

<p><b>Bridge and Roof Co. (India) Limited</b>  (A Government of India Enterprise)  Kankaria Centre (5h Floor),  2/1, Russel Street, Kolkata – 700 071.  CIN : U27310WB1920GOI003601  Phone No.(91) (033) 2217-2108/2274/2275/2276  2217-4053/4054/4056/4469 to 73  Fax: (91) (033) 2217-2106/2217-4519  E-mail: commercial@bridgeroof.co.in  Website: <a href="http://www.bridgeroof.co.in">http://www.bridgeroof.co.in</a></p>	
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**NOTICE INVITING TENDER (NIT)**

**No. MAT(P)/ERE/40091/ INSTRUMENT AND SIGNAL CABLES/ 576 DATE :02.01.2025**

**“Online” Bid(S) / Offer(s) in Two - Part System are Invited by Bridge and Roof Co. (India) Limited Through GEM Portal for , DESIGN, ENGINEERING, MANUFACTURING, INSPECTION & TESTING AT MANUFACTURER’S WORKS, PACKING AND FORWARDING FROM MANUFACTURER’S PLACE OF DISPATCH & DELIVERY AT PROJECT SITE OF INSTRUMENT AND SIGNAL CABLES FOR OUR COMPOSITE WORKS project site FOR IMPORT TERMINAL AND DESPATCH TERMINAL , (COIT) NRL AT PARADIP, ODISHA [0/40091]**

In case bidder(s) are interested for the above work, please submit lowest competitive tender completed in all respect, strictly in the manner described in the clauses titled **“Instruction To Tenderer”** and **“Submission of Tender”** of ANNEXURE-B, based on the same Terms and Conditions, Specifications, Procedures etc. as stipulated as defined in this NIT and in the various Annexures and Sections of the TD without taking any deviations.

Notwithstanding anything contained in the NIT and TD, we reserve the absolute right to –  
Reject or accept or cancel any or all Tenders received against this NIT, (ii) Cancel the NIT and (iv) Issue a fresh Tenders at our sole discretion without assigning any reasons whatsoever thereof and our decision in this regard shall be final and binding upon supplier and no correspondences/ communications in this regard shall be entertained by us (BANDR).

A.0	<b><u>TENDER DOCUMENT(TD) :-</u></b>	
1.	Bidder’s Information Sheet :	ANNEXURE - I
2.	Techno-Commercial Questionnaire Sheet :	ANNEXURE - II
3.	Qualifying Criteria/Vendor List	<b>ANNEXURE-A</b>
4.	General Guidance / Instructions to Tenderer :	ANNEXURE – B
5.	Terms and Conditions :	ANNEXURE – B
6.	Technical Specifications / Drawings / Documents, Scope of work (Appendix-A) :	ANNEXURE – C
7.	Format for Security-cum-Performance Bank Guarantee (SPBG)	ANNEXURE – D
8.	Format for Bank Guarantee in lieu of Earnest Money Deposit (EMD)	<b>NOT APPLICABLE</b>
9.	Format for Affidavit Cum Declaration	ANNEXURE – F
10.	Format for Input Tax Credit	ANNEXURE – G
11.	Format for Integrity Pact	<b>NOT APPLICABLE</b>
12.	Specifications and Schedule of Quantities and Rates (SOQR) :	‘B.O.Q’

Bid documents are to be submitted through GeM (Govt. e-market Place) Portal (<https://gem.gov.in>) within the prescribed date & time mentioned in portal. Indian Vendors having valid registration with GeM may participate in Tender as per instructions, guidelines framed herein and in compliance of the Terms & Conditions & Technical Specifications / Drawings / Documents etc. mentioned/enclosed elsewhere of NIT.

Incomplete form or non-submission of documents to verify details may results into rejection of offer. Tenderer are also advised to regularly go through GeM portal website. All corrigendum / amendments etc., if any, will be notified on this portal only.

**This Notice Inviting Tender (NIT) along with all Annexure (s) as ATC (ADDITIONAL TERMS & CONDITION ) shall supersedes the General Terms and condition of GeM portal .Incase of any ambiquity between ATC and General Terms & condition of GEM ,ATC shall prevail.**

### SCHEDULE OF TENDER

1.	Description of Item(s) :	“DESIGN, ENGINEERING, MANUFACTURING, INSPECTION & TESTING AT MANUFACTURER’S WORKS, PACKING AND FORWARDING FROM MANUFACTURER’S PLACE OF DISPATCH & DELIVERY AT PROJECT SITE OF <b>INSTRUMENT AND SIGNAL CABLES</b> FOR OUR COMPOSITE WORKS project site FOR IMPORT TERMINAL AND DESPATCH TERMINAL , (COIT) NRL AT PARADIP, ODISHA [0/40091]
2.	Quantity (Approx) :	AS PER SOQR
3.	Tender Type :	LIMITED
4.	Tender Category :	Goods
5.	Tender Classification :	MANUFACTURING , TESTING ,SUPPLY & DELIVERY AT PROJECT SITE
6.	Mode of submission of Bids :	Online through GeM (Govt. e-Market Place) Portal: <a href="https://gem.gov.in">https://gem.gov.in</a> only
7.	Tender Cost :	NIL
8.	EMD (Earnest Money Deposit) :	NOT APPLICABLE
9.	Validity of Offer :	120 days from the date of opening of tender.
10.	Consignee’s Address :	THE ENGINEER IN CHARGE, BRIDGE AND ROOF CO. INDIA LTD NRL COIT COMPOSITE PROJECT SITE VILLAGE-SANDHAKAND NEAR PARADIP PORT, PARADIP, DIST - JAGATSINGHPUR, ODISHA – 754142

For BRIDGE & ROOF CO. (INDIA) LTD.

( M TEWARI )  
DY. GENERAL MANAGER (COMMERCIAL) -II

**BIDDER'S INFORMATION SHEET**

[ Tenderers are required to print this on their Company's Letter head and sign, stamp before uploading in Part – I ]

1.	NAME OF THE COMPANY / FIRM	:	
2.	COMMUNICATION ADDRESS	:	
a.	TELEPHONE NO.	:	
b.	FAX NO.	:	
c.	E-MAIL ID.	:	
d.	CONTACT PERSON WITH MOBILE NO. & EMAIL-ID ETC. :	:	
3.	CONSTITUTIONAL STATUS [ I. E. PRIVATE LIMITED / PUBLIC SECTOR / SOLE PROPRIETOR / PARTNERSHIP FIRM ]	:	
4.	IF YOU ARE A DGS&D / NSIC / SSIC / MSME REGISTERED PARTY,  IF YES, THEN PLEASE SUBMIT <u>NOTARIZED COPY OF THE VALID REGISTRATION CERTIFICATE</u> .	:	i) REGISTERED WITH – ii) REGISTRATION CERTIFICATE / DOC. REF. NO. & DATE –  iii) VALIDITY UPTO -  iv) UAM No. -
5.	PLEASE SUBMIT <u>NOTARIZED COPY OF THE AFFIDAVIT CUM DECLARATION AS PER 'ANNEXURE - F'</u>  [FOR DGS&D / NSIC /MSME REGISTERED PARTIES ONLY]	:	SUBMITTED / NOT SUBMITTED  WHEATHER NOTORIZED : YES / NO (Please strike out which is not applicable)
6.	<u>'TENDER FEE' AND 'EMD'</u> :	:	SUBMITTED / NOT SUBMITTED
7.	PLEASE MENTION PLACE OF 'MANUFACTURING' AND 'DESPATCH'.	:	
8.	PLEASE PROVIDE THE FOLLOWING INFORMATION :-	:	
	HSN CODE OF THE MATERIAL -	:	
	CO'S GSTIN / PROVISIONAL ID -	:	
	CO'S PAN NO. -	:	
	CO'S CIN NO. -	:	

**TECHNO-COMMERCIAL QUESTIONNAIRE SHEET**

THIS SHEET IS TO BE FILLED BY BIDDER AND SUBMITTED ALONGWITH THE TECHNO-COMMERCIAL OFFER, OTHERWISE THE OFFER WILL BE TREATED AS 'INCOMPLETE' :-

