



A Maharatna Company
ISO 9001 Company
ISO 50001 Company

भारत हेवी इलेक्ट्रिकल्स लिमिटेड Bharat Heavy Electricals Limited

(A Government of India Enterprise)
High Pressure Boiler Plant
Tiruchirappalli - 620 014

MATERIALS MANAGEMENT

4th Floor, 24 Bldg. HPBP BHEL, Trichy-620014

Phone: 0431 - 257 8109, 7446; E-mail: kevin@bhel.in, mohann@bhel.in; www.bhel.com

NOTICE INVITING e-TENDER

Ref: GEM/2021/95FSC

25.06.2021

Ref : Tender No. BID NO: BID NO: GEM/2021/B/1309960 dt 25.06.2021

Subject : Two-part **e-Tender** inviting techno-commercial and price bid for supply of MULTIPAIR SHIELDED, THERMOPLASTIC SHEATHED CABLE FOR FLAME SCANNER SYSTEM OF COAL FIRED THERMAL POWER PLANT / BHUSAWAL PROJECT.

General Instructions

- The tender documents shall be deemed to form an integral part of the purchase order.
- Tender can be cancelled at any stage due to unavoidable circumstances.
- Bidders are advised not to wait till the last minutes w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- Bidders are advised take due care while quoting the technical and price bid. Bidders, those who tampers with tendering procedure affecting ordering process or misusing the technical information of the tender document or withdrawing their offer after price bid opening, will be penalized as per BHEL guidelines on suspension of business dealings with suppliers/ contractors. Abridged version of the guideline is available in www.bhel.com.
- It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
- Pre-qualification of vendors will be as per the PQR document. It is mandatory to submit the PQR related documents; else the offer is liable not be evaluated.
- DISCLAIMER CLAUSE: Neither the Organization (Bharat Heavy Electricals Ltd.) nor the service provider for e-tendering is responsible for any failure of submission of bids, due to failure of internet or other connectivity problems or reasons thereof.
- Deviations, if any, may be indicated in the Sub-Delivery Enquiry Deviation Format; else mention NIL DEVIATION
- Inspection & testing requirements: Inspection and testing requirements are to be carried out as per the specification and BHEL/customer approved QP and all test certificates are to be submitted in complete set as indicated in our specification /QAP. In case of Vendor QP the same shall be submitted for approval along with the offer.

- PAYMENT TERM: 100% payment will be released within ten (10) days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills unless otherwise specified in STC / ATC.
- LIQUIDATED DAMAGES: If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.
- The terms & conditions in GeM will form part of Contract / Order.
- Techno-Commercial bids of vendors will be evaluated; however, the Price bid will be opened, subject to our customer's approval, else their offer will be rejected. Vendors shall submit credentials for taking up with customer, for their approval.
- Any pre-bid query, kindly contact: Mr. Kevin Ark Kumar, Manager/Materials Management/BOI Tel: 0431-2578109, email: kevin@bhel.in; Mr. N Mohan, Asst./Engineer/Materials Management/BOI Tel: 0431-2577446, email: mohann@bhel.in and get your queries cleared before submitting the offer in EPS. Rates once quoted online in the E-tendering Portal cannot be changed, after due date and shall remain final.

For **Bharat Heavy Electricals Limited**

Kevin Ark Kumar

Manager / Materials Management

Fourth floor, 24 Building

B.H.E.L., Tiruchirappalli – 620 014, Tamil Nadu

Phone: 0431-2578109 / Email: kevin@bhel.in

	CONTROLS & INSTRUMENTATION (FB) PRE-QUALIFICATION REQUIREMENT (PQR) GUIDELINES	CI:PE:PQR:CAB Rev. No: 00 Dt. : 11-06-2021
---	---	---

CABLES REQUIREMENT [95-091] – FLAME SCANNER CABLE

Sl. No.	Description	Bid Requirements
1.	Type of Vendor	Vendor shall be the Original Equipment Manufacturer (OEM) of Flame scanner cables.
2.	Proven Track record/Past Experience	• Vendor shall demonstrate their capability of track record of having supplied at least one customer order of similar lot size and variety of cables, as per the present enquiry, to be deployed in any power plant or equivalent industrial applications in India, within last 4 years as on the date of enquiry. • Vendor shall submit the reference list (signed and sealed) with details of customer, project/site, year of supply, contact details & recent PO copies. • Vendor shall submit the copy of the largest purchase order in terms of Quantity & value, executed by them so far.
3.	Facilities required	All machineries and facilities that are required for the complete manufacturing of cables, shall be available in-house. None of the major stages/processes, involved in the manufacturing of the cable, shall be off loaded or out-sourced.
4.	Testing Facilities	Vendor shall have the facility to conduct acceptance, routine and type tests as per the enquiry, either in-house or at NABL accredited labs.
5.	Past Supply Association / Experience with BHEL	Previous purchase orders executed with BHEL, if any shall be referred to.

PACKAGE DETAILS

SL No,	MATLCD	DESCRIPTION	UOM	QTY	DESTINATION	QUOTED / NOT QUOTED
10	L172719509101001	FLAME SCANNER CABLE - P/O SHIELDED 2 PAIR X 1.31 SQ.MM , PAIR SHIELDED AND OVERALL SHIELDED, FLAME SCANNER CABLE AS PER DATASHEET NO DS.TCI:158/STD REV. 03 AND STANDARD QUALITY PLAN QA:CI:STD:QP:28, REV. 04 (MAIN SUPPLY)	M	8,500.000	PROJECT SITE BHUSAWAL, MH	
20	L1727S9509101001	FLAME SCANNER CABLE - P/O SHIELDED 2 PAIR X 1.31 SQ.MM , PAIR SHIELDED AND OVERALL SHIELDED, FLAME SCANNER CABLE AS PER DATASHEET NO DS.TCI:158/STD REV. 03 AND STANDARD QUALITY PLAN QA:CI:STD:QP:28, REV. 04 (SPARES)	M	850.000	BHEL STORES TRICHY, TN	
		TOTAL		9,350.00		

