



RailTel Corporation of India Ltd.
143, Institutional Area, Sector-44
Gurgaon-122003 (NCR), Tel. No.: +91 124 4236085-86,
FAX: +91 124 4236084

(भारत ब्रॉडबैंड नेटवर्क लिमिटेड की ओर से)

For and on behalf of Bharat Broadband Network Ltd (BBNL)

रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का एक उपक्रम)

RAILTEL CORPORATION OF INDIA LIMITED
(A Govt. of India Undertaking)

As Deposit work, भारत ब्रॉडबैंड नेटवर्क लिमिटेड की ओर से, NOFN के लिए 8216 KM 24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories की सप्लाई हेतु ई-निविदा.

ELECTRONIC TENDER DOCUMENT (Open Tender)

E-bids for the supply of 8216 KM, 24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories for NOFN as Deposit work on the behalf of M/S Bharat Broadband Network Ltd. (BBNL) .

E-TENDER NO. RAILTEL/TENDER/OT/CO/OP/2016-17/OFC and Accessories/NOFN/343

Due for Opening on 03.10.2016 at 15.30 hrs.

CIN-U64202DL2000GOI107905



रेलटेल कॉर्पोरेशन ऑफ़ इंडिया
प्लॉट नंबर 143, सेक्टर 44, गुडगाँव-1220003,
दूरभाष: 0124-4236085, 86, फैक्स: 0124-4236084

**E-TENDER NO. RAILTEL/TENDER/OT/CO/OP/2016-17/OFC and Accessories/NOFN/343
Dt 23.08.2016**

रेलटेल कॉर्पोरेशन ऑफ़ इंडिया लिमिटेड (रेलटेल), भारत ब्रॉडबैंड नेटवर्क लिमिटेड की ओर से TAC/TSEC approved निर्माताओं से NOFN के लिए 8216 KM 24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories, single पैकेट प्रणाली में शामिल होने के लिए E-निविदा आमंत्रित की जाती है। इच्छुक निविदाकर्ता निविदाये नीचे दिए गए नियम व कार्यक्रम के अनुसार जमा करें।

(खुली निविदा)

a)	निविदा downloading की शुरुआती तिथि	31.08.2016
b)	E-निविदा दस्तावेजों की प्रस्तुति	03.10.2016 up-to 1500 hrs.(Online)
c)	E-निविदा दस्तावेजों को खोला जाना	03.10.2016 at 1530 hrs.(Online)
d)	सप्लाई का अनुमानित मूल्य	रु. 46.82 Crore
e)	धरोहर राशि (ईएमडी) #	रु. 10.00 लाख *
f)	निविदा दस्तावेज की कीमत #	रु. 5656 (वैट एवं सरचार्ज सहित) *

* ये बैंक ड्राफ्ट द्वारा रेलटेल कॉर्पोरेशन ऑफ़ इंडिया लिमिटेड, नई दिल्ली के पक्ष में देय होगा।

सिंगलपॉइंट के तहत NSIC से मान्यता प्राप्त लघु उद्योगों को निविदा दस्तावेज का मूल्य एवं धरोहर राशि (ईएमडी) जमा कराने से छूट दी जाती है।

- क्योंकि यह टेंडर 15 करोड़ के अनुमानित मूल्य से अधिक है अतः यह सत्यनिष्ठा अनुबंध (Integrity Pact) की श्रेणी में आता है जिसके लिए निविदाकर्ता को सत्यनिष्ठा अनुबंध पर हस्ताक्षर कर उसे टेंडर खुलने के तिथि /समय से पहले रेलटेल कार्यालय में जमा करना होगा | अधिक जानकारी के लिए Chapter 3 item 3.3.5 देखें ।

नोट:-1. निविदा सूचना और निविदा दस्तावेज वेबसाइट www.railtelindia.com तथा e-Tendering Portal <https://www.tcil-india-electronictender.com> पर उपलब्ध रहेंगे जिसे निविदाकर्ता डाउनलोड कर सकते हैं लेकिन निविदा केवल इ-टेंडरिंग द्वारा TCIL Portal <https://www.tcil-india-electronictender.com> पर ONLINE ही स्वीकार कि जाएगी. निविदाकर्ता को e-बिड जमा कराने के लिए TCIL Website से एक अधिकृत इ-दस्तावेज डाउनलोड करना आवश्यक है. Corrigendum /addendum /amendments सम्बंधित जानकारी केवल TCIL Portal पर ही उपलब्ध होंगी. निविदा दस्तावेज कि छपी हुई प्रति बिक्री के लिए उपलब्ध नहीं होगी.

बैंकड्राफ्ट RailTel Corporation of India Limited, के पक्ष में, नईदिल्ली में देय होना चाहिए !

शुद्धि पत्र आदि केवल TCIL Website <https://www.tcil-india-electronictender.com> पर उपलब्ध होंगे !

निविदा दस्तावेज वेबसाइट से डाउनलोड करने पर, निविदा दस्तावेज की कीमत 5656/- रुपये की राशि डीडी के रूप में जमा की जाए। अधिक जानकारी के लिए Chapter 2-A , item 6 देखें.