SL. NO.	CHECK LIST POINTS	BIDDER'S CONFIRMATION
1.	CONFIRM THAT YOU HAVE UPLOADED YOUR OFFER ONLINE IN 'TWO PART BID SYSTEM' AS PER CL. NO. 3.00 OF 'ANNEXURE – B' OF NIT.	
2.	CONFIRM THAT YOU HAVE SUBMITTED NOTORIZED DECLARATION AND MSME 'DOCUMENTS'.	
3.	CONFIRM THAT ONE SET OF COMPLETE TENDER DOCUMENT DULY STAMPED AND SIGNED HAS BEEN UPLOADED ALONGWITH THE TECHNO-COMMERCIAL OFFER (PART-I)	
4.	CONFIRM ACCEPTANCE OF ALL TECHNICAL SPECIFICATIONS, STANDARDS, DOCUMENTS & SCOPE OF SUPPLY AS PER TENDER ENQUIRY.	
5.	PLEASE CONFIRM THAT YOU HAVE NOT TAKEN ANY DEVIATION IN TENDER TERMS & CONDITIONS.	
6.	<b>CONFIRM YOUR ACCEPTANCE ON THE FOLLOWING CLAUSES. [ANY DEVIATION MAY LEAD TO REJECTION OF THE OFFER ]</b>	
	a) SECURITY-CUM- PERFORMANCE GUARANTEE ANNEXURE – B)	
	b) LIQUIDATED DAMAGE (ANNEXURE – B)	
	c) GUARANTEE/DEFECT LIABILITY PERIOD (ANNEXURE –B)	
	d) TERMS OF PAYMENT (ANNEXURE – B)	
	e) INSPECTION & TEST (ANNEXURE –B)	
	f) DELIVERY SCHEDULE (ANNEXURE – B)	
7.	CONFIRM THAT YOU HAVE QUOTED/SPECIFIED PRICE / RATE AGAINST EACH OF THE FOLLOWING COMPONENTS, AS MENTIONED IN SOQR :	
a)	'PACKING & FORWARDING' CHARGE (EXCLUDING GST)	INCLUDED
b)	'FREIGHT CHARGE' FOR DOOR DELIVERY (EXCLUDING GST)	INCLUDED
c)	'TRANSIT INSURANCE' CHARGE (EXCLUDING GST)	INCLUDED
e)	'GOODS AND SERVICE TAX [GST]'	INCLUDED
8.	PLEASE NOTE THAT YOU HAVE TO SPECIFY FIRM PRICE AGAINST THE ABOVE COMPONENTS IN BOQ/PRICE PART. BLANK FIELD(S) IN UPLOADED 'BOQ SHEET 'WILL INDICATE THAT THE SAME IS/ARE EITHER 'NOT APPLICABLE' OR 'INCLUDED' IN QUOTED PRICE OR TO BIDDER'S ACCOUNT.	
9.	CONFIRM THAT YOUR QUOTED PRICES ARE FIRM TILL COMPLETION OF CONTRACT.	
10.	CONFIRM THAT YOU HAVE SUBMITTED COPY OF 'GST REGISTRATION' CERTIFICATE.	
11.	PLEASE MENTION PLACE OF 'MANUFACTURING' AND 'DESPATCH'.	
12.	PLEASE NOTE THAT OFFER WITH DEVIATION IN TENDER TERMS & CONDITIONS /TECHNICAL SPECIFICATION MAY BE LIABLE FOR REJECTION.	

(SIGNATURE OF BIDDER WITH STAMP)

**ANNEXURE - A**  
**NAME OF CLIENT APPROVED VENDOR(s)**

NAME OF VENDOR FOR PARTICIPATING IN THE TENDER FOR "DESIGN, ENGINEERING, MANUFACTURING, INSPECTION & TESTING AT MANUFACTURER'S WORKS, PACKING AND FORWARDING FROM MANUFACTURER'S PLACE OF DISPATCH & DELIVERY AT PROJECT SITE OF **INSTRUMENT AND SIGNAL CABLES** FOR OUR COMPOSITE WORKS PROJECT SITE FOR IMPORT TERMINAL AND DESPATCH TERMINAL , (COIT) NRL AT PARADIP, ODISHA [0/40091]

1.

**NAME OF CLIENT( /EIL/NRL) APPROVED VENDORS FOR PARTICIPATION IN TENDER**

- 1) LEONI CABLE SOLUTIONS (INDIA) PVT LTD
- 2) KEI INDUSTRIES LIMITED
- 3) DELTON CABLES LTD
- 4) CORDS CABLE INDUSTRIES LTD
- 5) T C COMMUNICATION PVT LTD
- 6) ASSOCITED CABLE (P) LTD
- 7) KEC INTERNATIONAL LTD, MYSORE
- 8) SUYOG ELECTRICALS LTD
- 9) THERMO CABLE LTD
- 10) ELKAY TELELINKS LTD
- 11) HAVELS INDIA LTD
- 12) LAPP INDIA PVT LTD
- 13) POLYCAB INDIA LIMITED
- 14) TEMSENS INSTRUMENTS INDIA PVT LTD
- 15) PARAMOUNT COMMUNICATION LTD
- 16) ASSOCITED FLEXIBLE & WIRES (P) LTD
- 17) LKB ENGINEERING PVT LTD
- 18) UDEY PYROCABLES PVT LTD

**[ONLY INDIAN VENDOR(s) MENTIONED ABOVE APPROVED BY EIL ARE ONLY ALLOWED TO PARTICIPATE IN THIS TENDER NO OTHER MANUFACTURER (S),TRADER (S),DISTRIBUTORS/STOCKIEST OFFER/BID SHALL BE ACCEPTED.]**

2.0 **PURCHASE PREFERENCE TO MAKE IN INDIA (MII) :-**

In line with Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017, 28.05.2018, 04.06.2020 & 18.05.2023 and subsequent orders issued by the respective Nodal Ministry, Govt. of India by way of providing purchase preference, BandR has implemented "Purchase Preference Policy". The "Purchase Preference" is applicable for the "Local Supplier" for the items / services covered in the tender subject to the following terms & conditions :

BandR reserves right to consider Local supplier (i.e whose offered product or service meets the minimum local content of tender) in case, emerged L1 bidder is Non Local supplier & quoted prices of Local suppliers are in the bracket of L1 + 20% and if they agree to match with L1 prices as per the "Public Procurement (Preference to Make in India) order 2017 of GOI, Dept of DIPP".

**1. DEFINITIONS:**

**'Local content'** means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

**'Class-I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under said Order

**'Class-II local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.

**'Non-Local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this Order.

**'L 1'** means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation

**'Margin of purchase preference'** means the maximum extent to which the price quoted by a "(Class-I local) supplier" may be above the L 1 price for the purpose of purchase preference.

**'Procuring entity'** means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

**'Works'** means all works as per Rule 130 of GFR- 2017, and will also include turnkey works '.

## **2. ELIGIBILITY OF 'CLASS-I LOCAL SUPPLIER' / 'CLASS-II LOCAL SUPPLIER' / 'NON-LOCAL SUPPLIERS' FOR DIFFERENT TYPES OF PROCUREMENT**

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only '**Class-I local supplier**', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) In procurement of all goods, services or works, not covered by 2(a) above, and with estimated value of purchases less than Rs.200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global Tender Enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure. Only '**Class-I local supplier**' and '**Class-II local supplier**', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global Tender Enquiry has been issued. In Global Tender Enquiries, '**Non-local suppliers**' shall also be eligible to bid along with '**Class-I local suppliers**' and '**Class-II local suppliers**'.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

## **3A. PURCHASE PREFERENCE :**

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to '**Class-I local supplier**' in procurements undertaken by procuring entities in the manner specified here under.

(b) In the procurements of goods or works, which are covered by para 2(b) above and **which are divisible in nature**, the '**Class-I local supplier**' shall get purchase preference over '**Class-II local supplier**' as well as '**Non-local supplier**', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L 1. If L 1 is '**Class-I local supplier**', the contract for full quantity will be awarded to L 1.

ii. If L 1 bid is not a '**Class-I local supplier**', 50% of the order quantity shall be awarded to L 1. Thereafter, the lowest bidder among the '**Class-I local supplier**' will be invited to match the L 1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such '**Class-I local supplier**' subject to matching the L 1 price, In case such lowest eligible '**Class-I local supplier**' fails to match the L 1 price or accepts less than the offered quantity, the next higher '**Class-I local supplier**' within the margin of purchase preference shall be invited to match the L 1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L 1 bidder.

(c) In the procurements of goods or works, which are covered by para 2(b) above and **which are not**

**divisible in nature**, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L 1. If L 1 is 'Class-I local supplier', the contract will be awarded to L 1.
- ii. If L 1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L 1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L 1 price.
- iii. In case such lowest eligible 'Class-I local supplier' fails to match the L 1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L 1 price and so on and contract shall be awarded accordingly, in case none of the 'Class-I local supplier' within the margin of purchase preference matches the L 1 price, the contract may be awarded to the L 1 bidder.

**(d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by**

**procuring entities.**

**3B. APPLICABILITY IN TENDERS WHERE CONTRACT IS TO BE AWARDED TO MULTIPLE BIDDERS:**

In tenders where contract is awarded to multiple bidders subject to matching L1 rates or otherwise, the "Class-I local supplier" shall get purchase preference over 'Class-II local supplier' as well as "Non-local supplier" as per following procedure:

- (a) In case there is sufficient local capacity and competition for the item to be procured as notified by the nodal Ministry, only Class-I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class-I local suppliers'.
- (b) In other cases, 'Class-I local suppliers' and 'Non local suppliers' may also participate in the bidding process along with " Class-I local suppliers' as per provisions of this Order.
- (c) If 'Class-I local suppliers' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class-I local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class-I local suppliers' over 'Class-II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class-I local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.
- (d) First purchase preference has to be given to the lowest quoting 'Class-I local suppliers', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local suppliers', does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local suppliers', failing within 20% margin of purchase preference, and so on.
- (e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local suppliers' within the broad policy guidelines stipulated in Sub-paras above.

**1. EXEMPTION OF SMALL PURCHASES:**

Procurements where the estimated value to be procured is less than Rs.5 Lakh shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.

**Note: Sl. No. 3B (e) & 4 mentioned above will not be included in tenders as it is only for internal**

guidance / approval.

**2. MARGIN OF PURCHASE PREFERENCE:**

The margin of purchase preference shall be 20%

**3. VERIFICATION OF LOCAL CONTENT:**

- a) The 'Class-I local suppliers' / 'Class-II local suppliers' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local suppliers' / 'Class-II local suppliers'.

