensure that all parts have been insulated so as to ease inspection and maintenance. (whether caps can be removed from flanges and valves, freedom of movement and proper functioning of clamps etc.)
- 10.06 A check shall be performed to determine whether there are any cracks in the hard setting compound layer.
- 10.07 A check shall be performed to determine whether the oil resistant coating has been applied and is complete (scratch test).
- 10.08 The durability shall also be checked. It shall be possible to walk on the insulation in the area of the Turbine without damaging it.

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10.09 Measures shall be taken during operation to determine whether at certain points the surface temperature exceeds the maximum permissible value.

10.10 If any damage is found at the time of acceptance the causes shall be determined and shall be rectified by the contractor.

10.11 A check shall be made as to whether there is a clean transition at the interface between the scopes of supply of the various insulation firms.

11.00 GENERAL NOTES

11.01 The contractor shall take utmost care to avoid any damage to the equipments/instruments while carrying out the insulation work at site. It is essential that surrounding equipments, piping instruments and surface not to be insulated shall be covered. Wrapped or screened to protect them from over spray of drift as would be done for ordinary spray painting.

11.02 The contractor shall be responsible for the proper storing of the materials at site. He shall also be responsible for proper clean up of the area after completing the insulation work.

11.03 The compressed air at 5 to 6 kg/cm² shall be provided at site to the contractor by BHELs customer.

11.04 Before starting the spray process, the turbine casing and valve blocks shall be heated so as to maintain metal temp. around 100 deg c. Provision of steam for this purpose will be made available by BHELs customer. Alternatively the insulation process is to be carried out immediately after initial rolling of turbine and stoppage when the turbine is warm.

11.05 The turbine must be run on barring while the cylinder are heated up by steam.

12.00 PACKING AND MARKING

Packing and marking shall be as per IS:9742, IS:9042 and IS:7743 as applicable.

13.00 ENCLOSURES TO THIS SPECIFICATION

Drawing showing turbine temp. at different regions of casing components to be insulated and estimated area to be insulated.

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1. Sprayed/trowelled Insulation
2. Hard cement finish thickness tap 20mm
3. Oil proof point thickness 80 to 100mm