- निविदाकर्ता को निविदा सम्बंधित खर्च, जैसे निविदा तैयार करवाने ,जमा करवाने तथा निविदा में भाग लेने आदि जैसे सभी खर्च स्वयं वहन करने होंगे. रेलटेल इन खर्चों के लिए किसी भी दशा में देनदार नहीं होगा, भले ही निविदा का परिणाम कुछ भी हो.

महाप्रबंधक/संचालन



RailTel Corporation of India Ltd.
Plot No. 143, Institutional Area, Sector -44
Gurgaon-122003. Ph: 0124-4236085-86. Fax: 0124-4236084

E-TENDER NO. RAILTEL/TENDER/OT/CO/OP/2016-17/OFC ans Accessories/NOFN/343
Dt 23.08.2016

RailTel Corporation of India Ltd. (RailTel) for and behalf of M/S Bharat Broadband Network Ltd(BBNL) invites e-Tenders from the TAC/TSEC approved sources, for the supply of **8216** KM 24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories for NOFN.

(Open Tender)

a)	Opening date of Tender downloading	31.08.2016	
b)	Submission date of e bids	03.10.2016 up-to 1500 hrs.(Online)	
c)	Opening of e bids	03.10.2016 at 1530 hrs.(Online)	
d)	Approx. value of supplies	Rs. 46.82 crore	
e)	Earnest Money (EMD) #	Rs.10.00 Lakhs*	
f)	Cost of Tender Document #	Rs. 5656 (Including VAT & Surcharge) *	
	* These will be payable by Bank Draft in favour of RailTel Corporation of India Limited., New Delhi.		

Small scale Units registered with NSIC under single point registration scheme are exempted from cost of Tender Documents and from depositing Earnest money.

- **This tender is covered under Integrity Pact Program of RailTel and bidders are required to sign the Integrity Pact (for the value exceeding Rs. 15 crores at a time) and submit the same to RailTel before tender opening date and time along with the OFF LINE Documents. Tender received without signed copy of the Integrity Pact document as instructed in Clause 3.3.5, Chapter-3 shall be liable to be rejected.**

Note: Tender Notice and Tender Document are available on RailTel's website and can be downloaded from www.railtelindia.com or from the e-Tendering portal <https://www.tcil-india-electronictender.com>. For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL's e-portal. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the e-Tendering Portal only. Printed copy of Tender document will not be sold from RailTel office.

The cost of Tender Document Rs. 5656/- shall, however, have to be deposited in the form of demand Draft payable at New Delhi at RailTel Office , Plot 143, Sec 44, Gurgaon ,for more details see Chapter 2-A , item 6.

The bidder shall bear all costs associated with the preparation, submission/participation in the bid. Purchaser in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.

General Manager/Operations

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RAILTEL

Chapter-I

Schedule of Requirements

S.NO.	STATE/UT	24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories	Branch Joint Closures (BJC)	Straight Joint Closures (SJC)	Splitter 1:2	Splitter 1:4	Splitter 1:8	24F Fibre Termination Box (FTB)	FDMS (24 F)	Patch Cords 5m with SC-APC connector
	Unit	KM	No.	No.	No.	No.	No.	No.	No.	No.
1	Meghalaya	1342	1293	269	201	76	0	569	22	2276
2	Mizoram	2343	1513	197	169	48	0	502	31	2008
3	Manipur	2149	946	1026	250	155	0	900	28	2982
4	Nagaland	793	113	278	97	31	0	266	23	1064
5	Arunachal Pradesh	1589	530	444	167	79	0	646	58	2594
	TOTAL	8216	4395	2214	884	389	0	2883	162	10924

Note: Bidder shall furnish the detailed Bill of Material (BOM) for each SOR item mentioned above. The detailed Bill of Material should clearly mention all the components including quantities, constituting the SOR item.

Price Schedule of Requirements for (State Name) (To be filled up completely, duly signed & stamped & uploaded on TCIL Website)

S. No	Item Description	Unit	Qty	Unit Basic Price	Packing & Forwarding charges	ED@	Sales Tax/CS T/VAT/L ST @	Freight & Insurance charges.	Unit		Total cost CIP destination	
						____%	____%		Cost CIP destination			
									In fig.	In words	In fig.	In words
1	24F Metal free Optical Fibre Cable with double HDPE Sheath (G.652D Fiber)	KM										
2	Branch Joint Closures	No.										
3	Straight Joint Closures	No.										
4	Splitters 1:2	No.										
5	Splitters 1:4	No.										
6	Splitters 1:8	No.										
7	Termination Box 24F	No.										
8	FDMS (24 F)	No.										
9	Patch Cords 5m with SC-APC connector	No.										
Grand Total												

Octroi / Entry Tax will be paid extra as per actual on production of proof of payment/document.

Note: Supplier can quote for one, more than one or for all states as per Schedule of requirement under Chapter I. The bidders would be required to quote for all the SOR items for a particular state. The bid may be rejected if not quoted accordingly.