NOTE:

- 1 The tender is floated as a Single Package
- 2 Partial Offer will be rejected
- 3 Do Not mention the prices here
- 4 S No. 20 is Spares requirement & the cable length to be despatched in separate drum & shall be clearly marked "NS-S (Mandatory Spares)"

TECHNICAL DETAILS-1

MATERIAL CODE	L172719509101001
ITEM NAME	MULTIPAIR SHIELDED, THERMOPLASTIC SHEATHED CABLE FOR FLAME SCANNER SYSTEM OF COAL FIRED THERMAL POWER PLANT
ITEM DESCRIPTION	FLAME SCANNER CABLE - P/O SHIELDED 2 PAIR X 1.31 SQ.MM, PAIR SHIELDED AND OVERALL SHIELDED, FLAME SCANNER CABLE AS PER DATASHEET NO DS:TCI:158/STD REV. 03 AND STANDARD QUALITY PLAN QA:CI:STD:QP:28, REV. 04 (MAIN SUPPLY)
UNIT OF MEASUREMENT	METER

TECHNICAL DETAILS-2

MATERIAL CODE	L1727S9509101001
ITEM NAME	MULTIPAIR SHIELDED, THERMOPLASTIC SHEATHED CABLE FOR FLAME SCANNER SYSTEM OF COAL FIRED THERMAL POWER PLANT
ITEM DESCRIPTION	FLAME SCANNER CABLE - P/O SHIELDED 2 PAIR X 1.31 SQ.MM, PAIR SHIELDED AND OVERALL SHIELDED, FLAME SCANNER CABLE AS PER DATASHEET NO DS:TCI:158/STD REV. 03 AND STANDARD QUALITY PLAN QA:CI:STD:QP:28, REV. 04 (MAIN SUPPLY)
UNIT OF MEASUREMENT	METER



Bharat Heavy Electricals Limited

HIGH PRESSURE BOILER PLANT, TIRUCHIRAPPALLI 620 014.

CONTROLS AND INSTRUMENTATION/FB

DATASHEET FOR FLAME SCANNER CABLE

Datasheet No. : DS:TCI:158/STD, Rev. 03

Revision History

Rev. No.	Date	Description	Prepared	Reviewed	Approved
			K Sudharsan	K Sudharsan	Aswini Kumar Panda
00-02	23-04-2016	Initial Release & Revisit	-Sd-	-Sd-	-Sd-
03	22-11-2019	Updated 14e & 23			

Technical Data sheet for Flame scanner cable

Data sheet No. : DS:TCI:158/STD, Rev. 03

1	Applicable Standards	IS-8130, IS-10418, IEC-332, IEC-754-1, IEEE-383, ASTM-D-2843, ASTM-D-2863, SS-4241475	
2	Voltage grade	Volt	650/1100
3	Temperature Rating	°C	125
4	Construction of cable	As per Constructional Diagram Enclosed.	
5	Conductor :-		
a	No. of Pairs and Area of Conductor	Nos / Sq.mm	2 Pair x 1.3 sq.mm
b	No. of Strands / Strand dia. (for finished cable)	Nos / Sq.mm	19/0.3
c	Material		Annealed, Tinned, Copper
d	Grade/Standard		High Conductivity, Electrolytic grade Annealed, Tinned, Copper to IS-8130
6	Insulation :-		
a	Material - Thermoplastic/Elastomeric/Equivalent material to suit Electrical, Mechanical Properties and Ambient Temperature Rating		As per Annexure
b	Standard		As per Annexure
c	Thickness	mm	0.6 (Nominal)
d	Method of application		As per Annexure
e	Pair Identification		Pair-1 → Red & Black, Pair-2 → Green & White
7	Lay for pairing (max.)	Twist/ metre	20
8	Direction of lay (for pairing)		Right Hand
9	Lay for laidup pairs	Twist/ metre	10
10	Polyester/Melinex Tape :-		
a	Type of Material		Melinex tape
b	Thickness	mm	0.025
c	Coverage	%	100

Technical Data sheet for Flame scanner cable

Data sheet No. : DS:TCI:158/STD, Rev. 03

d	Overlap	%	25
11	Filler Material (if applicable)		FRLS, Non hygroscopic material suitable for the operating temperature of the cable. Fillers shall not stick to insulation and sheath
12	Shielding :-		
a	Type of Material		Aluminium Backed Mylar Tape
b	Thickness	mm	For Pair Shielding → 0.028 mm For Over all Shielding → 0.055 mm
c	Coverage	%	100%
d	Overlap	%	25%
13	Drain wire for Shielding :-		
a	Material		Annealed, Tinned Copper
b	Grade/Standard		High Conductivity, Electrolytic grade, Annealed, Tinned, Copper to IS-8130
c	No. of strands / Dia. of strand	No./mm	12/0.3
d	Area of cross section	Sq.mm	0.82
14	Outer Sheath :-		
a	Material - Thermoplastic/Elastomeric/Equivalent material to suit Electrical, Mechanical Properties and Ambient Temperature Rating		As per Annexure
b	Type and Standard		As per Annexure
c	Thickness	mm	0.8 (Nominal)
d	Method of application		As per Annexure
e	Colour		BLUE
f	Special Property		Outer sheath shall have anti-rodent and anti-termite property. Presence of lead shall be confirmed.
g	Diameter over Outer Sheath (maximum)	mm	13 (+)0 , (-) 1