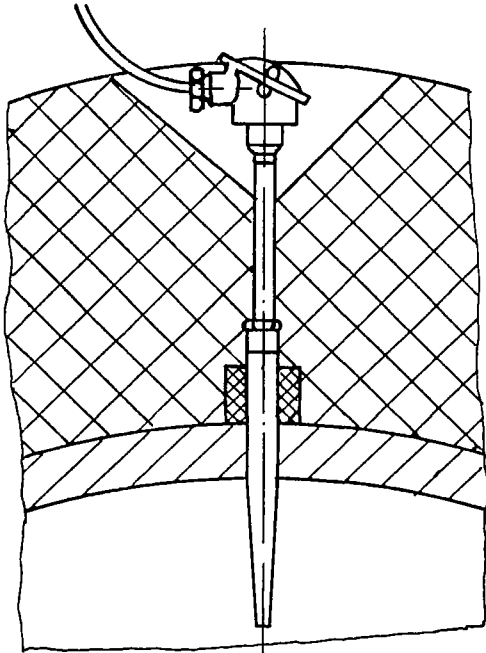


FIG-1

Thermal Insulation at temprature measuring point

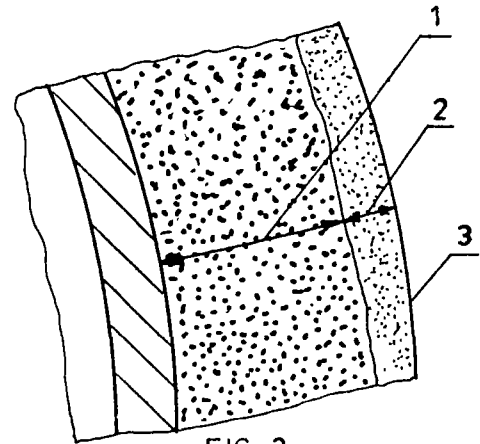


FIG-2

Hard cement finish for sprayed/trowelled insulation

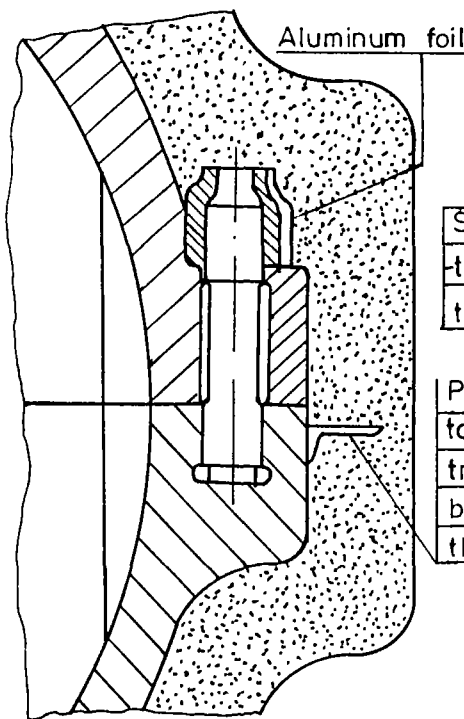


FIG-3

Sprayed/trowelled Insulation at turbine casing joint

Shaped cap easily removable divided into 2 to 3 parts with toggle catch

Sprayed trowelled Insulation Equal Insulation thickness

Prior to disassembly of tap casing the sprayed trowelled Insulation is to be removed down to the L border

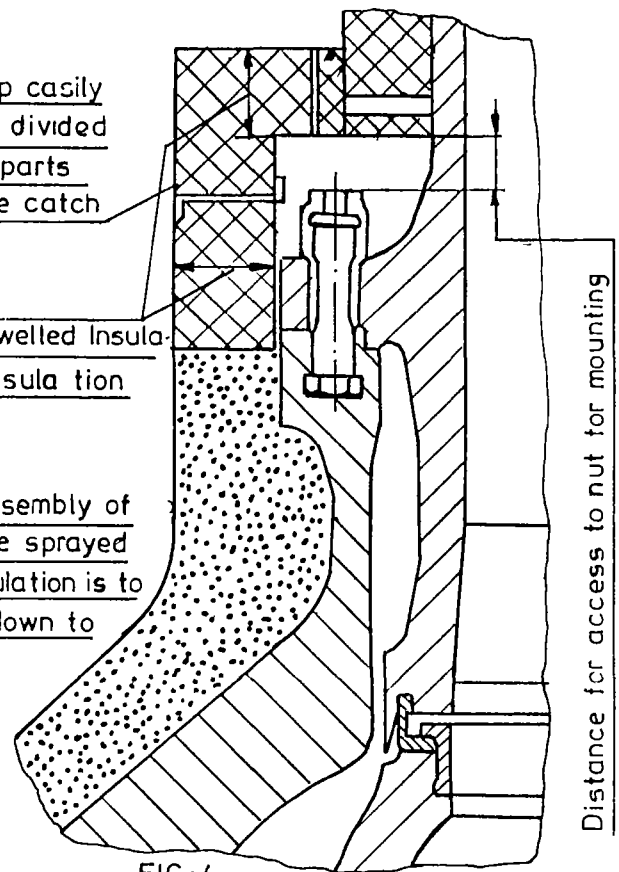


FIG-4

Thermal Insulation at steam Inlet Inserts of turbine casing

Distance for access to nut for mounting

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Rock wool mats on netting or glass fibre mats width of mat 500 mm, thickness of mat 30, 40,....120 mm. Staggered joints with multi layer versions.