Table for state wise transportation of OFC & Accessories

S.No	State	CST/ST/VAT @..... %	Freight & Insurance charges in Rs /per KM
1	J&K		
2	Himachal Pradesh		
3	Haryana		
4	Punjab		
5	Chandigarh		
6	Delhi		
7	Rajasthan		
8	Uttar Pradesh		
9	Uttarakhand		
10	Madhya Pradesh		
11	Maharashtra		
12	GOA		
13	Gujarat		
14	Andhra Pradesh		
15	Telangana		
16	Orissa		
17	Karnataka		
18	Tamilnadu		
19	Kerala		
20	Jharkhand		
21	Chhattisgarh		
22	Bihar		
23	West Bengal		
24	Assam		
25	Mizoram	XXXXXXXXXX	XXXXXXXXXXXX
26	Manipur	XXXXXXXXXX	XXXXXXXXXXXX
27	Tripura		
28	Meghalaya	XXXXXXXXXX	XXXXXXXXXXXX
29	Nagaland	XXXXXXXXXX	XXXXXXXXXXXX
30	Arunachal Pradesh	XXXXXXXXXX	XXXXXXXXXXXX
31	Daman & Diu		
32	Dadar & Nagar Haveli		

CHAPTER 2

BID DATA SHEET

Reference	Description
Schedule of Requirement Chapter – 1	<p>Name of work Supply of 8216 KM 24 Fibre Metal Free Optical Fibre Cable with double HDPE Sheath (G.652D) and accessories for NOFN as Deposit work on the behalf of M/S Bharat Broadband Network Ltd(BBNL).</p>
Tender notice	<p>Last date of submission (online) Date: 03.10.2016 Time: 15:00 Hrs.</p> <p>Date of opening of tender(online) Date : 03.10.2016 Time: 15:30 Hrs</p> <p>Public Online Tender Opening Event (TOE) through e-Tendering portal of TCIL.</p>
Instructions to Tenderers Clause – 3.3 Chapter 3	<p>3.3 ELIGIBILITY CRITERIA:</p> <p>3.3.1 The bidders should be Indian Companies registered to manufacture the tendered item in India and have obtained clearance from Reserve Bank of India, wherever applicable. In addition they should meet the following criteria: The Bidders should:</p> <p>3.3.1.1 (a)</p> <p>have got Type Approval Certificate (TAC) from Telecom Engineering Centre (TEC), New Delhi or Technical Specification Evaluation Certificate (TSEC) from Quality Assurance Circle, BSNL, Bengaluru, against the technical specification of 24 fibres Optical Fibre Cable (24F OFC) mentioned in Chapter 4 of this document.</p> <p style="text-align: center;">OR</p> <p>3.3.1.1(b)</p> <p>have applied for TSEC in QF-103 form to Quality Assurance Circle, BSNL, Bengaluru or</p>

in form – B to TEC New Delhi for their product against the technical specifications of 24F OFC mentioned in chapter 4 of this document at least one day before the opening of the tender. The registration no. allotted for the TSEC purpose by QA Circle BSNL Bengaluru or for TAC purpose by TEC New Delhi shall be submitted along with the bill. However, only type approved OFC as per above specifications will be accepted, which will have to be obtained before commencing supplies by the bidder.

3.3.1.2

have executed Commercial order(s) issued by DOT/ BSNL/ MTNL/ State Government/ PSUs/Telecom Service Providers for the OF Cable (24 Fibre and above) for a minimum total quantity of 2,000 Route Km during the last three (3) financial years i.e.2013-14, 2014-15 and 2015-16 (till the last date of submission of bid). The bidders shall submit certificate(s) from the end user(s) for the satisfactory working/ performance of the OF Cable supplied by them for the quantities required under this clause.

3.3.2 All tendered items other than OF Cable i.e. accessories, etc. shall be type approved against the respective technical specifications as per TEC GRs mentioned in the table below and the valid TAC/ TSEC of the quoted items of accessories shall be submitted along with the bid. TSEC obtained against BBNL tender no. BBNL/MM/2013/001 issued on 03/04/2013 will be acceptable to meet eligibility criteria. For such accessories, i.e. joint closures, splitters and termination box, the bidder may quote for such models of accessories for which, TSEC in QF-103 Form to Quality Assurance Circle, BSNL, Bengaluru or in Form-B to TEC, New Delhi have been applied for against the technical specifications as per respective TEC GRs at least one day before the opening of the tender. The registration number allotted for the TSEC purpose by QA Circle BSNL Bengaluru

or for TAC purpose by TEC New Delhi shall be submitted along with the bid. However only type approved accessories as per below specifications, will be accepted, which will have to be obtained before placement of APO. If the bidder is not the manufacturer of such tendered items, then the bidder shall enter into legally binding agreement(s) with the manufacturers of the tendered items and the copy of such agreement(s) shall be furnished with the bid. It shall be bidder's responsibility to ensure timely availability of valid TSEC/ TAC against such third-party products.

The Patch Cords should also be TAC/ TSEC/ CACT (SAC) approved or have been applied for TAC/ TSEC/ CACT (SAC) in appropriate forms to TEC New Delhi or QA Circle BSNL Bengaluru at least one day before the opening of tender against the technical specification mentioned in the table below. The type approval certificate or the registration certificate issued by TEC/ QA Circle BSNL would be submitted with the bid. Other conditions as mentioned above and applicable for other accessories would be applicable for Patch Cords also.