Technical Data sheet for Flame scanner cable

Data sheet No. : DS:TCI:158/STD, Rev. 03

15	Cable Marking on Outer sheath	@ 1 metre	Manufacturer's Name or Trademark, Year of Manufacture, 2 Pair x 1.3 Sq.mm., 125 °C, 650/1100 V, FRLS, Flame Scanner Cable, by Printing
16	Sequential marking on Outer sheath		Every 1 Metre for Progressive Length
17	Standard Packing Length	metre	1000
18	Tolerance on standard packing length	%	± 5
19	Non-standard Length		Last length shall be supplied in single length
20	Electrical Parameters at 20° C :-		
a	Insulation Resistance (minimum)	MΩ/km	100
b	DC Resistance of Conductor (maximum)	Ω/km	14.6
c	Mutual Capacitance @ 0.8 kHz (approx.)	nF/km	105
d	Characteristic Impedance (approx.)	Ω	150 - 200
e	Attenuation @ 0.8 kHz (approx.)	dB/km	0.5
f	Cross talk @ 0.8 kHz (approx.)	db/km	70
g	Test Voltage - Between Conductor & Conductor	kV per minute	2
h	Test Voltage - Between Conductor & Shield	kV per minute	0.5
21	FRLS Properties of Insulation and Outer Sheath :-		
a	Oxygen Index @ ambient temp. As per ASTM-D-2863	%	Not Less than 29
b	Temperature Index @ oxygen index 21 As per ASTM-D-2863	°C	Not Less than 250
c	Smoke density rating As per ASTM-D-2843	%	Shall not be more than 60
d	Acid gas generation As per IEC 754	%	Shall not be more than 20 % by weight
e	Flammability Tests As per IEEE 383, IEC 332 part-3 Cat C and SS 4241475		Shall pass

Technical Data sheet for Flame scanner cable

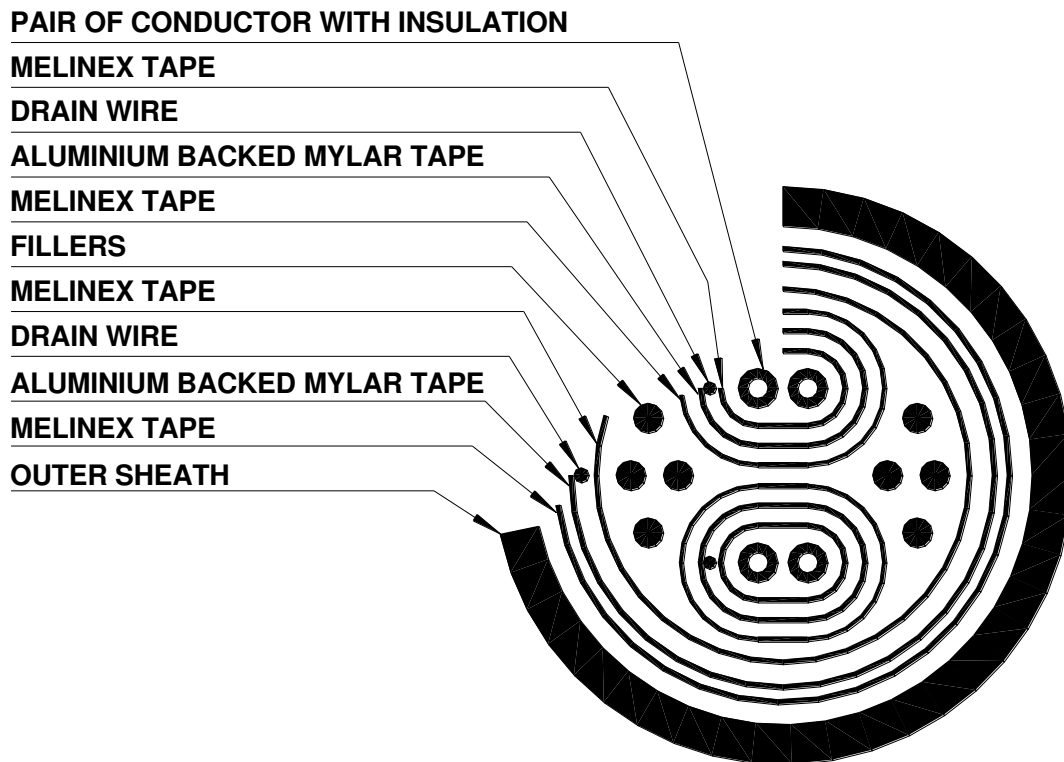
Data sheet No. : DS:TCI:158/STD, Rev. 03

22	Quality Plan	As per Enquiry Requirement			
23	Tensile Strength / Percentage Elongation:-				
	Description	Insulation		Outer Sheath	
	Test	Tensile Strength	% Elongation	Tensile Strength	% Elongation
a	At ambient (minimum)	4 - 10 N/mm ²	125 %	6 - 10 N/mm ²	125 %
b	After ageing @ 100°C for 168 hours	±(10-30) %	±(20-30) %	±(10-30) %	±(20-30) %
c	Volume Resistivity (minimum)	1 x 10 ¹³ Ω-cm @ 27 °C and 1 x 10 ¹⁰ Ω-cm @ 90 °C			
24	Packing Details	Cables shall be supplied in Non-returnable wooden drums of heavy construction. The surface of the drum and the outer most cable layer shall be covered with waterproof cover. Both the ends of the cables shall be properly sealed with heat shrinkable PVC/Rubber caps secured by ‘U’ nails to eliminate ingress of water during transportation, storage and erection. All ferrous parts used shall be treated with suitable rust preventive finish or coating to avoid rusting during transit or storage. Wooden drum shall be treated by immersing in copper-nitrate solution and shall comply with IS-10418. Each drum shall carry Manufacturer’s name or trademark, Type of cable, Voltage grade, Year of manufacture, Type of insulation, Number of pairs & size of conductor, Cable code (FRLS), Length of cable on drum. Approximate gross mass, IS/IEC number, ISI mark in printed form. A tag containing same information shall be attached to the both ends of the cable. An arrow and suitable accompanying wording shall be marked on one end of the drum indicating the direction of rotation in which it should be rolled.			

Technical Data sheet for Flame scanner cable

Data sheet No. : DS:TCI:158/STD, Rev. 03

CONSTRUCTIONAL DIAGRAM OF FLAME SCANNER CABLE



POSITION, SHAPE OF FILLERS AND NUMBER OF FILLER SHALL BE SUITABLY DECIDED BY THE VENDOR.