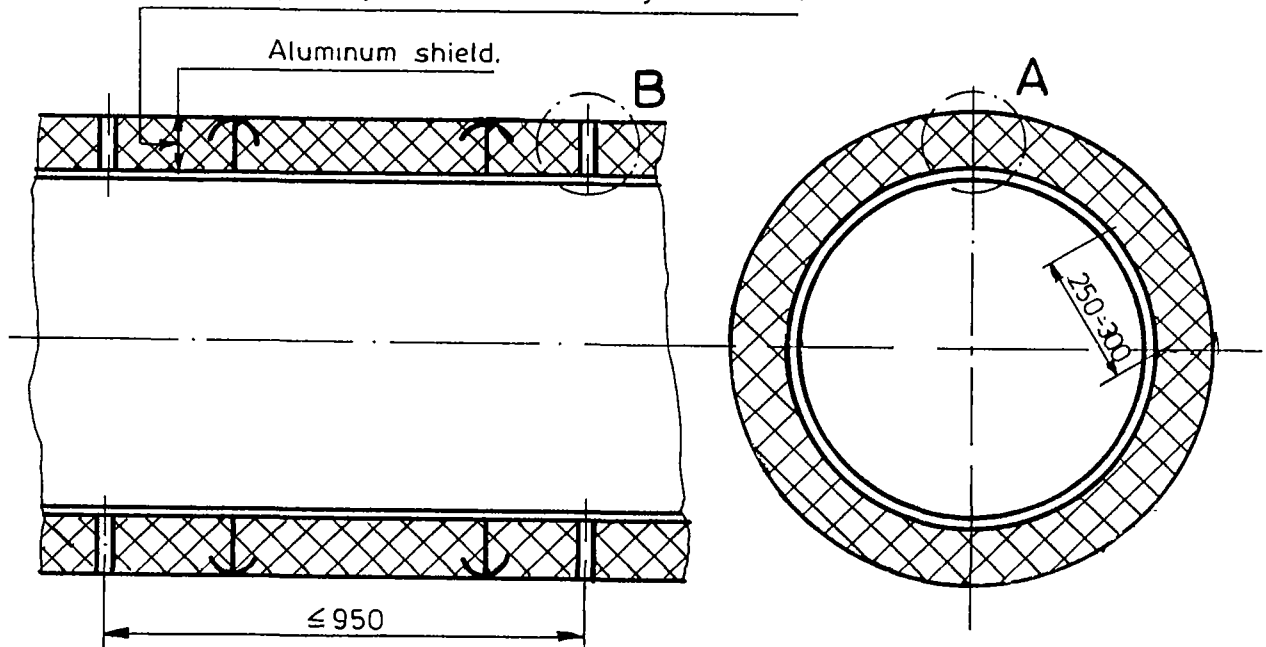


FIG-5. Standard version of pipe Insulation.

DETAIL-A

DETAIL-B

Note:-

Information concerning the structure of piping Insulation which simultaneously has good sound absorption qualities for piping systems transmitting structure borne noise in accordance with technical delivery specifications.