S. No.	Accessory	TEC GR No.
1.	24F Splice Closure (buried type) for making Straight Joints and Branch Joints for branching 6F/12F/48F cables with provision for mounting splitters.	TEC GR No. TEC/GR/TX/OJC-002/03/APR-2010 with latest amendment, if any
2	Splitters 1:8 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter	The Splitters shall meet the characteristics as per TEC GR No-GR/TX/OPT/001/ 01 APRIL 2012. All the fibers used inside the splitters shall be compliant to TEC GR for G.652D/G.657A OF Cable.
3.	Splitters 1:4 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter	
4.	Splitters 1:2 with pig tails, mountable inside the	

	FTB/FDMS with pig tails each 1 meter.	
5.	Patch Cord 5 M. length with SC-APC connector (BIF G.657A Fibre)	TEC GR No. TEC/GR/Tx/OFJ-01/05 NOV 2009
6.	24 F FDMS (Indoor) with patch panel, wall mountable	GR No. GR/FDM-01/02 April 2007 TYRE-IIIA with the latest amendment if any It should be wall mounted and compact with SC-PC splicing cum patching panel for terminating loose tube type cable.
7.	24F Fibre Termination Box(FTB) with patch panel having 4 SC-APC adapters & wall mountable	TEC GR No. GR/TX/FTB-02/02 APR-2010 (type II) with latest amendment, if any

3.3.3 Full quantity i.e. 100% of the Optical Fibre Cable and accessories to be supplied against this tender shall be domestically manufactured and the minimum domestic Value Addition (VA) to qualify as Domestically Manufactured Telecom Product shall be 45% for the financial year 2015-16. The formula for calculation of Value Addition for telecom products shall be as notified by the Department of Electronics and Information Technology from time to time. The bidder shall submit a self-certification certifying that the domestic Value Addition in the OF Cable and accessories being supplied to BBNL is 45% or more.

3.3.4 The bidders shall submit necessary documentary proof showing that they meet the eligibility criteria along with their tender bid. All documents submitted will also be self-attested.

3.3.5 Integrity Pact Performa (given in Chapter 9 A

	<p>to be completely filled by person signing the bids and two copies submitted on a non-judicial stamp paper of Rs. 100/-.If the bidder is a partnership or a consortium, the Integrity Pact shall be signed by all the partners or consortium members and submitted in original along with Off line documents on or before Tender opening date and time. (Scanned copy to be uploaded on TCIL website).</p> <p>Tender received without Integrity Pact document as mentioned in Clause 3.3.5, Chapter-3 shall be liable to be rejected.</p>
<p>Instructions to Tenderers Clause – 6.4 Chapter 6</p>	<p>Earnest money –Rs. 10,00,000/- (Rupees Ten Lakhs only) Pay order/ Demand Draft shall be drawn in favour of RailTel Corporation of India Ltd payable at New Delhi.</p> <p>Original DD to be deposited in RailTel Office, Gurgaon, for more details see Chapter 2-A , item 6</p>
<p>Instructions to Tenderers Clause – 6.16 Chapter 6</p>	<p>Validity of offer 90 days (Ninety days only) from the date of opening of tender.</p>
<p>Instructions to Tenderers Clause – 6.11.5 Chapter 6</p>	<p>Unit Price: Tenderer should submit firm price offer. Price quoted by the bidder shall remain fixed during the entire period of contract. The offer shall be firm in Indian Rupees. No Foreign exchange will be made available by the purchaser.</p>
<p>Instructions to Tenderers Clause – 6.25.3, Chapter 6</p>	<p>Power of Attorney: To be deposited in RailTel Office. For more details see Chapter 2-A , item 6 Each and every page of bid & tender document should be marked with numerical numbers and signed by authorized Representative of the firm. Power of attorney in favour of the signatory duly authorizing the signatory shall be enclosed in The bid. Page number of documents submitted in their offer must be given in the Check list in Chapter-10 of tender document.(scanned copy to be uploaded on TCIL portal)</p>
<p>Special Tender condition Clause – 3.4, Chapter 3</p>	<p>Issue of Advance Purchase Order &Supply Orders The validity of the Advance Purchase Order will be 12 months from date of issue.</p>

Special Tender condition Clause – 3.2, Chapter 3	Delivery Period Material is required to be delivered by the supplier to the consignee within 75 days of placement of supply order/Sub Purchase Order against Advance Purchase order.
General Tender condition Clause – 6.5.1, Chapter 6	Performance Bank Guarantee i) Performance Bank Guarantee of 2.5% of total value of the stores is required to be submitted and should be valid for 33 months (12 +18+3)* from the date of issue of APO to cover Validity of Advance Purchase Order, delivery period and Warranty period. ii) Performance Bank Guarantee of 7.5 % of Sub PO value of the stores is required to be submitted with validity 3 months beyond warranty period of supply.
Special Tender condition Clause – 8.28.0, Chapter 8	Warranty : The OFC is to be warranted for 18 months from date of delivery
Special Tender condition Clause – 3.5 Chapter 3	Bill passing & paying Authority: Executive Director/Regional General Manager (Concerned Region)
Consignee address	(BBNL C/O RailTel Corporation of India Ltd (address of RailTel Store to be advised by concerned RailTel Region.)
Billing Address	Will be given at the time of Issue of Purchase Order. Road Permits and Form C will be issued by BBNL
Instructions to Tenderers Clause – 6.25.4 Chapter 6	Authority and Address General Manager/Operations RailTel Corporation of India Ltd. Sector-44, Plot No.143, Gurgaon – 122003

* 12 months APO validity, 18 months warranty, 3 months extra.

Chapter - 2-A

E-tendering Instructions to Bidders

General

These Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as enclosed in Chapter- 6 of the Tender Document.