Special Instructions to the Vendor :-	
Site Conditions	Dusty, Salty, corrosive & Heavily polluted
Over all Quantity Tolerance	(+) 0 / (-) 2 %
Guarantee	A Guarantee Certificate for 18 months of trouble-free operation/ performance from the date of shipment or 12 months from the date of commissioning whichever is earlier shall be furnished.
Confirmation to be given by the vendor during offer submission	1. Sub-Delivery Enquiry Deviation format shall be filled with "No Deviation", indicating the Data sheet and Quality Plan reference and shall be furnished along with the offer. 2. Technical deviation/non-conformance indicated elsewhere in the offer will not be considered. 3. In the absence of Sub-Delivery Enquiry Deviation format, the vendor's offer will not be evaluated. 4. All the vendor dependent data/values shall be filled in the Annexure attached and shall be submitted along with the offer.
After Purchase Order	1. Vendor shall submit the completely filled in annexure along with the datasheet to BHEL-Trichy for approval. 2. Vendor shall start manufacturing of the cable only after approval of the datasheet.

Technical Data sheet for Flame scanner cable

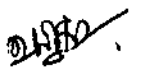
Data sheet No. : DS:TCI:158/STD, Rev. 03

ANNEXURE

Datasheet Requirement			Vendor to indicate the values & material
1	Dia. over Conductor	mm	
2	Dia. over insulated conductor	mm	
3	Dia. Over laid up Pair	mm	
4	Weight of cable	kg/km	
5	Material for Insulation and Outer Sheath		
a	Thermoplastic/Elastomeric/Equivalent material to suit Electrical, Mechanical Properties and Ambient Temperature Rating		
b	Type and Standard		
c	Method of application		

**BHARAT HEAVY ELECTRICALS LIMITED / TIRUCHIRAPPALLI
CONTROLS AND INSTRUMENTATION/QA/FB**

**STANDARD QUALITY PLAN
FOR
ELASTOMERIC/THERMOPLASTIC/EQUIVALENT CABLES**

REV	DATE	PREPARED	REVIEWED	APPROVED	REVISION HISTORY
00	19.01.91	--- Sd ---	--- Sd ---	--- Sd ---	Initial release.
01	16.06.97	--- Sd ---	--- Sd ---	--- Sd ---	Format revised
02	21.03.02	--- Sd ---	--- Sd ---	--- Sd ---	Department name changed, CTQ requirements added & General revision.
03	08.01.04	RM.VAIRAVAN	N.SRIDHAR	S.SOMASUNDARAM	Revised to include the comments /Feedback of internal discussion.
04	03.11.05	RM.VAIRAVAN 	N.SRIDHAR 	S.SOMASUNDARAM 	Revised to include the points inline with Engg. spec. TCI:158/06