In this connection, such bidders shall furnish following undertaking from the manufacturer(s) on Manufacturer's letter head along with their techno-commercial bid. The undertaking shall become a part of the contract :

"We \_\_\_\_\_ (Name of Manufacturer) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. \_\_\_\_\_ (to be filled as notified in tender as well as the said policy) for claiming purchase preference linked with Local Contents under the Govt. Policy against under tender no. \_\_\_\_\_."

- b) In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local suppliers' / 'Class-II local suppliers' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost account or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

In this connection, such bidders shall furnish following undertaking shall be supported by the following certificate from Statutory Auditor engaged by the bidder, on the letter head of such Statutory Auditor (as per the provisions of the aforesaid policy):

"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 tender as well as the said policy) quoted vide offer No. \_\_\_\_\_ dated \_\_\_\_\_ against the tender No. \_\_\_\_\_ by M/s \_\_\_\_\_ (Name of the bidder)."

- c) Local Suppliers must note that once the declaration / certification is committed by them at tender submission stage, the same cannot be altered at technical negotiation stage or after award of contract otherwise would be treated / considered as false declaration by bidder. If it is identified that there is difference in price received & declaration made and local content is now not meeting the specified tender requirement (i.e. only on the quoted price without any loading) then such case is to be processed without any purchase preference as Non-Local Supplier

**4. IN CASE OF PARTICIPATION OF MSE AND LOCAL SUPPLIER AGAINST A SAME TENDER,**

In case of participation of MSE and Local Supplier against a same tender, office memorandum dated 18.05.2023 shall be applicable Bidders are not to be allowed to change their status from MSE to Local supplier & visa versa

**5. IN CASE OF PARTICIPATION OF BIDDER FROM COUNTRIES WHICH SHARES A LAND BORDER WITH INDIA**

Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services / non consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority (as per OM dated 23.07.2020 issued by Ministry of Finance), relevant declaration format is enclosed as Annexure -1.

**ANNEXURE - 1**

**COMPLIANCE CERTIFICATE REGARDING BIDDERS FROM COUNTRIES WHICH SHARES A LAND BORDER WITH INDIA**

(Submitted on Bidder's Letter Head)

- a. The bidder, (Name of the bidder) is not from a country which shares a land border with India;(or)



The bidder, (Name of the bidder) is from a country, (Name of the Country) which shares a land border with India and are registered with the Competent Authority. Certificate of registration is attached with the bid;

(or)

The bidder, (Name of the bidder) is from a country, (Name of the Country) which shares a land border with India and Government of India has extended lines of credit or is engaged in developmental projects in this country, (Name of the Country) and hence do not require any separate registration for participation in this tender.

- b. I have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached).
- c. I have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub- contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached].

(or)

Any Bidder (including an Indian Bidder) who has a specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non consultancy services) or works (including Turnkey Projects) only if the bidder is registered with the Competent Authority, **specified in Annexure-2 which is mentioned here:**

## ANNEXURE-2

## FOR LAND SHARE BORDER

### Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this order shall be/ continue to be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)\*. [This Committee was already constituted under Order (Public Procurement) No.1].
- B. The Registration Committee shall have the following members\*:
  - i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
  - ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
  - iii. Any other officer whose presence is deemed necessary by the Chairman of the committee.
  - iv. With effect from 01.04.2023, an officer (ordinarily not below the rank of Joint Secretary) representing the National Security Council Secretariat.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as covered by the Order.
- D. On receipt of an application seeking registration from a bidder covered by Para 2 and 3 of this order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.

- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by the Central Government and its bodies specified in para 6 of this order, but also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.
- H. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.
- I. For national security reasons, the Competent Authority shall not be required to give reasons for rejection/cancellation of registration of a bidder.

[\*Note:

- (i) In respect of application of the Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government. However, the requirement of political and security clearance as per para D shall remain and no registration shall be granted without such clearance.
- (ii) Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

Details of Vendor's authorized representative

Signature:

Name:

Stamp:

**Fraud Prevention Policy of Bridge And Roof Co. (India) Ltd. (hereinafter referred to as B AND R):**

Everyone may take a note that a "Fraud Prevention Policy" is being followed at B AND R, which provides a system for prevention/ detection/ reporting of any fraud. It also forbids everyone from involvement in any fraudulent activity and that, where any fraudulent activity is suspected by any one, the matter must be reported to the NODAL OFFICER, as per details below as soon as he/she comes to know of any fraud or suspected fraud or notice any other fraudulent activity. Anonymous/Pseudonymous complaints received, if not supported by the relevant evidence, may not be acted upon. Utmost confidentiality shall be maintained regarding identity of the complainant. All reports of fraud or suspected fraud shall be handled and shall be co-ordinated by the Nodal Officer. A copy of the 'Fraud Prevention Policy' is available on the official web-site of B AND R. The e-mail ID of the Nodal Officer: [nodalofficerfpp@bridgeroof.co.in](mailto:nodalofficerfpp@bridgeroof.co.in) and postal address is.

Nodal Officer under Fraud Prevention Policy,  
Bridge And Roof Co.(I) Limited,  
'Kankaria Centre', 4th & 5th Floor,  
2/1, Russel Street, Kolkata-700 071"

1.00

GENERAL TERMS AND CONDITIONS

1.1. DEFINITIONS AND INTERPRETATIONS

In the document, as hereinafter defined, the following words and expressions shall have the meaning as under :

- 1.1.1 The **'purchaser'** shall mean Bridge & Roof Co. (India) Ltd.(BANDR) having its registered office at Kankaria Centre, 5<sup>th</sup> floor, 2/1, Russel Street, Kolkata-700071.
- 1.1.2 The **'Tender/ Offer'** shall mean the proposal submitted by the tenderer / Bidder in response to Purchaser's Notice of Invitation to this Tender (NIT).
- 1.1.3 The **"Chairman-Cum-Managing Director"** shall mean the Chairman-Cum-Managing Director, Bridge & Roof Co. (India) Ltd.
- 1.1.4 The **"Supplier/Vendor"** shall mean the person(s), firm or company (hereinafter called "tenderer") whose tender has been accepted by the purchaser and includes their legal representatives, successors and permitted assignees.
- 1.1.5 The **"Project Manager/Resident Manager / Engineer-In-Charge"** shall mean the person(s) as nominated from time to time by the Purchaser to act for and on behalf of the Purchaser at the project site.
- 1.1.6 The **'Supply'** shall mean and include all material inputs and work to be executed in accordance with the order or part thereof as the case may be and shall include all extras, addition, altered or substituted works as required for the purpose of the supply order.
- 1.1.7 **"Specification"** shall mean all directions, various technical specification, provisions and requirements attached to this document/order, which pertain to the method and manner of performing the supply to the quantities and qualities thereof as may be amplified or modified by the purchaser during the performance of the order. it shall also include the latest edition including all agenda/corrigenda of relevant standard specifications and other relevant codes. in case any dispute, the decision of the 'purchaser' will be final & binding upon the suppliers.  
**"Consultant"** shall mean any consultant nominated by the purchaser or by the Purchaser's Client, i.e. **M/s. EIL**
- 1.1.8 **EIL**
- 1.1.9 **'Purchaser's Client / Owner'** mean client of Purchaser, i.e. **M/s. Numaligarh Refinery Limited (NRL)** at Paradip.
- 1.1.10 **"Project site"** shall mean the site of work for composite works at Crude Oil Import Terminal (COIT) project of Numaligarh Refinery Limited (NRL) at Paradip.
- 1.1.11 The **"Period of liability"** in relation to the order means the specified period from the date of issue of completion certificate by BANDR.
- 1.1.12 The **"Appointing Authority"** for the purpose of arbitration shall be the Chairman-and-Managing Director or any other persons as designated by him.
- 1.1.13 The **'Alteration/Variation/Amended Order'** means an order given in writing by the purchaser to effect additions/alterations to or deletions from the scope of work.
- 1.1.14 **"Letter of Intent(LOI)"** shall mean an intimation by a letter to tenderer that the tender has been accepted in accordance with the provisions contained therein and shall be issued by the Chairman-Cum-Managing Director or his authorized representative.
- 1.1.15 **"Purchase Order(P.O.)"** shall mean a written purchase order issued by the Chairman-Cum-Managing Director or his authorized representative, awarding the work wholly or partly to the successful tenderer(s) for execution as per mutually agreed terms & conditions.
- 1.1.16 **"TPIA"** shall mean Third Party Inspection Agency

2.00 **INSTRUCTION TO TENDERER**

“Submission of Tender & General Instruction” shall be read in conjunction with the General Commercial Terms and Conditions, specifications and any other documents forming part of this Tender Document wherever the context so requires.

Notwithstanding the sub-division of the documents into the separate sections, every part of each shall be deemed to be supplementary to and complementary to every other part and shall be read with the document so far as it may be practicable to do so. Wherever it is mentioned in the specifications that the supplier shall perform certain work or provide certain facilities, it is understood that the supplier shall do so at their cost.

3.00 **SUBMISSION OF TENDER**

3.1 Tenderer willing to take part in the process of online e-tendering will have to be enrolled & registered with the Government e-Procurement System through logging on to <https://gem.gov.in/>. Tenderer is to click on the link of online tender as given on the web portal.