Submission of Bids only through online process is mandatory for this Tender.

E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, RailTel has decided to use the portal <https://www.tcil-india-electronictender.com> through

TCIL, a Government of India Undertaking. This portal is based on the most 'secure' and 'user friendly' software from Electronic Tender®. **A portal built using Electronic Tender's software is also referred to as ElectronicTender System® (ETS).**

Benefits to Suppliers are outlined on the Home-page of the portal.

1. Tender Bidding Methodology:

Sealed Bid System - 'Single Stage - Single Envelope': In this, bidder has to submit both Technical as well as Financial bid in single envelope "ONLINE."

2. Broad outline of activities from Bidders Perspective:

1. Procure a Digital Signing Certificate (DSC)
2. Register on Electronic Tendering System® (ETS)
3. Create Users and assign roles on ETS
4. View Notice Inviting Tender (NIT) on ETS
5. Download Official Copy of Tender Documents from ETS (Important)
6. Clarification to Tender Documents on ETS
 - Query to RailTel (Optional)
 - View response to queries posted by RailTel, as addenda.
7. Bid-Submission on ETS
8. Attend Public Online Tender Opening Event (TOE) on ETS.
9. View/Post-TOE Clarification posted by RailTel on ETS (Optional), Respond to RailTel's Post-TOE queries

For participating in this tender online, the following instructions need to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

3. Digital Certificates

For integrity of data and its authenticity/ non-repudiation of electronic records, and be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC). also referred to as Digital Signature Certificate (DSC), of Class 2 or above, issued by a Certifying Authority (CA) licensed by Controller of

Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

4. Registration

To make use of the Electronic Tender®portal ([https:// www.tcil-india-electronictender.com](https://www.tcil-india-electronictender.com)), vendor needs to register on the portal (if not registered earlier). Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal (<https://www.tcil-india-electronictender.com>), and click on the 'Supplier Organization' link under 'Registration' (on the Home Page), and follow further instructions as given on the site.

Pay Annual Registration Fee as applicable.

Note: After successful submission of Registration details and Annual Registration Fee (as applicable), please contact TCIL/ ETS Helpdesk (as given below), to get your registration accepted/activated.

TCIL Helpdesk

Contact Person Telephone/ Mobile

Helpdesk Executives 91-11- 26241790 **(Multiple lines)**

E-mail ID : ets_support@tcil-india.com

(Mobile Nos for Emergency only): 9868393775, 9868393717, 9868393792

RailTel Contact-1 (for general Information)

RailTel's Contact Person /Design.

Nitin Kumar Hundet, Sr.Manager/O&M

Telephone/ Mobile: 9717644466

E-mail ID nitinhundet@railtelindia.com

RailTel Contact-II (for general Information)

RailTel's Contact officer

Jagdeep Singh, GM/Operations

Telephone/ Mobile: 9779244100

E-mail ID: jagdeep@railtelindia.com

5. Bid related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on ETS.

Broad outline of submissions are as follows:

1. Submission of Bid Security/ Earnest Money Deposit (EMD)
2. Submission of digitally signed copy of Tender Documents/Addenda
3. Single Envelope (including Technical +Financial part)
The electronic envelope consists of Main bid and Electronic Form (both mandatory) and Bid Annexure (Optional).
4. Online response to General Terms & Conditions (GTC) and Special Terms & Conditions (STC)
5. (Optional) Online Submission of modification, substitution bids for technical or financial parts, or withdrawal bid.

NOTE: Bidder must ensure that after following above, the status of bid submission must become “Complete” indicating successful submission of the online bid.

6. Offline Submissions:

The bidder is required to submit the following documents offline to RailTel Corporation of India Ltd, Institutional Area Plot 143, Sector 44, Gurgaon before due date & time of submission of bids specified in covering letter of this tender document, in a Sealed Envelope. The envelope shall bear (the tender name), the tender number and the words ‘DO NOT OPEN BEFORE’ (due date & time).

- a) EMD-Bid Security** in Original, in favour of Railtel Corporation of India, Payable at New Delhi. (With Tender No., Name of Firm & Mob. No. written on back side of DD)
- b) DD/ Bankers cheque in original against payment of tender fee** in favour of Railtel Corporation of India, Payable at New Delhi.. (with Tender No., Due date of Opening of Tender, Name and contact No. of Firm written on back side of DD)
- c) Power of attorney** to be submitted in accordance with Clause – 6.25.3, Chapter 6, also see chapter 2-A, item 6
- d) In case bidder happens to be a NSIC bidder**, the documentary evidence for same shall be submitted.
- e) Duly filled & signed Integrity Pact Proforma** on Rs 100/- stamp paper (2 copies) (for the tender value exceeding Rs. 15 crores at a time) to be uploaded on TCIL website also.

NOTE: The Bidder has to upload the Scanned copy of all above original documents as Bid-Annexures during Online Bid-Submission.

7. Submission of Eligibility Criteria related documents

Eligibility criteria related documents viz. TSEC certificate, NSIC certificate and other documents as applicable shall also be scanned and submitted ON LINE. Copy of these documents shall also be submitted in RailTel before Tender opening date and time. Bids without these off line submissions will be summarily rejected.