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
NOTE : 1. This is a general QP for Elastomeric/Thermoplastic/Equivalent cables of all combination. 2. Applicability of tests will be based on Purchase specification requirements.										
A.	RAW MATERIALS & BOUGHT OUT ITEMS INSPECTION									
1.	Copper Rod / Wires	a) Diameter	MEAS	OSPL of 1000 mtr.	IS 613, IS 8130 & specification	T.R / LGB	P	V	-	Material TC from Supplier shall be produced at the time of inspection.
		b) Tensile strength	MECH	- do -	- do -	- do -	P	V	-	
		c) % Elongation	MECH	- do -	- do -	- do -	P	V	-	
		d) Resistivity	ELEC	- do -	- do -	- do -	P	V	-	
2.	Elastomeric compound (for insulation sheath) # Refer Note-11	a) Tensile strength and Elongation (Before and after ageing).	MECH	- do -	IS 10810 , IS 6380, Approved data sheet	- do -	P	V	-	
		b) Volume resistivity at 27 °C	ELEC	- do -	- do -	- do -	P	V	-	
		C) Hot Deformation	THER	- do -	- do -	- do -	P	V	-	
3.	Galvanised wire / strip (If applicable)	a) Dimension	MEAS	OSPL of 1000 mtr.	IS 3975 & specification	T.R / LGB	P	V	-	
		b) Tensile strength & % Elongation	MECH	- do -	- do -	- do -	P	V	-	
		c) Mass of Zinc Coating	CHEM	- do -	- do -	- do -	P	V	-	
		d) Uniformity of Zinc Coating	CHEM	- do -	- do -	- do -	P	V	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
4.	Melinex type	a) Dimension	MEAS	OSPL of 1000 mtr.	Approved Data sheet	- do -	P	V	-	
		b) Tensile strength	MECH	- do -	Manufacturer's Std.,	- do -	P	V	-	
		c) Heat stability	THER	- do -	- do -	- do -	P	V	-	
		d) Tear strength	PHYS	- do -	- do -	- do -	P	V	-	
5.	Aluminium Backed Mylar Tape	a) Dimension	MECH	OSPL of 1000 mtr.	Manufacturer's Std.,	T.R / LGB	P	V	-	
		b) Adhesion of Aluminium tape with Mylar tape.	CHEM	- do -	- do -	- do -	P	V	-	
		c) Conductivity of Aluminium tape	ELEC	- do -	- do -	- do -	P	V	-	
B.	<u>IN PROCESS INSPECTION</u>									
1.	Copper Wire (For Conductor & Drain Wire)	a) Diameter	MEAS	- do -	IS 8130 , IS 10810 , Specification & Approved data sheet.	LGB	P	V	-	
		b) Surface finish	VISU	- do -	- do -	- do -	P	V	-	
		c) % Elongation	MECH	- do -	- do -	- do -	P	V	-	
		d) Per Sulphate Test (Applicable For tinned conductor)	CHEM	- do -	- do -	- do -	P	V	-	
		e) Resistance	ELEC	- do -	- do -	- do -	P	V	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
2.	Conductor formation (For conductor & drain wire)	a) Number of wires	VISU	At start on sample from each setting	IS 8130 , IS 10810 & Specification Approved data sheet	LGB	P	V	-	
		b) Diameter of wire	MEAS	- do -	- do -	- do -	P	V	-	
		c) Stranding direction	VISU	- do -	- do -	- do -	P	V	-	
		d) Stranding pitch	MEAS	- do -	- do -	- do -	P	V	-	
		e) Conductor surface	VISU	100%	- do -	- do -	P	V	-	
		f) Conductor resistance	ELEC	- do -	- do -	- do -	P	V	-	
3.	Insulated Core # Refer Note-11	a) Thickness and colour of insulation	MEAS	At start on sample from each setting	IS10810 ,IS 9868 (Part 1) , IS 6380 & Approved data sheet	- do -	P	V	-	
		b) Dia over insulation	MEAS	- do -	- do -	- do -	P	V	-	
		c) Concentricity	MEAS	- do -	Manufacturer' s Std.	- do -	P	V	-	
		d) Tensile strength	MECH	- do -	Approved data sheet	- do -	P	V	-	
		e) % Elongation	MECH	- do -	- do -	- do -	P	V	-	
		f) Insulation Resistance	ELEC	- do -	- do -	- do -	P	V	-	
		g) Spark test	ELEC	100 %	3 KV RMS	LGB	P	V	-	
		h) HV test	ELEC	One Sample from each setting	2 KV rms for 1 minute in water.	- do -	P	V	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
4.	Pair Twisting and cable formation.	a) Colour sequence of cores	VISU	Sample from each setting	Specification , Approved data sheet	- do -	P	V	-	
		b) Direction of laying up	VISU	- do -	Manufacturer' s Standard	- do -	P	V	-	
		c) Lay length	MEAS	- do -	Approved data sheet	- do -	P	V	-	
		d) Diameter over laid up core	MEAS	- do -	- do -	- do -	P	V	-	
		e) Binder type	VISU	- do -	- do -	- do -	P	V	-	
5.	Individual pair Screening & over all screening with Drain Wire.	a) Number of layers	VISU	- do -	Specification Approved data sheet	- do -	P	V	-	
		b) Over lap	VISU	- do -	- do -	- do -	P	V	-	
		c) Tightness & coverage	VISU & MEAS	- do -	- do -	- do -	P	V	-	
		d) Surface finish	MEAS	- do -	- do -	- do -	P	V	-	
		e) Continuity	ELEC	- do -	- do -	- do -	P	V	-	
6.	Inner Sheath (If applicable) # Refer Note-11	a) Diameter over inner sheath	MEAS	OSPL	IS 9968 (Part 1), IS 6380 Specification and Approved data sheet	LGB	P	V	-	
		b) Thickness	MEAS	OSPL	- do -	- do -	P	V	-	
		c) Surface finish	VISU	- do -	- do -	- do -	P	V	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
7.	Armouring (If applicable)	a) Size of wire/strip	MEAS	Starting & End of Sample	Approved data sheet	- do -	P	V	-	No gap more than a wire/strip is allowed.
		b) Diameter over armour	MEAS	- do -	- do -	- do -	P	V	-	
		c) Direction of Lay & coverage	VISU	- do -	- do -	- do -	P	V	-	
		d) Surface finish	VISU	- do -	Manufacturer' s Std.,	- do -	P	V	-	
8.	Outer sheath # Refer Note-11	a) Diameter over sheath	MEAS	One Random sample of 1 Mr	Approved data sheet	LGB	P	V	-	
		b) Thickness	MEAS	- do -	- do -	- do -	P	V	-	
		c) Eccentricity	VISU	- do -	Manufacturer' s Standard	- do -	P	V	-	
		d) Surface finish	VISU	Over continuous length	- do -	- do -	P	V	-	
		e) Tensile Strength & % Elongation	MEAS	One Random Sample of 1 Mr	IS 9968	- do -	P	V	-	
		f) Marking & Embossing	VISU	- do -	- do -	- do -	P	V	-	
9.	Drums	a) Anti Termite Treatment	VISU	100%	Manufacturer 's Std.,	- do -	P	-	-	
		b) Anti Fungus Treatment	CHEM	- do -	- do -	- do -	P	-	-	
		c) Nails clinched inside	VISU	- do -	- do -	- do -	P	-	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
C. 1.	<u>FINAL INSPECTION</u> Routine tests	d) Clearance from logging minimum 10 mm	VISU	- do -	- do -	- do -	P	-	-	Verification of TC
		e) Painting & Packing	VISU	- do -	- do -	- do -	P	-	-	
		a) Conductor resistance	ELEC	100%	IS 8130, IS 10810 Approved data sheet.	LGB	P	V	-	
		b) Insulation resistance	ELEC	- do -	- do -	- do -	P	V	-	
		d) High Voltage test	ELEC	- do -	- do -	- do -	P	V	-	
	Acceptance Tests	e) Drain wire continuity	ELEC	- do -	- do -	- do -	P	V	-	
		a) Conductor resistance	ELEC	10% of quantity subject to a minimum of 1 drum	Approved data sheet	T.R	P	W	-	
		⇒ b) Constructional , Dimensional check & Colour coding	VISU & MEAS	- do -	- do -	- do -	P	W	-	
		d) Drain wire continuity	ELEC	- do -	- do -	- do -	P	W	-	
		e) Insulation resistance test	ELEC	- do -	- do -	- do -	P	W	-	
2.	⇒ f) Electrical test parameter (Mutual	ELEC	10% of quantity subject to	Approved data sheet	T.R	P	W	-		

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
		Capacitance, characteristic impedance, attenuation and cross talk)		a minimum of 1 drum						
		g) Per sulphate test(Applicable for tinned conductor)	ELEC	- do -	IS 8130	- do -	P	W	-	
		h) Verification of coil length, finish and cable marking	MEAS	- do -	Approved data sheet	- do -	P	W	-	
		i) Flammability Characteristic (Finished cable)								
		i) Swedish chimney test.	ENVI	OSPL	SS 424 14 75,CI.F3	- do -	P	W	-	
		ii) Vertical Flame Test.	ENVI	- do -	IEEE - 383	- do -	P	W	-	
		j) FRLS test for insulation and sheath								
		i) Oxygen index	ENVI	- do -	ASTM-D 2863 & Approved data sheet	- do -	P	W	-	
		ii) Temperature index	ENVI	- do -	- do -	- do -	P	W	-	
		iii) Smoke density rating	ENVI	- do -	ASTM-D 2843 & Approved data sheet	T.R	P	W	-	