Tender shall be submitted online only at GeM website: <https://mkp.gem.gov.in>. **Manual submission of Tender shall not be accepted.** Tenderer are advised to follow the instructions provided in the document for the e-submission of tender online through the GeM Portal for e-Procurement before proceeding with the submission.

Tenderer shall be required to upload/ submit their offer followed by various steps as per instruction given in GeM Portal.

Tenderer shall be required to upload/ submit their offer / bid in 2(two) separate Parts : (a) Techno-commercial Bid (Part – I) & (b) Price Part ( Part - II).

Bid shall be not modified or withdrawn after the due date of bid submission. Withdrawal / backout / impairing /undue modification of bid within it’s validity period, shall results in rejection of offer and may also lead to holiday/black listing, as shall be deemed fit and forfeit the EMD (If any)

Techno-commercial Bid & Price Part have to be uploaded/ submitted followed by various steps as per instruction given in GeM Portal.

Bid / Offer submitted along with all requisite documents will be evaluated by the Technical Committee of BANDR at its sole discretion and Techno-commercially recommended bidders will be intimated only for the opening of price part at specified date and time which will be intimated through GeM portal.

Tenderer are requested to submit their bid / offer through GeM to the Tender inviting Authority (TIA)[General MANAGER (commercial)] well before the submission end dated and time (as per server system clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of offer online by tenderer(s) at the eleventh hour.

3.2 **Part – I : Technical and Commercial Unpriced Part shall comprises of following documents to be uploaded in GeM Portal :**

3.3 **PART – I TECHNICAL AND COMMERCIAL UNPRICED PART**

1. One set of the Tender Documents duly signed & stamped on each page.
2. Covering letter in your co’s letter head.
3. Power of Attorney/Authorization in favour of person signing the Bid.
4. Techno-commercial Questionnaire Sheet & Bidder’s Information sheet duly filled, stamped & signed.
5. Process Compliance & Affidavit Cum Declaration duly executed in prescribed format.
6. Documents as per ‘Bidder Qualification Criteria’ clause of NIT.
7. Non Compliance / Deviation list, if any.
8. Catalogue / Technical Leaflet etc.
9. Unpriced copy of Price Bid / SOQR duly mentioning as ‘quoted’ against each component (Part – II).

Incomplete documentation may be liable for rejection of the bid.

**Part – I : to be submitted in Original at our Kolkata Office ; Address to “General Manager (COMMERCIAL), Bridge and Roof Co.(India) Ltd., “Kankaria Centre” 5th Floor, 2 /1 - Russel Street, Kolkata - 700 071” within last Date of submission of bid:**

**Priced Bid :**

Bidder shall quote their price as per BOQ in GeM portal and Quoted price shall be inclusive of Basic / Ex-works / Ex - Godown Prices, Taxes & Duties (GST), Packing & Forwarding, Freight, Transit Insurance, Octroi / Entry tax etc. as per SOQR.

Bidder shall quote their price in 'BOQ' and the same should be uploaded strictly as per the format available with the tender failing which the offer may liable for rejection (renaming or changing format of BOQ sheet will not be accepted by system).

Quoted price shall be considered "F.O.R. BANDR's Project Site Basis".

Hard copy of price bid (quoted) shall not be submitted , bidder shall quote their price in specific place in GEM portal only

4 **DUE DATE OF SUBMISSION:-LAST DATE OF BID SUBMISSION IN GEM : 18.01.2025**

The Technio-commercial Part of bid (mentioned in sl no.3.3 in sealed cover shall also be submitted within **18.01.2025 AT 4.00 P.M.**

5 **PURCHASER'S RIGHT TO REJECT TENDER:-**

The award of the order or rejection of the Tenderer's Offer and/or cancellation of the Tender will be made at the absolute discretion of Purchaser. The Purchaser reserves the right to accept or reject any or all tender(s) whether lowest or otherwise, without assigning any reason whatsoever thereof. A tenderer whose Tender is not accepted shall not be entitled to claim any cost, charges or expenses incidental to or incurred by him through or in connection with the preparation and submission of the Tender to the Purchaser. The Purchaser also reserves the absolute right to split up and award the order between two or more Tenderers distributing the total requirement as defined in the tender if any.

**Acceptance of vendor/supplier and their product shall be subject to acceptance by Purchaser's client and/or consultant. Accordingly Tenderer(s) whose offer is not acceptable to purchaser's client/consultant cannot be considered and shall be rejected by the Purchaser and no correspondences and claim etc. from Tenderer in pursuant to the tender shall be entertained by the purchaser under any circumstances whatsoever.**

The bidder is liable to be disqualified, even though they meet the qualifying criteria if they Made misleading or false representations, statements and attachments submitted in proff of the qualification requirements and /or deliberately gives wrong information /submit fake, false, fabricated, forged documents.

Record of poor performance with BandR 's previous contract such as abandoning the works, not properly completing the supply as well as execute order, inordinate delays in completion of supply, litigation history with BandR /NRL, or financial failures, a record of court cases with BANDR against earlier tender/ contracts etc.

**The bidder must provide any further details required for the review upon request from request from BandR , failure to comply with any request by BandR for such information shall result in rejection of their offer.**

**In any of above, BandR reserves the right to reject such tender at any stage or to cancel the contract if awarded and forfeit the earnest money due.**

**VALIDITY OF OFFER :**

6 The Tender submitted against this enquiry/tender document shall remain valid for acceptance for a period of **90 days** from the due date of receipt of tender.

The Tenderer/Vendor shall not be entitled before the said **90 days** without BANDR's consent in writing to revoke or cancel his tender given or any terms thereof.

7 **SECURITY-CUM-PERFORMANCE BANK GUARANTEE (SPBG)**

As security for proper and faithful fulfillment of the obligation under the order the supplier shall furnish to the purchaser a Security Deposit Cum Performance Guarantee equal to **10% of the total order value** excluding GST by Bank Draft payable to Bridge and Roof Co. (INDIA) Ltd., payable at Kolkata, India or in the Form of a Bank Guarantee as per BANDR's prescribed format (enclosed) from a Nationalized / Scheduled Bank in India within 15(fifteen) days from the date of receipt of P.O. The Bank Guarantee should be valid till end of Guarantee Period/Defect Liability period.

**The original of SPBG shall be submitted to GM(EPC)HEAD (SBU-VII) Kolkata office.**

**LIQUIDATED DAMAGE(LD) :**

- 8 If you fail to deliver the materials within the time schedule mutually agreed upon as specified in the order, then BANDR. at their sole discretion  
Shall recover from supplier an amount as **Liquidated Damage @ 0.5% per week** of delay subject to **maximum 5% of the total value** of undelivered portion of the order without GST.

AND/OR

Shall at the risk and cost of supplier and without prejudice to exercising BANDR's other right as per terms of order, terminate the order wholly or partly as the case may be and get it completed by themselves or reassign to other supplier(s) to complete.

- 9 **Earnest Money Deposit (EMD) – NOT APPLICABLE**

10. **FIRM PRICE**

Total price shall remain firm till the completion of supply at BANDR's Crude Oil Import Terminal (COIT) project of Numaligarh Refinery Limited (NRL) at Paradip. India basis & shall not attract any escalation due to any reasons whatsoever.

RATES / PRICES SHALL BE QUOTED IN INDIAN RUPEE.

11. **TAXES & DUTIES**

**Goods & Service Tax(GST):-**

The Tenderer / Bidder shall quote the prices confirming clearly the following components, to be paid extra. The Tendered / Bidder must have registration with the GST Authority. The GST as legally leviable & payable by the bidder under the provision of applicable law / act shall be paid by BANDR as per bidder's bill. The GST (i.e. SGST, CGST or IGST) amount shall be shown separately in Invoice and also submit proper Tax Invoice as per section 31 of CGST Act and Rule 46 OF CGST Rule, 2017 to get input tax credit by BANDR. If the Input Tax Credit is disallowed by authority due to any reason attributable to bidder, the same shall be recovered from Bidder's bill. The bidder shall also have to submit the relevant documents w.r.t. GST Registration and mentioning HSN / SAC Code to be applicable on the Items / materials, alongwith the Techno-commercial part of offer.

Road Permit / e-Way Bill (if required), shall be arranged by BANDR. You shall place requirement of necessary Road Permit/ e-Way Bill upon readiness of despatch along with Transporter's details (i.e. Address; From & To; Total distance in KM; LR No & Date; Driver's Name & License No., issued from; Vehicle No.; Vehicle type; Vehicle Owner's name & address; Nature of Transaction; Value including GST; HSN Code of material etc.), Invoice mentioning consignment value, GSTIN from you end, along with the Inspection Clearance prior to dispatch of material to **DGM (PROJECTS) PARADIP at our** . Crude Oil Import Terminal (COIT) project of Numaligarh Refinery Limited (NRL) at Paradip. **However, you may opt for generate e-way bill from your end also.**

GST-TDS @ 2% (two percent) shall be deducted from supplier's invoice on Basic Order value (i.e. landed price before GST) under GST Law w.e.f. 01.10.2018 as per Govt. Notification No. 50/2018-Central Tax dated 13.09.2018 for supply of taxable goods. TDS @1% for CGST & @ 1% for SGST or @ 2% for IGST shall be applicable, except exempted provision as stipulated in GST Law. Tax deducted at source shall be deposited to the Govt. and TDS certificate shall be issued to the supplier as per rules.