8. Special Note on Security of Bids

Security related functionality has been rigorously implemented in ETS in a multi-dimensional manner. Starting with 'Acceptance of Registration by the Service Provider',

Provision for security has been made at various stages in Electronic Tender's software. Security related aspects as regard Bid Submission are outlined below:

As part of the Electronic Encrypter™ functionality, the contents of both the 'Electronic Forms' and the 'Main-Bid' are securely encrypted using a Pass-

Phrase created by the Bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is recommended that a separate Pass-Phrase be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

Typically, 'Pass-Phrase' of the Bid-Part to be opened during a particular Public Online Tender Opening Event (TOE) is furnished online by each bidder during the TOE itself, when demanded by the concerned Tender Opening Officers who will open the bid. Else Tender Opening Officer may authorize the bidder to open his bid himself. There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-tendering server/portal.

(Mandatory Additional Methods of passphrase submission):

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted to RailTel in a sealed envelope before the start date and time of the Tender Opening Event (TOE) along with other offline submissions.

9. Public Online Tender Opening Event (TOE)

ETS offers a unique facility for 'Public Online Tender Opening Event (TOE)'. Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organizations) duly authorized are requested to carry a Laptop and Wireless Connectivity to Internet.

Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on ETS. As soon as a Bid is decrypted with the corresponding 'Pass-Phrase' as submitted online by the bidder himself (during the TOE itself), salient points of the Bids are simultaneously made available for downloading by all participating bidders.

ETS has a unique facility of 'Online Comparison Chart' which is dynamically updated as each online bid is opened. The format of the chart is based on inputs provided by the Buyer for each Tender. The information in the Comparison Chart is based on the data submitted by the Bidders in electronic forms. A detailed Technical and/ or Financial Comparison Chart enhances Transparency. Detailed instructions are given on relevant screens.

ETS has a unique facility of a detailed report titled 'Minutes of Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/Downloading'.

There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

NOTE: In case of internet related problem at a bidder's end, especially during 'critical events' such as - a short period before bid-submission deadline, during online public tender opening event, during e-auction, it is the bidder's responsibility to have backup internet connections.

In case there is a problem at the e-procurement/ e-auction service-provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of RailTel by the bidders in time, then RailTel will promptly re-schedule the affected event(s).

10. Other Instructions

For further instructions, the vendor should visit the home-page of the portal (<https://www.tcil-india-electronictender.com>), and go to the User-Guidance Center.

The help information provided through 'ETS User-Guidance Center' is available in three categories - Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier organizations. Various links are provided under each of the three categories.

Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

11. The following KEY INSTRUCTIONS for BIDDERS' must be assiduously Adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
2. Register your organization on ETS well in advance of your first tender submission deadline on ETS.
3. While registering your organization on ETS Portal of TCIL, pl. make sure that the email id of Super user provided for registration and email-id on which Digital Signature Certificate of the Super user is issued are exactly the same.
4. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS.
5. Bidder should ensure that **official copy of tender document** has been downloaded by clicking the radio button for confirmation else e-Procurement system will not permit the bidder to participate in the tendering process.
6. Submit your bids well in advance of tender submission deadline on ETS as there could be last minute problems due to internet timeout, breakdown, etc.

10. Minimum Requirements at Bidders end

- Computer System with good configuration (Min P IV, 1 GB RAM, Windows XP)
- Broadband connectivity.
- Microsoft Internet Explorer 6.0 or above
- Digital Certificate (s) for users.

11. Vendors Training Program

One day training (10:00 to 17:00) on how to use the ETS Portal for e-Tendering would be provided. Training is optional. However, if a vendor has not already attended ETS Vendor Training earlier, it is highly recommended that the vendor attends this training positively to be able to submit the e-Tender smoothly without any problem.

Vendors are requested to carry a Laptop and Wireless Connectivity to Internet while attending the ETS Vendor Training.

Tentative Dates

Date of uploading of Tender document + 7 days

Venue :

RailTel Corporation of India Limited,
Plot No. 143, Sector-44, Opp. Gold Souk Mall,
Gurgaon -122003.

Vendors Training Charges :Rs. 2,500/-(Per Participant) per training day (plus Service Tax as applicable).

Mode of Payment of Fees: DD drawn in favour of M/s TCIL, New Delhi & payable at New Delhi.

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SPECIAL TENDER CONDITIONS

- 3.1.** The Tenderer shall quote Total all Inclusive Rate on C.I.P. destination basis clearly indicating the break up of rates, applicable duties and taxes, etc. as detailed in the offer form. Freight and Insurance charges have to be quoted for each state/UT of India.

The Tenderers shall also quote taxes, freight and insurance charges state wise as per Annexure-1, as the material may be subsequently required to be diverted to these states.

3.2 Delivery Period: -

Material is required to be delivered by the supplier to the consignee within 75 days of placement of supply order/Sub Purchase Order against Advance Purchase order

3.3 ELIGIBILITY CRITERIA:

- 3.3.1** The bidders should be Indian Companies registered to manufacture the tendered item in India and have obtained clearance from Reserve Bank of India, wherever applicable. In addition they should meet the following criteria: The Bidders should:

- 3.3.1.1(a)** have got Type Approval Certificate (TAC) from Telecom Engineering Centre (TEC), New Delhi or Technical Specification Evaluation Certificate (TSEC) from Quality Assurance Circle, BSNL, Bengaluru, against the technical specification of 24 fibres Optical Fibre Cable (24F OFC) mentioned in Section-IV-C of this document.