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
3.	Type Tests	iv) Acid gas generation	ENVI	- do -	IEC 754 (1) & Approved data sheet .	- do -	P	W	-	
		k) FR test on fillers if any								
		i) Oxygen index	ENVI	- do -	ASTM-D 2863 & Approved data sheet	- do -	P	W	-	
		ii) Temperature index	ENVI	- do -	- do -	- do -	P	W	-	
		l) Volume resistivity at 27 deg. C	ELEC	- do -	Approved data sheet	- do -	P	W	-	
		m)Tensile strength & % elongation of insulation and sheath before and after ageing	ENVI	- do -	- do -	- do -	P	W	-	
		a) Per Sulphate test (For tinned copper)	CHEM	OSPL	IS 8130, IS 10810 & Approved data sheet	- do -	P	V	-	Verification of TC
		b) Annealing test (For Copper)	MECH	- do -	- do -	- do -	P	V	-	Verification of TC
		c) Conductor resistance	ELEC	- do -	- do -	T.R	P	V	-	Verification of TC
		d) Test For Thickness of insulation and sheath and overall diameter.(Where Specified)	MEAS	- do -	- do -	- do -	P	V	-	Verification of TC

SL. NO.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REF.DOC. & ACCEPTANCE STANDARD	FORMAT OF RECORD	AGENCY			REMARKS
							M	B	C	
		e) Physical tests for insulation and sheath (As applicable)					P	V	-	
		i) Tensile strength and elongation at break	MECH	- do -	- do -	- do -	P	V	-	Verification of TC
		ii) Ageing in air oven	ENVI	- do -	- do -	- do -	P	V	-	Verification of TC
		iii) Hot deformation test	ENVI	- do -	- do -	- do -	P	V	-	Verification of TC
		f) Insulation resistance	ELEC	- do -	- do -	- do -				Verification of TC
		g) High voltage test	ELEC	- do -	IS 10810 & Approved data sheet	T.R	P	V	-	Verification of TC
		h) Flammability test (Applicable to finished cable)								
		i) Swedish chimney test.	ENVI	OSPL	SS 424 14 75,CI.F3	- do -	P	V	-	Verification of TC
		ii) Vertical Flame Test.	ENVI	- do -	IEEE- 383	- do -	P	V	-	Verification of TC

D. NOTES :**1.LEGEND:**

PHYS : PHYSICAL; CHEM : CHEMICAL;
 ELEC : ELECTRICAL; VISU : VISUAL;
 MECH : MECHANICAL; MEAS : MEASUREMENT
 OSPL : ONE SAMPLE PER LOT; TC : TEST CERTIFICATES;
 ⇒ :CRITICAL TO QUALITY POINTS; TR : TEST REPORT
 FRLS : FIRE RETARDANT LOW SMOKE;

2. All testing facilities shall be arranged by the vendor at their works.
3. Through Log Books/any other documents available at the vendor's works, it shall be possible to correlate the finished product with raw material & in process stage checks / inspection carried out.
4. All measuring & testing instruments shall be periodically calibrated from recognized test houses & certificates made available during inspection for verification.
5. Test certificates for routine & type tests conducted on offered cables are to be furnished by the vendor.
6. Vendor to give tentative inspection program in advance & confirm exact date two weeks in advance for arranging BHEL's inspection.
7. Packing shall be as per the "PACKING PROCEDURE " indicated in the Specification.
8. Cable ends shall be sealed with heat shrinkable type PVC caps to avoid ingress of moisture.
9. Process records for all stages shall be certified by vendors QC and are subject to review during inspection. Traceability shall be possible during inspection for raw material of conductor, insulation , sheath , wire and compound.

10. Elastomeric/Thermoplastic/Equivalent compound and other raw materials shall be procured from reputed manufacturer only. If special insulation and sheath compounds (eg. Low Smoke Low Halogen type) are being used, manufacturer's guaranteed technical particulars and T.C shall be available for review.

11. Wherever Thermoplastic/Equivalent material is offered for Insulation and Sheath , the same shall be indicated under "Remarks" column of QP with applicable standard. QP will be reviewed for the suitability as per the options provided in the Engg. specification.

12. If non - conformance is observed on sample drum **in any character, then inspection shall be carried out on all 100%.**

F. REFERENCE STANDARDS : (For The Indicated Standards Refer The Latest Version)

- | | |
|------------------------------|---|
| IS 9968 /
(Part 1) | : Specification for Elastomeric insulated cables (Heavy Duty)for working Voltages upto and including 1100V. |
| IS 3975 | : Mild Steel wires , strips and tapes for armouring cables. |
| IS 6380 | : Specification for Elastomeric insulation and sheath electric cables. |
| IS 8130 | : Conductors for insulator electric cables & Flexible cables. |
| IS 10810 | : Method of test for cables. |
| ASTM-D 2843 | : Standard test method for density of smoke from burning and discomposition of plastics. |

ASTM-D 2863	: Standard test method for Oxygen / temperature index test.	
IEC 332 / (Part 1)	: Test on Electric cables under fire conditions.	
IEC 754 / (Part 1)	: Test on Gases evolved during combustion of Electric cables (Part1) : Determination of that amount of Halogen acid gas evolved during the combustion of polymeric materials taken from cables.	
IEEE- 383	: Standard for type test class IE Electric cables , Filler splices & connection for Nuclear power generating stations.	
SS 424 14 75	: Svensk Standard - Flammability Testing.	
IS 613	: Copper Rods and Bars for Electrical Purposes .	