12 **TRANSIT INSURANCE**

The supplier shall be solely responsible for safe delivery of all materials under the order and shall take necessary insurance policy for 110% value covering all risks during transit. **The cost of Transit Insurance shall be included in the quoted price.**

In case of any damage, loss, pilferage etc. of materials during supply, the supplier will arrange prompt replacement so as to ensure that overall delivery schedule is not hampered. All claims in the said policy shall be lodged and pursued by the supplier and purchaser shall not have any liability in this regard.

13. **DELIVERY SCHEDULE :**

All materials complete in all respect shall be safely delivered at Consignee's address by road transport on door delivery basis within **45(FORTY FIVE) days** from the date of received of Approved DATASHEET /QAP / Drawing and Manufacturing Clearance.

- 14 **CONSIGNEE'S ADDRESS:-**  
**Place of Supply / Consignee's Address:-**  
The Engineer In Charge,  
BRIDGE AND ROOF CO. INDIA LTD  
NRL COIT COMPOSITE PROJECT SITE  
VILLAGE-SANDHAKAND  
NEAR PARADIP PORT, PARADIP,  
DIST - JAGATSINGHPUR,  
ODISHA – 754142  
**PACKING, FORWARDING CHARGE:**
- Billing Address:-**  
BRIDGE AND ROOF CO. INDIA LTD.,  
2<sup>ND</sup> FLOOR, OCHC COMPLEX,  
NEAR RAM MANDIR, JANPATH,  
BHUBANESWAR, KHORDHA, ODISHA, 751001  
GSTIN:21AABC3166E1ZB  
STATE CODE: 21
- 15 The Supplier shall dispatch the materials at consignee's address properly in roadworthy packing as applicable to ensure that there is no damage to the materials during loading/unloading / storing and transportation. **The price(s) shall be included in quoted price .**  
**Freight Charges:-**
- 16 Supplier shall delivered the materials at Place of supply / consignee's address on 'door delivery' basis and Freight Charges shall be shown separately in the Invoice excluding GST on Freight charges. **Freight charges shall be included in quoted price.**
17. **MODE OF DESPATCH**  
All materials shall be delivered within time to the consignee's address specified in clause no. 14 by road on "Door delivery basis".
- 18 **WARRANTY/DEFECT LIABILITY PERIOD ::**  
All materials shall be supplied strictly in accordance with the specification, sizes, quantities stated in the order/tender. no deviation from such specification or alternations of these conditions shall be made without the written consent of the purchaser. the comprehensive warranty period (defect liability period), i.e. including all preventive and breakdown maintenance spares and all services, shall be WITHIN A PERIOD OF 12 (TWELVE) MONTHS FROM THE DATE OF COMMISSIONING OR 18(EIGHTEEN) MONTHS FROM THE DATE OF LAST SUPPLY WHICHEVER IS EARLIER , The above guarantee / warrantee (defect liability period) will be without prejudice to the certificate of inspection by third party inspection agency (If any) or materials receipt note issued by the site- in-charge in respect of the materials. During guarantee / warrantee (defect liability) period all the charges of the spare parts, visits, consumables and any other charges shall be borne by supplier. Supplier shall maintain the entire system without any extra cost to BANDR.
- 19 **TERMS OF PAYMENT:**  
The Payment shall be made to the supplier from our Project Site through RTGS/E-payment mode in the following manner. successful bidder shall intimate their bank's details for such e-payment. :  
100% Payment shall be made within 45 Days against receipt of materials at site in good condition and submission of documents in duplicate viz. commercial invoice , challan duly signed by BANDR representative project site for satisfactory receipt of materials, packing list, test certificates, guarantee certificate, copy of SPBG, inspection certificates / inspection release note duly endorsed by TPIA, transit insurance certificate etc. However payment shall be made after getting corresponding payment from BANDR Client.

20 **Inspection and Testing :**

- (a) All materials shall be inspected by any of EIL's approved third party inspection agency (viz. **SGS/CEIL / LRIS / BV / TUV SUD/TUV INDIA/IR CLASS/TUV RHEINLAND/VCS**) as per approved QAP, Datasheets, drawings etc.. Engagement of approved third party inspection agency (TPIA) shall be in bidder's scope and bidder shall consider/quote against TPI charges in BOQ..
- (b) Supplier is to submit their 'QAP', 'Data sheet', 'Drawing' etc. in line to our technical documents enclosed in 'Annexure-G' of NIT for our approval within 10 days after receipt of LOI / PO.
- (c) **Data sheets, Drawings, QAP etc. of the successful bidder(s) shall be forwarded to M/s EIL during post order stage and supplier shall incorporate the comments of EIL (if any) without any extra cost implication to BANDR**
- (d) Supplier shall make all necessary arrangement for each inspection and shall provide all necessary facilities to carry out stage inspection / final inspection and testing of the finished products
- (e) TPIA /BANDR /EIL shall have the right of access to the supplier's works at all reasonable time to inspect the materials and to measure the progress of execution of order.
- (f) The supplier shall provide assistance, instruments, machines, labour and materials which are required for examining, measuring and testing any materials & its workmanship as may be selected and required by the TPIA /EIL /BANDR without any extra cost.
- (g) Even if inspection and / or tests are fully carried out at the supplier's works by the TPIA at any stage of execution of the order, supplier shall not be absolved of any degree of his obligations / responsibility to ensure that all materials supplied comply strictly with requirement as per specification given in the tender / order and BANDR /TPIA /EIL/NRL shall be free to point out any defect till the guarantee period is over.
- (h) All tests certificates for raw materials and finish materials are to be provided and submitted by the supplier at the time of inspection and along with supply with identification mark for co-relating with heat marks. All testing charges are to be borne by the supplier.
- (i) **All documents shall be reviewed by EIL / NRL/ for final acceptance. Dispatch of the materials shall be made only on receipt of material Inspection certificate cum Release note from the TPIA.**

21. **Drawings & Documents:**

**Documents to be furnished by Vendor after issuance of LOI/P.O.:-**

2 (Two) sets of QAP (duly endorsed by TPIA) within 7(seven) days of receipt of LOI/P.O along with soft copy which shall be scrutinized and approved by EIL/NRL/NRL

**As Built Documents:-**

The following documents shall be submitted in 2(two) (original + 1 copies) bound sets each and soft copies along with despatch of materials:

- (a) Manufacturing Test Certificates and Inspection Report
- (b) Inspection Certificate-Cum-Release Note by TPIA.
- (c) Approved copy of Quality Assurance Plan.
- (e) Guarantee Certificate

22. **EVALUATION OF THE OFFERS:-NOT APPLICABLE**



23 **Termination/Cancellation of Purchase Order :-**

In case the supplier fails to supply complete materials within delivery schedule and/or progress of work is found to be unsatisfactory, purchaser, at their sole discretion, shall be entitled to terminate/cancel the purchase order.

24. **Acceptance of LOI & Purchase Order:-**

The supplier should confirm acceptance of LOI/SLOI over fax latest within seven days of receipt of the same. if such confirmation is not received by BANDR. from supplier within the specified time as above, it will be deemed that the supplier has accepted the LOI/SLOI.

Purchase order shall be issued in duplicate and supplier shall return duplicate copy of the purchase order duly signed and stamped as a token of acceptance within Five (5) days of receipt of the P.O. if duplicate copy of P.O. is not received within the said (5) days, it will be deemed that the PO has been accepted in toto.

25 **Acceptance of BID**

Acceptance of Client/Owner of the project is a pre-requisite for consideration of Bidder's offer by BANDR for this Tender/Commercial Agreements etc. Accordingly Bidder(s) not acceptable to BANDR's Client/Owner shall not be considered & their offer shall be rejected by BANDR. No correspondence & claim etc. from the Bidder in pursuant to the Tender/Commercial Agreements shall be entertained by BANDR under any circumstances what so ever.

26 **Quantity Variation: +-20%**

27 **Integrity Pack: NOT APPLICABLE**

28. **Arbitration and Conciliation:**

BANDR confidently feel that there shall not arise any disputes or differences during execution and completion of the order / Contract by the Contractor(s).

However, in the event of any dispute arising between the Company and the Contractor (hereinafter referred individually as "the Party" and collectively as "the Parties"), concerning the interpretations of any terms and conditions of the Contract and / or contractual obligations / performance / liabilities / responsibilities of the Parties to the said Contract, the disputing Party shall refer the matter to the other Party for holding a mutual discussion for resolving the dispute. In case the Parties fail to arrive to any settlement through mutual discussion, either of the Parties may avail the following remedies :

**Resolution of Dispute through Conciliation :-**

(i) Any party may refer the dispute for Conciliation under Rules of Conciliation and Arbitration under SCOPE Forum of Conciliation and Arbitration (SFCA), 2003 and amendments made thereto from time to time. (hereinafter referred as "the Rules") by making application to the Secretariat of the SCOPE Forum. The Party initiating conciliation shall send to the other party a written invitation to conciliate under the Rules, briefly identifying the subject matter of the dispute. The settlement so rendered between the Parties in pursuance thereof shall be final and binding on the Parties.

If the other party rejects the invitation, there will be no conciliation proceedings at all.