OR

- 3.3.1.1 (b)** have applied for TSEC in QF-103 form to Quality Assurance Circle ,BSNL, Bengaluru or in form – B to TEC New Delhi for their product against the technical specifications of 24F OFC mentioned in Section-IV of this document at least one day before the opening of the tender. The registration no. allotted for the TSEC purpose by QA Circle BSNL Bengaluru or for TAC purpose by TEC New Delhi shall be submitted along with the bill. However, only type approved OFC as per above specifications will be accepted, which will have to be obtained before commencing supplies by the bidder.

- 3.3.1.2** have executed Commercial order(s) issued by DOT/ BSNL/ MTNL/ State Government/ PSUs/Telecom Service Providers for the OF Cable (24 Fibre and above) for a minimum total quantity of 2,000 Route Km during the last three (3) financial years i.e.2013-14, 2014-15 and 2015-16 (till the last date of submission of

bid). The bidders shall submit certificate(s) from the end user(s) for the satisfactory working/ performance of the OF Cable supplied by them for the quantities required under this clause.

- 3.3.2 All tendered items other than OF Cable i.e. accessories, etc. shall be type approved against the respective technical specifications as per TEC GRs mentioned in the table below and the valid TAC/ TSEC of the quoted items of accessories shall be submitted along with the bid. TSEC obtained against BBNL tender no. BBNL/MM/2013/001 issued on 03/04/2013 will be acceptable to meet eligibility criteria. For such accessories, i.e. joint closures, splitters and termination box, the bidder may quote for such models of accessories for which, TSEC in QF-103 Form to Quality Assurance Circle, BSNL, Bengaluru or in Form-B to TEC, New Delhi have been applied for against the technical specifications as per respective TEC GRs at least one day before the opening of the tender. The registration number allotted for the TSEC purpose by QA Circle BSNL Bengaluru or for TAC purpose by TEC New Delhi shall be submitted along with the bid. However only type approved accessories as per below specifications, will be accepted, which will have to be obtained before placement of APO. If the bidder is not the manufacturer of such tendered items, then the bidder shall enter into legally binding agreement(s) with the manufacturers of the tendered items and the copy of such agreement(s) shall be furnished with the bid. It shall be bidder's responsibility to ensure timely availability of valid TSEC/ TAC against such third-party products.

The Patch Cords should also be TAC/ TSEC/ CACT (SAC) approved or have been applied for TAC/ TSEC/ CACT (SAC) in appropriate forms to TEC New Delhi or QA Circle BSNL Bengaluru at least one day before the opening of tender against the technical specification mentioned in the table below. The type approval certificate or the registration certificate issued by TEC/ QA Circle BSNL would be submitted with the bid. Other conditions as mentioned above and applicable for other accessories would be applicable for Patch Cords also.

S. No.	Accessory	TEC GR No.
1.	24F Splice Closure (buried type) for making Straight Joints and Branch Joints for branching 6F/12F/48F cables with provision for mounting splitters.	TEC GR No. TEC/GR/TX/OJC-002/03/APR-2010 with latest amendment, if any
2	Splitters 1:8 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter	The Splitters shall meet the characteristics as per TEC GR No-GR/TX/OPT/001/ 01 APRIL 2012. All the fibers used inside the splitters shall be compliant to TEC GR for G.652D/G.657A OF Cable.
3.	Splitters 1:4 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter	

4.	Splitters 1:2 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter.	
5.	Patch Cord 5 M. length with SC-APC connector (BIF G.657A Fibre)	TEC GR No TEC/GR/Tx/OFJ-01/05 NOV 2009
6.	24 F FDMS (Indoor) with patch panel, wall mountable	GR No. GR/FDM-01/02 April 2007 TYRE-IIIA with the latest amendment if any It should be wall mounted and compact with SC-PC splicing cum patching panel for terminating loose tube type cable.
7.	24F Fibre Termination Box(FTB) with patch panel having 4 SC-APC adapters & wall mountable	TEC GR No. GR/TX/FTB-02/02 APR-2010 (type II) with latest amendment, if any

3.3.3 Full quantity i.e. 100% of the Optical Fibre Cable and accessories to be supplied against this tender shall be domestically manufactured and the minimum domestic Value Addition (VA) to qualify as Domestically Manufactured Telecom Product shall be 45% for the financial year 2015-16. The formula for calculation of Value Addition for telecom products shall be as notified by the Department of Electronics and Information Technology from time to time. The bidder shall submit a self-certification certifying that the domestic Value Addition in the OF Cable and accessories being supplied to BBNL is 45% or more.

3.3.4 The bidders shall submit necessary documentary proof showing that they meet the eligibility criteria along with their tender bid. All documents submitted will also be self-attested.

3.3.5 Integrity Pact Program (for Tender value exceeding Rs. 15 crores at a time)

- a) RailTel has adopted Integrity Pact Program and for implementation thereof all tenders relating to procurement of OFC, quad cable, pre-fab shelters, electronic equipments and its installation and/or commissioning etc and other item(s) or activity/activities proposed to be carried out or required by the Company **for the value exceeding Rs. 15 crores at a time** including for repair and maintenance of cable/network and any other items required for special works assigned to RailTel will be covered under the Integrity Pact Program and the **vendors are required to sign the IP (Integrity Pact) documents in duplicate and submit the same to RailTel along with the bids (off line documents, on or before tender opening date and Time)**

- b) Only those vendors who have purchased the tender document and signed the IP document can send their grievances, if any, to the Independent External Monitors (IEMNs) through the nodal officer, i.e. Chief Vigilance Officer (CVO), RailTel.