429-024

**PURCHASE / MM / BOI
ENQUIRY DEVIATION**

PAGE

1 OF 1

**SCHEDULE OF DEVIATION TO
BOI ENQUIRY NO:**

GEM/2021/B/1309960

DATE

25.06.2021

DESCRIPTION**MULTIPAIR SHIELDED, THERMOPLASTIC SHEATHED CABLE FOR FLAME
SCANNER SYSTEM OF COAL FIRED THERMAL POWER PLANT****SPECIFICATION****DATASHEET NO DS:TCI:158/STD REV. 03****QUALITY PLAN****QA:CI:STD:QP:28, REV. 04****DOCUMENT REFERENCE****BHEL ENQ. CALLED FOR****FIRM'S ALTERNATIVE OFFER**

CERTIFIED THAT OTHER THAN THE ABOVE DEVIATIONS, WE ARE ACCEPTING ALL THE OTHER
SPECIFICATIONS AND REQUIREMENTS IN FULL TO YOUR ENQUIRY.

STATION:

DATE:

SIGNATURE OF FIRM'S REPRESENTATIVE

FIRM SEAL

NOTE 1. Deviations should be taken only in the extreme case.

2. If necessary, use additional sheets with page control number.

ANNEXURE - A

TECHNO - COMMERCIAL TERMS AND CONDITIONS

Description of the Material:		
BHEL Tender No. & Date		
GENERAL INFORMATION		
The bidder has to keep track of any changes by viewing the addendum / Corrigendum's Issued by the Purchaser on time-to- time basis in the E-Procurement platform. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.		
Sl. No.	Terms and conditions	Vendor's confirmation
1	Firm Price: The quoted / finalised rates shall be Firm till execution of the supplies. Vendor has to quote price according to the requirement as detailed in the attached technical documents. Unless there is a change in technical specification from BHEL side, impact price will not be allowed. ➤ BHEL will finalize the rates through price bid opening. Hence, Bidders are requested to give their best prices at the first instant itself. ➤ In the event of the final L1 prices are not reasonable / acceptable to BHEL; BHEL may resort to short closure of this Tender. ➤ In case of more than one L1 bidders, BHEL will get fresh revised reduced price bids from all such L1 bidders & ranking will be decided based on these revised bids. The new rates quoted should be lower than their previous L1 rates. If L1 could not be decided by this process, ranking will be decided by draw of lots in the presence of all such L1 bidders Any pre-bid query, kindly contact: Mr. Kevin Ark Kumar, Manager/Materials Management/BOI Tel: 0431-2578109, email: kevin@bhel.in ; Mr. N Mohan, Asst./Engineer/Materials Management/BOI Tel: 0431-2577446, email: mohann@bhel.in and get your queries cleared before submitting the offer in EPS. Rates/ other price elements once quoted in the price bid BoQ Format online in the Enterprise Procurement System (EPS) cannot be changed after due date shall remain final.	Accepted / Not Accepted
2	The tender is floated as a Single Package.	Accepted
3	Delivery term: Main Items: F.O.R basis Inclusive of Packing, Forwarding, Freight & GST upto Destination (Project Site). Mandatory Spares: F.O.R basis Inclusive of Packing, Forwarding, Freight & GST upto destination (Trichy Stores). Insurance will in BHEL Scope.	Accepted / Not Accepted
4	Payment Terms: 100% payment will be released within ten (10) days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills unless otherwise specified in STC / ATC.	Accepted / Not Accepted
5	Techno-Commercial bids of vendors will be evaluated; however, the Price bid will be opened, subject to our customer's approval, else their offer will be rejected. Vendors shall submit credentials for taking up with customer, for their approval).	Noted
6	Liquidated damages: If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.	Accepted / Not Accepted
7	Guarantee / Warranty Period : Guarantee clause 18 months from the date of delivery or 12 months from the date of actual put in use; whichever is earlier.	Accepted / Not Accepted
8	Deviation in Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period. Their offer will be rejected.	Noted
9	Delivery Period: <u>03 Months</u> from manufacturing clearance. Vendor quoted delivery period shall include all activities i.e. manufacturing / production, Inspection, Packing, Forwarding, dispatch.	Accepted / Not Accepted
10	Validity: 120 days from techno commercial bid opening date	Accepted / Not Accepted

11	RISK PURCHASE: In case of abnormal delays (beyond the maximum late delivery period as per LD clause) or non-fulfilment of any other terms and conditions given in work order, BHEL may cancel the work order in full or part thereof, and may also make a contract of such work/service from elsewhere / alternative source at the risk and cost of the original contractor. BHEL will take all reasonable steps to complete the contract obligations from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract. Risk & cost clause, in line with conditions of contract may be invoked in any of the following cases: 1. Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution. 2. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. 3. Non completion of work / Non-supply by the contractor within scheduled completion/delivery period as per contract or as extended from time to time, for the reason attributable to the contractor. 4. Termination of contract on account of any other reason (s) attributable to contractor. 5. Assignment, transfer, subletting of contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL. 6. Non-compliance to any contractual condition or any other default attributable to contractor. Risk and Cost amount against balance work will be calculated as follows: Risk & Cost Amount= [(A-B) + (A x H/100)] Where, A= Value of Balance scope of Work/ Supply (*) as per rates of new contract B= Value of Balance scope of Work/ Supply (*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any. H = Overhead Factor to be taken as 5 In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero). *(Balance scope of work/ supply) Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities. Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities. Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions. However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose. NOTE: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount.	Accepted / Not Accepted
12	Implementation of GST 1. Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration no which should clearly mentioned in the offer. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer. 2. Supplier shall mention their GSTN registration number in all their invoices and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no., then the Invoice No which is linked/uploaded in GSTN network shall be clearly indicated), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc. 3. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code). 4. A declaration to the effect that all invoice particulars are/were uploaded in the GSTN network/ portal & all tax liability as per GST rules and regulations have been and will be discharged, shall be mentioned in the invoice. If not mentioned in the invoice, a separate declaration shall be submitted as per the requirement of BHEL. 5. All documents like Mill Test Certificate, LR copy, Guarantee/Warranty certificate, work completion certificate, any other document mentioned in PO, shall be sent along with the	Noted