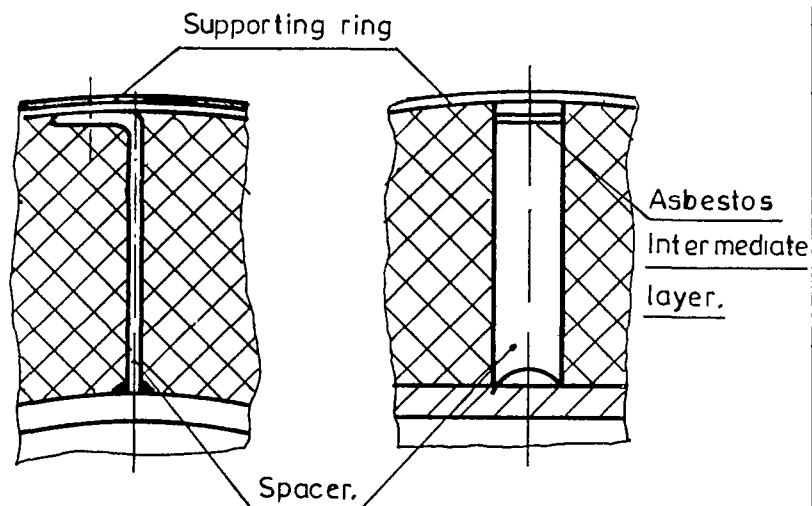


FIG-5

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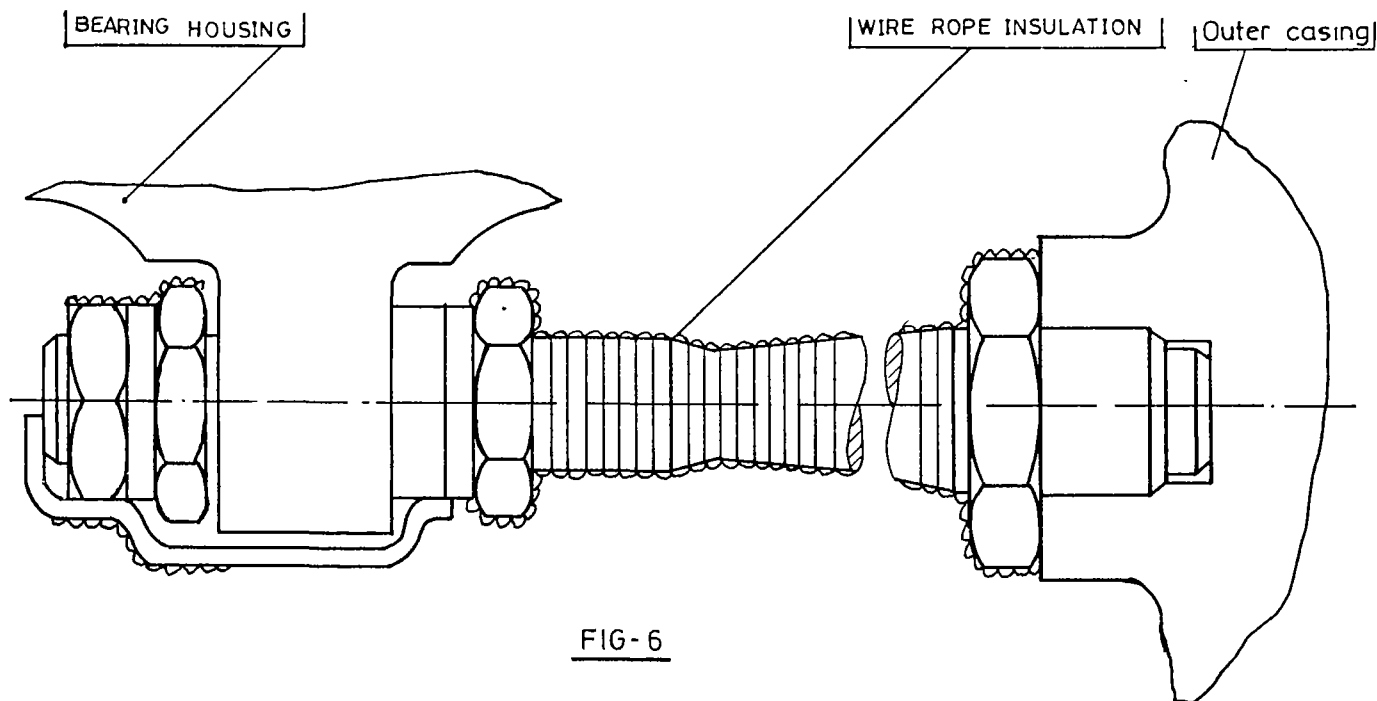


FIG-6

Conna bolts for brg housing & casing

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BUYER SPECIFIC - ADDITIONAL TERMS & CONDITIONS (ATC)		
NOTE: Bidder to confirm in affirmative by typing "YES" or "Applicable Data" in the response column.		
Sl. No.	DETAILED TERMS & CONDITIONS	BIDDER RESPONSE
1	GENERAL INSTRUCTIONS:	
A	The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated. The offer including annexures and brochures should be submitted in English. All Pages of Techno Commercial Bids (Main Pages), ATC should be signed and Stamped. Prices shall be quoted both in figures and words. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 Status.	
B	Bidders to please note that the Terms & conditions contained in this document and ATC are to be read fully before submission of quotations.	
C	Bidders are advised to comply with ATC, should there be any deviations (where deviations are permitted), it shall be entered in the deviation column. BHEL reserves the right to reject such offers.	
2	Documentation for Payment	
A	Indigenous Purchase	
	Following documents shall be submitted immediately on dispatch of material to BHEL HPEP Site a. Original Tax Invoice (Refer ITB clause no 11 for Tax Compliance) b. Packing List - clearly showing number of packages, gross weight and net weight. c. Test/Warranty/Guarantee certificates, O&M Manual (If specified in ANNEXURE) d. Insurance intimation/declaration certificate e. Pre-dispatch Inspection report /Third Party Inspection Certificates. f. Consignee copy of LR signed & stamped by Customer/Site representative for DD Items g. e-waybill.	
3	Payment Terms: Following shall be the terms of Payment.	
	Indigenous: a. Micro & Small Enterprises (MSEs) - 100% Direct EFT payment within 45 days b. Medium Enterprises - 100% Direct EFT payment within 60 days c. Non MSME Bidders - 100% direct EFT Payment within 90 Days Note A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of submission of complete set of documents as per PO whichever is later. Payment will be made on acceptance of Material. B. MSEs (covered under MSME Act) need to register and renew periodically and update the same with BHEL C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery date or the amount actually paid whichever is less. D. Adherence to the above time schedule of payment is contingent upon Bidder complying with GST provisions and availment of Input Tax Credit by BHEL before the date of payment. E. In case of packaged items, 10% of supply value will be retained till completion of total supplies.	
4	Excess materials supplied beyond tolerance limit as specified in PO will not be paid and bidder may raise credit note for the excess/unaccepted material as per GST law.	
5	Rejected materials , if any, shall be collected by the bidder within 90 days of such communication to the bidder. Beyond this period the bidder forfeits their right to the materials.	
6	PERFORMANCE BANK GUARANTEE (PBG) (Applicable in case mentioned in Annexure G) In case enquiry specifically spells out PBG requirement, PBG is to be submitted by Bidder in requisite format as per Annexure VII. Further detailing on PBG as specified in Annexure G. The PBG shall be for the performance of the goods and shall remain binding notwithstanding such variations, alterations or extensions of item as may be made, given, conceded or agreed to between the Bidder and BHEL under these Terms and conditions or otherwise.	
7	Procurement directly from the manufacturers/ suppliers shall be preferred. However, no agent shall be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both from the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.	
8	RIGHT OF REJECTION /NON- PLACEMENT OF PO: BHEL reserves the right to accept or reject any or all bid/s in full or part without assigning any reason whatsoever.	