**Resolution of Dispute through Arbitration :-**

(ii) In case the dispute is not settled by conciliation within 30 days of the initiation of conciliation or such further period as the parties shall agree in writing, the dispute shall be referred to and finally resolved by Arbitration, in accordance with the Rules of Arbitration of SCOPE Forum of Conciliation and Arbitration, 2003 and amendments made thereto from time to time.

The entire proceedings of Arbitration shall be governed under the Arbitration and Conciliation Act, 1996. The venue of Arbitration shall be mutually decided by the Parties. In case the Parties do not agree for resolution of dispute through Conciliation and Arbitration by the above-mentioned SCOPE Forum, the disputing Party shall opt for stipulated rules laid down under the Arbitration and Conciliation Act, 1996. The Contract and the Parties therein shall be governed under the jurisdiction of Calcutta High Court. In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts and commercial agreements (except Income Tax, Customs, Excise duty and also concerning Railways) between company (BANDR) and any other Public Sector Undertaking/Government Department/Bank/Port Trust etc., 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 of 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 take a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India.

Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/ Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

Subject to any amendment that may be carried out by the Government of India from time to time, the procedure to be followed in the arbitration shall be as mentioned above, which is as per O.M. No. 4(1)/2011-DPE(PMA)GL dated 12.06.2013. of Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Govt. of India or any modification issued in this regard.

**TECHNICAL SPECIFICATION & DRAWINGS/DOCUMENTS**

<b>SL. No.</b>	<b>DESCRIPTION</b>	<b>DOCUMENT REF. NO.</b>
1	STANDARD SPECIFICATION FOR SIGNAL CABLES	8 PAGES

**BRIDGE & ROOF CO. (INDIA) LTD.**  
(A GOVT. OF INDIA ENTERPRISE)  
KANKARIA CENTRE, 2/1, RUSSEL STREET,  
5TH FLOOR, KOLKATA-700071.

PROFORMA OF BANK GUARANTEE TOWARDS  
**SECURITY CUM PERFORMANCE GUARANTEE**  
(On Non-judicial paper of appropriate value)

THIS DEED OF GUARANTEE made this \_\_\_\_\_ day of \_\_\_\_\_  
\_\_\_\_\_ by \_\_\_\_\_  
(Name of Bank)

(wherever the context so requires includes its successors and assigns hereinafter called "the Bank") in favour of Bridge & Roof Co.(India) Ltd., having its registered office at Kankaria Centre, 2/1, Russel Street, 5<sup>th</sup> floor, Kolkata-700071 (wherever the context so requires includes its successors and assigns, hereinafter called "the Purchaser") :

WHEREAS Messrs \_\_\_\_\_ having its Registered Office at \_\_\_\_\_

(wherever the context so requires includes its successors and assigns, hereafter called "the Supplier") has been awarded an Order No. \_\_\_\_\_ dated \_\_\_\_\_ by the Purchaser for \_\_\_\_\_ on the Terms & Conditions setforth in the said order dated \_\_\_\_\_

The conditions of order provide inter alia that the supplier shall pay to Purchaser a sum of Rs./US \_\_\_\_\_ Dollar \_\_\_\_\_ (Rupees/US \_\_\_\_\_ Dollar \_\_\_\_\_) being

\_\_\_\_\_ % of order value as security deposit/performance guarantee, in the form and manner and subject to the terms therein mentioned. The form of payment of security deposit/performance guarantee includes a guarantee executed on behalf of the and at the request of the supplier by a Nationalized Bank, undertaking full responsibility to indemnify purchaser in case of default.

The said supplier has approached us and at their request and in consideration of the above mentioned premises we \_\_\_\_\_ having our office at \_\_\_\_\_ have agreed to and hereby give such guarantee as is hereinafter mentioned in Purchaser's favour.

1. We \_\_\_\_\_ of \_\_\_\_\_ ("the Bank") do hereby irrevocably guarantee to the Purchaser the due payment of the said sum of Rs./US Dollar \_\_\_\_\_ (Rupees/US Dollar \_\_\_\_\_) by the supplier to the purchaser in Terms of the said conditions of the Order and their due performance of the obligations in this behalf and undertake and agree with purchaser that if default shall be made by the supplier in performing any of the terms and conditions of the order or in payment of any money payable to the Purchaser under the said Conditions of the Order, we the Bank shall merely on demand pay to the Purchaser without demur and without notice or reference to the supplier in such manner as the Purchaser may direct, the said amount of Rs./US Dollar \_\_\_\_\_ (Rupees/US Dollar \_\_\_\_\_ only) or such portion thereof not exceeding the said sum as purchaser may from time to time require and purchaser can look to us as the principal debtor.
2. The Purchaser will have the full liberty without reference to us and without affecting this guarantee, postpone for any time or from time to time the exercise of any of the powers and rights conferred on the purchaser under the said order with the said supplier and to enforce or to forbear from enforcing any powers or rights or by reason of time given to the said supplier which under law relating to the sureties would but for the provision have the effect of releasing us. Any such time/indulgence/forbearance and/or

any act or omission or commission on purchaser's part will not vitiate out this guarantee.

3. The Purchaser's right to recover the said sum of Rs./US Dollar \_\_\_\_\_(Rupees/US Dollar \_\_\_\_\_only) from the Bank in the manner aforesaid will not be affected or suspended by reason of the fact that any dispute(s) are pending before any officer, Tribunal or Court or Arbitrator(s)/Umpire.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the said supplier but shall in all respects and for all purposes be binding and operative until full payment is received by purchaser as if this is a continuing guarantee to secure purchaser's ultimate dues in the above mentioned premises.
5. We the Bank have power to issue this guarantee in purchaser's favour under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney dated \_\_\_\_\_ granted to him by the Bank.
6. The Bank will have no right of subrogation against the supplier unless all dues of the purchaser as aforesaid are paid in full. Bank do hereby waive their rights of surety ship which are inconsistent with all or any provisions hereof.
7. The Purchaser will be at liberty to alter the terms & conditions of the said order and/or to take any other security/guarantee/promissory notes from the supplier or others which will not affect/vitiate/discharge this guarantee issued by the Bank.

This guarantee will bind our successors and assigns and will remain operative irrespective of any change in the constitution of the Bank and/or the supplier.

- 8.
9. Notwithstanding anything contained hereinbefore the Bank's liability under this guarantee will be restricted to Rs./US \$ \_\_\_\_\_(Rupees/US Dollar \_\_\_\_\_ only) and this guarantee shall remain in force until \_\_\_\_\_ and unless a claim to enforce the guarantee is filed with the Bank within one month from \_\_\_\_\_(which is the date of expiry of guarantee) all rights of purchaser under the said guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities there under.

\_\_\_\_\_  
Bank  
by its constituted attorney

Signature of a person duly  
Authorized to sign on behalf  
of the Bank.

**AFFIDAVIT CUM DECLARATION**

(To be printed on a 120 rupee NJ stamp paper)

I, ....., S/O....., residing at ....., by age....., by domicile Indian, under the capacity of Sole Proprietor /Partner/Authorised Representative/Constituted Attorney/Karta (choose the correct option) of .....ABC....., (full name of MSME/NSIC/SSI) hereby solemnly declare and affirm as follows:

1. That ABC is a Micro/Small/Medium Enterprise (choose the correct option) and is registered under the Micro, Small and Medium Enterprises Development Act, 2006(hereinafter referred to as the MSMED Act) /National Small Industries Corporation (NSIC) / SSI and has its registered office at .....
2. That ABC avails all benefits under the said Act or NSIC as applicable and complies with all statutory formalities from time to time and has never been in default in this regard. (State the correct status of MSME mentioning stage of Part I and Part II in case the registration of MSME is in process as per relevant Act or registration under NSIC as applicable)
3. That ABC, being a Micro/Small/Medium Enterprise under MSMED Act, 2006 or Small Scale Industry or Enterprise registered under NSIC is entitled to claim exemption from deposit of Tender Fee and Earnest Money for the Tender put under notice by Bridge & Roof Co.(I) Limited, having their office at 2/1 Russel Street, Kolkata- 700071 (hereinafter referred to as the Company/BANDR) i.e. : Tender No..... for .....(name of the Project)
4. That all documents of Bid submitted by ABC before the Company/BANDR related to their registration, business activities, credentials and expertise are copies of original certificates and/or documents obtained on production of valid documents and facts.
5. That all the above representation and information disclosed in para 1 to 4 are correct and true to my knowledge and nothing material has been concealed. In case any documents or information are found to be false or forged, the bid submitted by ABC or any Job Order awarded to ABC shall be liable to cancelled by BANDR and ABC shall be liable to indemnify BANDR against the risk, cost and damage which the latter may suffer due to such acts of ABC.

IN WITNESS WHEREOF, I, ..... of ABC HEREBY AFFIRM THIS AFFIDAVIT CUM DECLARATION ON THIS ..... DAY OF .....

\_\_\_\_\_  
(Name)  
Authorised Representative  
(DEPONENT)

**VERIFICATION**

I, the above named Deponent do hereby verify that the contents of the above Affidavit cum Declaration are true and correct to my knowledge & belief and no part of it is false. Nothing material has been concealed there from.

Verified at ..... on this..... day of .....

\_\_\_\_\_  
(Name)  
Authorised Representative  
(DEPONENT)

(Signature of Notary Public)

**Format for INPUT TAX CREDIT**  
**TO WHOMSOEVER IT MAY CONCERN**

Legal Name of Entity	:	
Trade Name of Entity	:	
Registered Office Address	:	
Pin	:	
GSTIN	:	

Please select the applicable response under column C in respect of details set out in column "B".