	vehicle/consignment. For all consignments received within the calendar month, input credit will be availed within that month in line with monthly returns filing cycle. In case of any discrepancy in the document or non-submission of documents mentioned in the PO, then BHEL will not be able to accept or account the material, in such case availing of tax credit will be deferred to next month or so. 6. In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal) for the shortages or rejections in the suppliers, within the calendar month notified by BHEL. For any such delay in availing of tax credit for reasons attributable to supplier (as mentioned above), interest (calculated @ SBI Base Rate + 6%) along with penalty if any will be deducted for the delayed period i.e. from the month of receipt till the month tax credit is availed, from the running bills	
13	Document Submission: Along with the offer: 1. All the technical documents which have been attached along with our enquiry i.e Specification, Drgs, Data Sheet etc, signature to be endorsed on all pages with company seal Technical documents & Sub-delivery enquiry deviation format. 2. Filled-in/signed Annexure-A, Commercial terms and conditions. (Mandatory for Commercial evaluation) 3. Unpriced offer submitted through EPS shall contain minimum of above documents, without which offer is liable for rejection. 4. If MSE vendor, please attach Udyam Regn Certificate.	Submitted/ Not Submitted
14	Any deviation on technical/QP/packing requirements shall specifically be indicated in the “sub-delivery enquiry deviation format” attached along with the enquiry. Deviations / clarifications declared elsewhere will not be evaluated. <u>Also, any deviations from the commercial terms and conditions shall be clearly spelt out in this format itself.</u> Deviations / clarifications declared elsewhere will not be evaluated. Deviations taken, if any, by vendor as per our requirement above shall be clearly got accepted by BHEL in writing during enquiry stage itself. In the event of an order no deviations, unless accepted clearly by BHEL in writing during enquiry stage will be entertained and all other techno-commercial requirements will be binding on successful bidder and failure to execute the terms will lead to disciplinary action by BHEL against the said bidder.	Accepted / Not Accepted
15	Any pre-bid queries / clarification / document requirement etc. shall be asked within 3-4 days of floating tender in EPS. Tender due date extension will not be given without valid reason. Tender due date extension request has to be given before due date / time along-with a valid reason.	Noted
16	All the technical documents, if attached by BHEL along with the tender (Specification / Datasheet / Drawing / QP / Packing Procedure etc.) which are part of this e-tender, should bear your conformation / confirmation and sign with seal on each page. The same shall be scanned & attached as PDF files along with the offer for technical evaluation.	Technical Docs Submitted / Not Submitted
17	Technical / commercial clarification, if any, will be initiated through EPS / email. Vendor to respond to the clarifications within 3 working days. If the vendor fails to respond, even after three reminders, then the vendor will be considered as non-responsive and is liable to be rejected.	Noted
18	PO Acknowledgement: Within 7 days from the date of receipt of scanned PO copy through email.	Accepted
19	Document Submission after PO: Complete set of valid Documents as per BHEL format viz., Datasheet, GA drawing and QAP / RQP / VQP are to be submitted within 14 days from the date of receipt of PO (e-mail copy). If there is a delay in submission of valid documents within 14 days, the delay will be accounted for the calculation of LD.	Accepted
20	Inspection notice period: Vendor shall raise inspection call to Third Party Inspection Agency / BHEL at least three working days, prior to the proposed date of inspection. Place shall be vendor Works.	Accepted
21	Vendor shall dispatch the consignment immediately after getting dispatch clearance from BHEL, subsequent delay will be accounted for calculation of LD.	Accepted
22	FORCE MAJEURE CLAUSE: If, at any time during the continuance of Contract the performance in whole or in part by either party of any obligations under the 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 therefor 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 the 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 contractor.	Accepted

23	Fraud Prevention Policy Suppliers involving in fraudulent practices or delayed supply (or) non-Supply will be dealt with provision as indicated in "Guidelines for Suspension of Business Dealings with Suppliers / Contractors" which is hosted in website www.bhel.com. The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com. 1.0 Integrity commitment, performance of the contract and punitive action thereof: 1.1 Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in transparent and fair manner, and with equity. 1.2 Commitment by Bidder / Supplier / Contractor: 1.2.1. The bidder / supplier / contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India. 1.2.2. The bidder / supplier / contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issues from time to time by Govt. of India / BHEL. 1.2.3. The bidder / supplier / contractor will perform / execute the contract as per the contract terms & Conditions and will not default without any reasonable cause, which causes loss of business / money / reputation, to BHEL. If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions.	Noted
24	Inspection & testing requirements shall be done as per approved vendor QP	Noted
25	Repair & replacements: Within the guarantee period vendor has to replace / rectify the defective/damaged items on free of cost within a reasonable time of reporting from our end. All incidental charges like freight, insurance and customs duty / GST are to vendor account only. The defective parts and components shall be collected by your Indian agent or / authorized person, only after completing the replacement / repairs. The defective parts / components will not be returned back to vendor works by us due to procedural problems.	Accepted
26	BHEL reserves the right to cancel / modify the tender, if the need so arises, without assigning any further notice or reason therefore.	Accepted
27	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/Region/Division 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 (the place from which the contract is issued). The cost of arbitration shall be borne as per the award of the Arbitrator. Subject to the arbitration in terms of Clause above, the Courts at TRICHY 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.	Noted
28	JURISDICTION: In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the aforesaid arbitration clause.	Noted

29	SECRECY OF CONFIDENTIAL INFORMATION: The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract. All the input details: transmittals and sample drawings supplied for preparation of drawings are confidential information of BHEL for specific purpose only. The contractor shall never pass on / part with the information to anybody and shall maintain the secrecy of the information. As soon as the bills are certified by BHEL, all the relevant drawing files shall be erased from PCs and shall not be made use under any circumstances. BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorised activity.	Noted
----	--	-------

By signing this Annexure, the vendor consents that the terms & conditions accepted, in this Annexure-A alone, shall be binding between BHEL and the Vendor; and no other terms quoted / mentioned, elsewhere in the Offer / Quotation will be considered / accepted by BHEL.