9	INTEGRITY PACT Bidders shall have to enter into Integrity Pact with BHEL as per Annexure VI - for Tender value of rupees two crores and above and shall be signed by the authorized signatory along with the offer, failing which Bidder's offer will be rejected.
	BHEL HPEP is registered with RXIL (TReDS) platform. MSME bidders are requested to get registered with RXIL (TReDS) platform to avail the facility as per the GOI guidelines.
10	Inspection Measuring and Test Equipment (IMTE) used by the Bidder/ Contractor or sub-contractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.
11	ISO-9001, ISO14001 and OHSAS 18001 shall be complied
12	Risk Purchase clause: In case bidder fails/delays to supply whole or part of the ordered items or supplies defective items or fails to fulfil any other terms and conditions given in Purchase Order/Contract, BHEL has the right to terminate the order/contract or withdraw balance scope of work/supply and make the purchase of such material / services from elsewhere at the risk and cost of the defaulted bidder. The bidder is liable for the additional expenditure / difference in Cost, if any, including consequential losses which BHEL may sustain by reason of risk purchase in addition to the applicable LD as per the order/contract. Non-performance of contract attracts penal provisions in line with BHEL guidelines for Suspension of Business Dealings (SBD).
13	Any other terms and conditions of the bidder attached / referred against the tender enquiry will not be considered.
14	All drawings, patterns and tools supplied by BHEL or made at BHEL's expense are BHEL's property. These cannot be used or referred to any other party and must be used only in the execution of BHEL's orders.
15	Any amount payable by the bidder under any of the conditions of this contract shall be liable to be adjusted against any amount payable to the bidder under any other work / contract awarded by BHEL HPEP or any other BHEL Units. This is without prejudice to any other action as may be deemed fit by BHEL.
16	The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, will be rejected. The list of firms banned by BHEL is available on BHEL web site: www.bhel.com
17	Execution The whole contract is to be executed in the most workman like manner, substantial and approved as per the contracted terms.
18	Progress Report The bidder shall render such report as to the progress of work and in such form as may be called for by the Buyer from time to time. The submission and acceptance of such reports shall not prejudice the rights of the buyer in any manner. Bidder shall communicate to BHEL immediately, the change of address, ownership, contact person(s), the mobile numbers and e-mail of the dealing person concerned. Milestones shall be periodically updated by bidder through PRADAN Portal (https://web.bhelhyd.co.in/mm/). Non updation will adversely affect service rating of bidder performance.
19	Non-disclosure Obligations Drawings, technical documents or other technical information received by one party shall not without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are confidential and binding only to the extent that they are by reference expressly included in the contract. The bidder shall, as per agreed date/s but not later than the date of delivery, provide free of charge any information and/or drawings which are necessary to permit the Buyer to erect, commission, operate and maintain the product. Such information and drawings shall be supplied as specified in technical specification. All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the contract shall continue to be the property of the submitting party. The bidder shall provide Buyer with all information pertaining to the delivery in so far as it could be of importance to Buyer. The bidder shall not reveal confidential information to its own employees not involved with the tender/contract and its execution and delivery or to third parties, unless Buyer has agreed to this in writing beforehand. The bidder shall not be entitled to use the Buyer's name in advertisements and other commercial publications including website without prior written permission from Buyer. In the event of violation of the confidentiality as agreed, BHEL will take legal action as deemed fit. Non-disclosure agreement to be entered as per Annexure- II wherever applicable.
20	Inspection and Testing
A	The goods and stores shall be manufactured by approved quality system and each part/component may be inspected and tested by the Buyer prior to shipment and shall comply with relevant requirements. Buyer has the right to inspect at any stage during manufacture/ delivery.