Case No.	Aggregate Turnover at PAN level (in any preceding financial year from FY 17-18 onwards)	Select the applicable case
(A)	(B)	(C)
1.	More than INR 50 Crores	
2.	Less than or equals to INR 50 Crores	
3.	Specific category excluded from compliance to e-invoicing, as notified.	

I/We, .....of .....(hereinafter called as "the Company") do hereby declare that the aggregate turnover of "the Company" computed as per Section 2(6) of Central Goods and Service Tax Act, 2017 exceed limit prescribed for generation of an unique Invoice Registered Number (IRN) and QR code as per the provisions of Central Goods and Service Tax Act, 2017 and rules there under ("GST Law"). Accordingly, we are covered under the ambit of GST e-invoicing provisions w.e.f. 1<sup>st</sup> October,2020 and therefore, the invoices, debit notes, credit notes or any other prescribed documents under e-invoicing issued/raised by us duly compliance with the notified e-invoicing provision.

Further, any invoice or document issued by the Company to Bridge and Roof Co. (India) Ltd. having GSTIN: 21AABC3166E1ZB shall be properly and timely reported under respective return under GST by the Company in line with the notified provisions and the applicable tax collected form Bridge and Roof Co. (India) Ltd. shall be timely and correctly paid to respective Government by us.

We acknowledge that information furnished above are true to the best of our knowledge. In case any of the above information is found to be incorrect at a later date or due to failure on our part to comply with the relevant laws/regulations and if any GST liability, interest, penalties or any other amount becomes payable or input tax credit is denied to Bridge and Roof Co. (India) Ltd. having GSTIN: 21AABC3166E1ZB, we shall indemnify for the same.

For and on behalf of .....

(Signature of Authorized Signatory)

Name: .....

**'PART – II'**

**Specification and Schedule of Quantities & Rates (SOQR)**

[BIDDER SHALL SUBMIT THIS PAGE ALONGWITH TECHNO-COMMERCIAL OFFER (PART – I), DULY WRITTEN THE WORD "QUOTED"  
AGAINST EACH ITEM / COMPONENT/BREAKUPS]

Sl. No.	Item Description	Quantity	Unit	Rate	Total Amount (in Rs.)
A	Design, Engineering, Manufacturing, Inspection / Testing at manufacturer's works, Packing and forwarding from manufacturer's place of dispatch, delivery at project site of <b>INSTRUMENT AND SIGNAL CABLES</b> as per technical specification / Data sheet given in Tender for our NRL COIT Project, Paradip, Odisha.				
A.1	RTD Cable, as per Standard Specification 6-52-0046 size 1T X 1.5 mm2, FRLS	100	METRE		
A.2	Triad Cables as per Standard Specification 6-52-0046 size 8 T X 1.5 mm2, (Black) IS, FRLS	9600	METRE		
A.3	Signal Cable as per Standard Specification 6-52-0046 size, 1P X 1.5 mm2, IS, FRLS	2500	METRE		
A.4	Signal Cable as per Standard Specification 6-52-0046 size 6P X 1.5 mm2, (Blue) IS, FRLS	28200	METRE		
A.5	Control cables as per Standard Specification 6-52-0046 size 1P X 1.5 mm2 , NIS, FRLS	1000	METRE		
A.6	Control cables as per Standard Specification 6-52-0046 size 6P X 1.5 mm2 , (Black) NIS, FRLS	24300	METRE		
	<b>TOTAL Price shall be inclusive of Packing &amp; Forwarding, Freight Charges, Transit Insurance &amp; GST i.e. C.I.F. Price at BandR's Crude Oil Import Terminal (COIT) project of Numaligarh Refinery Limited (NRL) at Paradip.</b>				

**PRICE SHALL NOT BE MENTIONED HERE**

PLEASE WRITE '**QUOTED**'  
AGAINST EACH  
ITEM/COMPONENT

(SIGNATURE OF BIDDER WITH STAMP)



# सिगनल केबल के लिए मानक विनिर्देश

## STANDARD SPECIFICATION FOR SIGNAL CABLES

8	10.12.21	Revised and Reissued as Standard Specification	RK	ASDB	MN	SM
7	28.03.17	Revised and Reissued as Standard Specification	SMK	RK	RG	RN
6	15.12.10	Revised and Reissued as Standard Specification	RSD	RP	TGM/JMS	ND
5	03.05.05	Revised and Reissued as Standard Specification	NPG	AKG	PM	VJN
4	27.01.98	Revised and Reissued as Standard Specification	PM	RK	BRS	AS
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
Approved by						

**Abbreviations:**

DC	:	Direct Current
EPR	:	Ethylene-Propylene Rubber
FR	:	Flame Retardant
FRLS	:	Flame Retardant Low Smoke
PE	:	Polyethylene
PETP	:	Polyethylene Terephthalate
PVC	:	Polyvinyl Chloride
XLPE	:	Cross Linked Poly Ethylene

**Instrumentation Standards Committee**

**Convener:** Mr. Mainak Nandi

**Members:** Mr. Arupjyoti Saikia  
Mr. Sachin Garg  
Mr. Jerry Johnson  
Mr. Mayank Kaushik  
Mr. Saurav Mukherjee  
Ms. K.Pratheepa  
Mr. R.K.Gupta (Projects)

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1.0 GENERAL

1.1 Scope

1.1.1 This specification, together with the data sheets, covers the requirements for design, materials, manufacturing, inspection, testing and shipping of signal cables.

1.1.2 Cables shall comply with latest edition of the following standards prior to the date of the purchaser's enquiry.

ASTM	American Society for Testing and Materials
D 2843	Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
D 2863	Test method for measuring the minimum oxygen concentration to support candle like combustion of plastics (oxygen index).
BS	British Standards
EN50288-7	Multi-element metallic cables used in and digital communication and control. Sectional specification for instrumentation and control cables.
EN 60228	Conductor of Insulated Cables
IEC	International Electro technical Commission
60811-201	Electric and optical fibre cables – Test methods for non-metallic materials – Part 201: General tests – Measurement of insulation thickness.
60331	Testing of Fire Resistant cables.
60332	Tests on bunched wires and cables.
60092	Electrical Installations of Cables
60754	Test on Gases Evolved during Combustion of materials from Cables – Part 1, 2.
IS	Indian Standards
1554 Part 1	PVC insulated (heavy duty) electric cables-working Voltage up to and including 1100V.
3975	Mild steel wires, formed wires and tapes for armouring of Cables.
5831	PVC insulation and sheath of electric cables.
6380	Elastomeric insulation and sheath of electric cables
7098	Cross-Linked Polyethylene Insulated PVC sheathed Cables
10810	Method of test for cables.
Part 40	Method for testing uniformity of Zinc coating on Steel armour
Part 41	Mass of zinc coating on steel armour
Part 58	Oxygen Index test
Part 59	Determination of the amount of halogen acid gas evolved during combustion of polymeric material taken from cables
Part 61	Flame Retardant test
Part 62	Flame Retardance test for bunched cables
Part 63	Smoke densities of electric cables under fire conditions
Part 64	Measurement of Temperature Index

1.1.3 In the event of any conflict between this standard specification, data sheets, statutory regulations, related standards, codes etc., the following order of priority shall govern:

a) Statutory Regulations

- b) Data Sheets
- c) Standard Specification
- d) Codes and Standards

## 1.2 Bids

- 1.2.1 Vendor's quotation shall be strictly as per the bidding instructions to vendor attached with the material requisition.
- 1.2.2 All documentation submitted by vendor including their quotation, catalogues, drawings and documents etc. shall be in English language only.
- 1.2.3 Vendor shall furnish unit price per metre for each type of cable, which shall be used for any addition or deletion of the quantity.

## 1.3 Drawings and Data

- 1.3.1 Detailed drawings, data and catalogues required from the vendor are indicated by the purchaser in the vendor data requirement sheets attached with the requisition.
- 1.3.2 Final documentation consisting of design and constructional data submitted by the vendor after placement of order shall include the following, as a minimum.
  - a) Specification sheet for each type of cable along with test certificates and test reports.
  - b) Cable details giving electrical characteristics, overall diameter, weight, diameter under armour and diameter over armour.

## 2.0 DESIGN AND CONSTRUCTION

### 2.1 Constructional Requirements

- 2.1.1 Cables shall be heavy-duty type, 500V grade.

For polyvinyl chloride (PVC) Type C cables, primary insulation shall withstand maximum conductor temperature of 85°C and shall meet the requirement specified in IS 5831. Thickness of primary insulation shall be 0.5 mm as a minimum. For PE insulated cables, primary insulation shall withstand maximum conductor temperature of 70°C Polyethylene. For XLPE insulated cables, primary insulation shall withstand maximum conductor temperature of 90° C and shall meet the requirement specified in IS-7098 (Part-1).

The type of primary insulation shall be as specified in purchasers data sheets.