B	<p>Buyer or his authorized representative shall be entitled at all reasonable times during execution to inspect, examine and test at the bidder's premises the material and workmanship of all stores to be supplied under the contract, and if the part of the stores are being manufactured at other premises, the bidder shall obtain for buyer or his authorized representative permission to inspect, examine and test as if the said stores are being manufactured at the bidder's premises. Such inspection, examination and testing, if made shall not release the bidder from any obligation under the contract.</p> <p>For indigenous bidders all costs related to first inspection request shall be borne by the buyer and the cost of subsequent inspections due to non-readiness of material/rework/ rejections shall be borne by the bidder. In case of imports all inspection charges including third party inspections if any shall be borne by the bidder. The cost of inspection staff/third party specified by the Buyer shall be borne by bidder unless otherwise specifically agreed. If the contract provides for tests on the premises of the bidder or any of his sub-contractor/s, bidder shall be responsible to provide such assistance, labor, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by the bidder unless otherwise specifically agreed in the contract. The Bidder shall give the authorized representative of the buyer reasonable notice in writing of the date on and the place at which any stores will be ready for inspection/ testing as provided in the Contract. Annexure – I, may strictly be complied with for the time lines. Any delay in submission of the documents by the bidder will not alter the delivery date.</p>
21	Quality and Condition of the Deliverables
	The bidder shall be responsible for compliance with applicable technical, safety, quality, environmental requirements and other regulations in relation to products, packaging and raw and ancillary materials.
22	Packaging and Dispatch
	<p>The bidder shall package the deliverables safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by sea/air/rail/road to its destination suitably protected against loss, damage, corrosion in transit and the effect or tropical salt laden atmosphere. The packages shall be provided with fixtures/hooks and sling marks as may be required for easy and safe handling by mechanical means. Special packaging conditions/ environmental conditions as defined in the NIT shall be fully complied.</p> <p>Each package must be marked with consignee name, address, P.O. number, Package Number, gross weight & net weight, dimensions (Lx B x H) and bidder's name. The packing shall allow for easy removal and checking of goods on receipt and comply with carrier's conditions of packing or established trade practices. Packing list for goods inside each package with P.O. item No. & quantity must also be fixed securely outside the box to indicate the contents. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols/instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.</p>
23	Rejected/Short shipments/ warranty/guarantee replacements
	In case of any short shipment during initial supply which is subsequently dispatched by the bidder or any guarantee / warranty replacements shall be dispatched on "DDP-Delivered duty paid BHEL stores" basis for imported items and "FOR-BHEL Stores/designated destination" basis for indigenous items.
24	Non-waiver of Defaults
	If any individual provision of the contract is invalid, the other provisions shall not be affected.
25	Settlement of Disputes
	<p>Except as otherwise specifically provided in the contract, all disputes concerning questions of the facts arising under the contract, shall be decided by the Buyer, subject to written appeal by the bidder to the buyer, whose decision shall be final.</p> <p>Any disputes of differences shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration</p> <p>The bidder shall continue to perform the contract, pending settlement of disputes(s).</p>
26	Conciliation clause
	<p>CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.</p> <p>The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure in http://www.bhel.com/index.php/story_details?story=2454 . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB</p>
27	ARBITRATION (WITH SOLE ARBITRATOR)
	<p>Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, penalty deduction, validity or execution of the Contract; time extension, or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration . Sole arbitrator to be appointed by Head of the Unit - BHEL , HPEP .</p>
	The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.
	Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.
	The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.
	<p>Subject to the arbitration in terms of clause 45, the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.</p> <p>Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.</p>



	ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT
	In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No 4(1)/2013-DPE(GM/FTS 1835 dated 22-05-2018
28	Applicable Laws and jurisdiction of Courts
	This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.
29	BHEL-Fraud prevention policy shall be adhered to.
	The Bidder along with its associate/ Collaborators/ Sub-contractors/ sub-bidders/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention policy displayed on BHEL Website http://www.bhel.com and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice. List of nodal officers is hosted on BHEL Hyderabad website https://hpep.bhel.com/ .
30	Suspected Cartel Formation
	The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case , the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies / guidelines .

Note: Purchase officer has to fill Annexure-I while sending enquiry

Special Conditions of Contract (SCC) for GEM

Sl.No	Buyer ATC Clause No.	Clause	Available Options	BHEL requirements	Bidder response
1		Bank Guarantee against milestone payment	(If envisaged to be detailed with %)		
2	Others	Contract execution Bank Guarantee	__% of PO Value to be submitted after receipt of PO / Not Applicable		
3	17	Performance Bank Guarantee			
4		Guarantee / Warranty Period	<p>a. Guarantee period shall be 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.</p> <p>b. In case erection & commissioning is involved, Guarantee period shall be 12 months from the date of commissioning.</p> <p>c. In case of equipment bought as a package which are intended to be incorporated in installations or systems, the guarantee period shall be 12 months from the date of commissioning of such equipment.</p>		
5		Detailed Billing Breakup (BBU)	Applicable / Not applicable		
6	48		(If applicable , Bidder shall provide detailed billing break-up in respect of the major items/components (stipulated in the tender) as part of offer .)		
7		Customer approval of vendor	Applicable / Not applicable		
8	Others	Drawing approval	Applicable / Not applicable		
9		QAP approval	Applicable / Not applicable		
10	36	Inspection by	BHEL / BHEL TPI / Vendor TPI / Customer		

Annexure-I			
Major Activity timelines shall be considered for indigenous purchases			
S No	Activity	Agency	Timeline
1	PO acknowledgement	Vendor	_____ days from PO
2	Submission of Drawings and QP	Vendor	_____ days from PO
3	Approval of Drawings and QP	BHEL/Customer	_____ days from PO
4	Raising of Inspection Call	Vendor	_____ days from PO
5	Inspection completion	Self/BHEL/Third party inspection agency	_____ days from inspection call date
6	Despatch Instructions	BHEL	_____ days from inspection report
7	Receipt of Material	Vendor	_____ days from Despatch instructions

Above is illustrative only. Purchase department can add more activities depending on nature of product/contracts

However absence of this annexure in NIT will entail non processing of delivery extension cases in case of delay in supplies of goods owing to reason attributable to BHEL.

(To be executed on Non- Judicial Stamp Paper for an appropriate value.
To be stamped as an agreement)

(For Suppliers on Unit's / Division's PMD)

ANNEXURE-II

Framework Confidentiality Agreement Cum Undertaking

This Agreement made on this the _____ day of (month) _____ 20 ____ (“Effective Date”) by and between M/s. BHARAT HEAVY ELECTRICALS LIMITED, having registered office at “BHEL House”, Siri Fort, New Delhi – 110049 (India), acting through its _____ Unit (hereinafter may be referred to as “BHEL” or “the company”).

And

M/s. _____ (address) _____
represented by authorized representative Sri _____ (herein after referred to as the “Supplier”).

The supplier and the company may, unless the context otherwise requires, hereinafter be collectively referred to as “Parties” or singly as the “Party”.

RECITALS

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL / its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with contract(s) (as defined hereunder) placed or to be placed upon the supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as under:

1. Definitions:

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the contract entered into with a supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.
- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
- D. **“Technical Information”** includes Drawings, and / or Product Standards and / or Specifications and / or Corporate / Plant Specifications and / or Technological Process Sheets and / or Technical Data Sheets and / or Jigs & Fixtures and / or Pattern & Dies and / or Special Gauges and / or Tools etc. Belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Suppliers.
- E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the supplier under or in connection with a contract.
- F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (Whether in terms of effectiveness or in terms of efficiency or both) of the product and / or the service to be provided by the Supplier under a Contract.

2. This Agreement shall come into force / deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the supplier; whichever is earlier.

3. **Agreement deemed to be incorporated in each contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contract has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.

4. **Ownership:**

4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.