- 2.1.2 Inner sheath colour of signal cables shall be black. Outer sheath colour shall also be black except for cables used in intrinsically safe systems. The outer sheath colour for all such cables used in intrinsically safe application shall be light blue. The thickness of the sheath shall be as per IS 1554 part 1.
- 2.1.3 Inner and outer sheath of cable shall be flame retardant made of extruded PVC Type ST2 (90°C) as per IS 5831 and shall meet the following requirements:
  - a) Minimum Oxygen index of PVC shall be 30 at 27 °C ±2°C.
  - b) Temperature index shall be over 250 °C.
  - c) Inner and Outer sheath shall possess flame retardant properties meeting requirements for bunched cables as per IS 10810 (Part 62) category AF or IEC 60332 category A.
  - d) A rip cord shall be provided for inner sheath.
  - e) Outer sheath shall be suitable for protecting the cable against rodent and termite attack.

f) Inner and Outer sheath of all cables shall be water resistivity type.

- 2.1.4 All types of cables shall be armoured type unless otherwise specified. Armour over inner sheath shall be of galvanised steel wire (flat or round wire type). The dimensions of armour shall be as per IS 1554 (Part 1). Requirement and methods of tests for armour material and uniformity of galvanisation shall be as per IS 3975 and IS 10810 (Part 40) respectively.
- 2.1.5 Each pair/triad shall be shielded. Shield shall be of aluminium backed by mylar / polyester tape bonded together helically applied with metallic side down having 25% overlap on either side and 100% coverage. Minimum shield thickness shall be 0.05 mm. Drain wire shall be 0.5 mm<sup>2</sup> multi-strand bare tinned annealed copper conductor. The drain wire shall be in continuous contact with aluminium side of the shield.
- 2.1.6 Overall shield shall be of aluminium backed up by mylar/polyester tape helically applied with the metallic side down with either side having 25% overlap and 100% coverage. Minimum shield thickness shall be 0.075 mm. Drain wire shall be similar to individual pair/triad drain wire and shall be over the overall shield.
- 2.1.7 The cores of a pair triad shall be twisted with a minimum of 10 twists per metre of cable.
- 2.1.8 Sequential marking of the length of the cable in meters shall be provided on the outer sheath at every one meter. The embossing /engraving/printing shall be legible and indelible.
- 2.1.9 Tolerance in overall diameter of cable shall be within  $\pm 2$  mm over offered value. The actual overall diameter (O.D) of the manufactured cable shall meet the O.D specified by the vendor in the offer and purchase requisition within the specified tolerance limits.
- 2.1.10 The cables used in installations under the jurisdiction of Director General of Mines and Safety (DGMS) shall meet all requirements of DGMS. The word "Mining Cable" shall be embossed on the cable outer sheath as per IS 1554 (Part 1).

2.1.11 Drum length and length tolerance

The length of the cables in each drum (drum length) shall be as specified in the purchaser data sheets. Where no drum length is indicated in the data sheet /material requisition, the following shall apply:

Drum length for single pair/ single triad cable	: 500 metres
Drum length for multi-pair/ multi- triad cable	: 1200 metres

Actual produced drum length shall not vary by more than  $\pm 3\%$  from the length indicated in purchaser's datasheet.

- 2.1.12 Tolerance over the total ordered length shall not vary by more than +0% and (-) 2% for total length for a type of cable.
- 2.1.13 Specific Requirements for fire resistant or fire survival cable.
- 2.1.13.1 The cables shall have circuit integrity as per IEC 60331 (Part-21).
- 2.1.13.2 Primary insulation shall be heat resisting elastomeric which can withstand temperature up to 90°C such as silicon rubber/mica glass tape/EPR (medium grade) as per IS 6380. Insulation thickness shall be 1.0mm minimum (0.44 mm for Silicon rubber) and shall conform to IEC 60092.
- 2.1.13.3 Individual pair triad shall be shielded. The shield shall be aluminium backed by mylar/PETP tape with the metallic side down helically applied with 25% overlap on either side and 100% coverage. Minimum shield thickness shall be as per IEC 60092. Drain wire shall be 0.5mm<sup>2</sup> (7/0.3mm dia) multi-stranded bare tinned annealed copper conductor. Drain wire shall be in continuous contact with aluminium side of the shield.

- 2.1.13.4 Inner and outer sheath shall be made of low smoke, heat resistant, oil resistant and flame retardant material with oxygen index over 30, temperature index shall be over 250°C. Acid generation shall be maximum 20% by weight as per IEC 60754. Smoke density rating not to exceed 60% as per ASTM D 2843.
- 2.1.13.5 The thickness of the sheath shall be as per IEC 60092. Inner and outer sheath colour shall be orange. A rip cord shall be provided for inner sheath.
- 2.2 Electrical Characteristics**
- 2.2.1 Maximum DC resistance of the conductor of the finished cable shall not exceed 7.41  $\Omega$  / km at 20°C for cables with 2.5 mm<sup>2</sup> conductors, 12.3  $\Omega$  / km at 20°C for cables with 1.5 mm<sup>2</sup> conductors and 39.7  $\Omega$  / km at 20°C for cables with 0.5 mm<sup>2</sup> conductors.
- 2.2.2 Capacitance**
- 2.2.2.1 Mutual Capacitance for PVC Insulated cables  
The mutual capacitance of between pairs/triads or adjacent cores shall not exceed of 250 pF / metre at a frequency of 1 KHz.
- 2.2.2.2 Mutual Capacitance for PE/XLPE Insulated cables  
The mutual capacitance between the pairs/triads shall not exceed of 100 pF / metre at a frequency of 1 KHz.
- 2.2.2.3 Capacitance between any core or screen  
The capacitance between any core and screen shall not exceed a maximum of 400 pF / metre at a frequency of 1 KHz.
- 2.2.3 L/R ratio of adjacent core shall not exceed 60  $\mu\text{H} / \Omega$  for cables with 2.5 mm<sup>2</sup> conductors, 40  $\mu\text{H} / \Omega$  for cables with 1.5 mm<sup>2</sup> conductors and 25  $\mu\text{H} / \Omega$  for cables with 0.5 mm<sup>2</sup> conductors.
- 2.2.4 The drain wire resistance including shield shall not exceed 30  $\Omega$  / km.
- 2.2.5 Electrostatic noise rejection ratio of the finished cable shall be over 76 dB.
- 2.3 Type I (Single pair/Triad shielded).**
- 2.3.1 Each core shall be 1.5/2.5 mm<sup>2</sup> (as per respective data sheet) made of 7 stranded annealed electrolytic copper conductor. Each strand shall be 0.53 mm dia for 1.5 mm<sup>2</sup> conductor size and 0.67 for 2.5 mm<sup>2</sup> conductor size.
- 2.3.2 Colour of core insulation shall be black and blue in pair and black, blue and brown in a triad.
- 2.3.3 All other specifications shall be as per clauses 2.1. and 2.2 of this specification.
- 2.4 Type-II (Multi-pair/Multi-triad cable with individual pair/triad shield and overall shield)**
- 2.4.1 Conductor sizes shall be 0.5mm<sup>2</sup> made up of 7 strands of annealed electrolytic copper conductor. Each strand shall be of 0.3 mm diameter.
- 2.4.2 Overall twist of all pair/triads shall be as per vendor's standard.
- 2.4.3 A pair of communication wire shall be provided for multipair / multitriad cables. Each wire shall be 0.5 mm<sup>2</sup> of plain annealed single or multistrand copper conductor with 0.4 mm thick 85°C PVC insulation. Insulation shall be green and red colour coded.
- 2.4.4 A pair identification shall be with numbers at interval of not more than 250 mm. Pair identification to be printed on the primary insulation for multi-cables.
- 2.4.5 All other specifications shall be as per clauses 2.1. and 2.2 of this specification.

**2.5 Type-III (Multi-pair/ Multi-triad cable with individual pair/triad shield and overall shield)**

2.5.1 The cable shall be same as type-II cable, except conductor size shall be 2.5 mm<sup>2</sup> made of 7 stranded annealed electrolytic copper conductor. Each strand shall be of 0.67 mm dia.

**2.6 Type-IV (Multi-pair /Multi-triad cable with individual pair shield and overall shield)**

2.6.1 The cable shall be same as Type II, except conductor size shall be 1.5 mm<sup>2</sup> made of 7 stranded annealed electrolytic copper conductor. Each strand shall be of 0.53 mm dia.

**2.7 RS-485 Cable**

2.7.1 The cable shall be 2Pair x 1 mm<sup>2</sup> made of 7 stranded annealed electrolytic copper conductor. Each strand shall be of 0.43 mm dia. All other specifications shall be as per clauses 2.1. and 2.2 of this specification.

**3.0 NAMEPLATE (Identification on Cable Drums)**

Each cable drum shall be marked with the following information at a visible place;

- a) Manufacturer's name
- b) Type and size of the cable as per material requisition.
- c) Length of the cable in meters contained in the drum.
- d) Gross weight
- e) Drum number
- f) Direction of rotation of drum for unwinding by means of an arrow.
- g) Purchase order number.

**4.0 INSPECTION AND TESTING**

4.1 Purchaser reserves the right to inspect and witness testing of all the items at vendor's works as per Inspection Test Plan and approved quality documents. All these tests shall be completed by the vendor and test reports shall be submitted to Purchaser for scrutiny.

4.2 Immediately after completion of electrical tests, the ends of the cable shall be sealed to prevent Ingress of moisture with suitable PVC / rubber caps.

**5.0 SHIPPING**

Cables shall be dispatched in wooden drums securely battened, with takeoff end fully protected against damage. Minimum number of eight PVC/rubber end caps shall be shipped with each drum.