4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of

BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the supplier any license or right of use of such patent, copyright or design or any other intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the contract and / or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

4.3 Neither party is obligated by or under this Agreement to purchase from or provide to the other party any service or product and that any such purchase / sale of any product and / or service by one party to the other party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.

4.4 The Supplier is / has been made well aware and acknowledges that the Technical Information being / which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.

4.5 The supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors /suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the supplier or its employees or sub-contractors / suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.

4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights / title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings / documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvements

in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the supplier.

5. Use and Non – Disclosure:

5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.

5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and / or service to any third party, without the prior written consent of the Company.

5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is / was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.

5.5 This Supplier undertakes and agrees not to make copies or extracts of and not to disclose to other any or all of the Technical Information in its possession, except as follows:

(a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked

clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.

- (b) With the prior written consent of Company, the supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
- (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the supplier intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

6. Exceptions:

The Obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was / is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

- 7. The Obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of _____ years from the date when the complete Technical Information has been returned in portions on different dates, the period of ____ years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of _____ years.

8. Warranties & Undertakings:

- a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.
- b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material / documents belonging to him / it or to any other third party.
- c) The Supplier further undertakes that he / it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and / or equipment of the Company, made available to him / it, and undertakes that he / it shall hold the same as a trustee, in capacity of custodian thereof and use / utilise the same solely for the purpose of executing the contract awarded by the Company.
- d) The Supplier further undertakes that he / it shall return all the equipment and / or Technical Information as far as practicable in the same condition in which the same was made available to him / it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope of work or contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and / or Technical Information / improvement thereof. In case any such equipment and / or Technical Information or thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or improvement thereto shall continue to be governed by this Agreement.
- e) The Supplier undertakes to indemnify the Company for all the direct, indirect and / or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and / or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the forgoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take

any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 9 (f) hereinabove, the Company shall have a right to withhold, recovery and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him / it by any department / office / unit/ division of the said Company.

10. Arbitration & Conciliation:

Except as provided elsewhere in this contract, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the contract; or, the respective rights and liabilities of the parties; or, in relation to interpretation of any provision of the contract; or, in any manner touching upon the contract, then, either party may, by a notice in writing to the other party refer such dispute or difference to the sole arbitration of an arbitrator appointed by head of the BHEL unit issuing the contract.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause, the seat of arbitration shall be at Hyderabad.

The cost of arbitration shall be borne as per the award of the Arbitrator.

Subject to the arbitration in terms of clause 55, the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.

Notwithstanding the existence or any dispute or differences and / or reference for the arbitration, the contractor shall proceed with and continue without hindrance the performance of its obligations under this contract with due diligence and expedition in a professional manner except where the contract has been terminated by either party in terms of this contract.

In case of contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contract, such dispute or difference shall be referred by either party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and

justice, Government of India. Upon such reference the dispute shall be decided by the Law secretary or the special Secretary or Additional secretary when so authorized by the Law secretary, whose decision shall bind the parties hereto finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the arbitrator.

11. Governing Law & Jurisdiction:

This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.

SIGNATURE

WITNESSES

1

Name:

Address:

2

Name:

Address:

Annexure - III

Proforma for self-certification by Supplier for minimum local content on their letter head for tender value less than Rs 10 Crore

"We _____ (Name of Manufacturer) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. _____ (to be filled as notified in the policy) for claiming Purchase Preference linked with Local Contents under the Govt. policy against tender no. _____."

Auditor's certification with respect to minimum local content on the letter head of Statutory Auditor for tender value above Rs.10 crore

"We _____ the statutory auditor of M/s _____ (name of the bidder) hereby certify that M/s _____ (name of manufacturer) meet the mandatory Local Content requirements of the Goods and/or Services i.e. _____ (to be filled as notified in the policy) quoted vide offer No. _____ dated _____ against BHEL's tender No. _____ by M/s _____ (Name of the bidder)."

Annexure - IV

Proforma for self-certification by Supplier for Compliance to Clause No 20 (B)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and I certify that M/s.... (Name of firm) is **not from such a country/is from such a country** (delete whichever is NOT applicable) and has been duly registered with the Competent authority (delete if NOT applicable) . I hereby certify M/s fulfills all requirements in this regard and is eligible to be considered . (where applicable , valid registration by the competent authority shall be attached)

Sd/-

Authorised Signatory with Stamp