Name of IEMs and contact details:

- | | | |
|-----|---------------------------------|--|
| i) | Sh. Ashok Kumar Garg, New Delhi | e-mail: akgarg1654@gmail.com |
| ii) | Sh. Jayanta Kumar Roy, Kolkata | e-mail: jkroy.its@gmail.com |

Name & contact details of Nodal Officer (IP) in RailTel:

Sh. Arun Jain, Chief Vigilance Officer
e-mail: arun@railtelindia.com

- c) If the order, with total value equal to or more than the threshold value, is split to more than one vendor and even if the value of PO placed on any/each vendor(s) is less than the threshold value, IP document having been signed by the vendors at bid stage itself, the Pact shall continue to be applicable.
- d) Bidder of Indian origin shall **submit the Integrity Pact (in 2 copies) on a non-judicial stamp paper of Rs. 100/- duly signed by the person signing the bid.** If the bidder is a partnership or a consortium, the Integrity Pact shall be signed by all the partners or consortium members.
- e) Bidder of foreign origin may submit the Integrity Pact on its company's letterhead, duly signed by the person signing the bid.
- f) The 'Integrity Pact' **shall be submitted by the Bidder duly signed in all pages along with the OFF LINE documents Bid in a separate envelope, duly superscripted with 'Integrity Pact'. Tender received without signed copy of the Integrity Pact document will be liable to be rejected.** Proforma for signing the Integrity Pact is available in Chapter-9 of this tender document.
- g) One copy of the Integrity Pact shall be retained by RailTel and the 2nd copy will be issued to the representative of the bidders during bid opening. If the Bidders representative is not present during the Bid opening, the 2nd copy shall be sent to the bidder by post/courier.

3.4 Issue of Advance Purchase Order and Supply Orders.

- 3.4.1** The quantities of items indicated in the schedule of Requirements, are indicative. Purchaser will issue an Advance Purchase Order to the successful bidder for the quantities indicated in Schedule of Requirements. This Advance Purchase Order would be valid as per bid data sheet of chapter 2. Depending on the actual requirement at different locations at different times, Purchaser will issue four Supply Orders with minimum quantity of each supply order to 25% of total quantity of Advance

PO. The supplier will have to honour all the supply orders issued within the currency of Advance PO and complete the supplies within the contracted delivery period.

- 3.4.2** The issue of Advance purchase order in favour of the successful bidder shall constitute the intention of the purchaser to enter into contract with the bidder. The bidder shall have to furnish the acceptance along with security deposit within 15 days of issue of Advance P.O.

3.5 Bill passing & Paying Authority:-

Bills will be passed & paid by the Regional Offices under whose jurisdiction consignee is located.

3.6 SPLITTING OF QUANTITY-

The quantity to be ordered will be split by the Purchaser amongst various tenderers for ensuring better availability of material keeping in view the vital/critical nature of item, quantity to be procured, price and past performance of the firms with following condition:

If the ordered quantity of the consignee is less than 100 Kms, there will be no splitting of quantity.

3.6.1 CRITERIA FOR SPLITTING OF TENDER QUANTITY:

The following splitting criteria will be applicable:-

Purchaser would distribute the procurable quantity on three eligible tenderers as per the following formula.

Such distribution/splitting of the tendered/procurable quantity and the quantity distribution will depend upon the differential of rates quoted by the tenderers in the manner detailed below:-

Price differential between Eligible L1 and L2	Quantity distribution ratio between Eligible L1 and L2
Up to 3%	60: 40
More than 3% and up to 5%	65:35
More than 5%	Distribution shall be as per para 3.6.1.1

- 3.6.1.1** If difference between Eligible L-1 & L-2 is more than 5%, splitting of the quantity is required to be done by ordering on tenderers higher than the Eligible L1 & L2 tenderer, then the quantity distribution proportion amongst the tenderers will be L1:L2:L3::70:20:10.

- 3.6.1.2** While distributing as above, the purchaser shall offer the lowest acceptable rate for bulk ordering to the higher tenderer(s). In the event of rejection of such counter offer(s), the purchaser shall further decide on the placement of order as detailed below:

If Eligible L-1 or L-2 or L-3 tenderer does not accept the offer/counter offer, the calculation will be as per the case which is described below-

- a). If L3 does not accept the counter offer, the quantity allotted to him shall be redistributed additionally between L-1 & L-2 again as per formula given – $\text{Quantity in \% of L-1} \times \text{Quantity in \% of L-3} / \text{Quantity in \% of total of L1+L2}$.
- b). If L2 does not accept the counter offer, the quantity allotted to him shall be redistributed additionally between L-1 & L-3 again as per formula given – $\text{Quantity in \% of L-1} \times \text{Quantity in \% of L-2} / \text{Quantity in \% of total of L1+L3}$.
- c). If L1 does not accept the offer, the tender will be discharged.

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Chapter 4

Special (Technical) Conditions of Contract and Technical Specifications

IV.C.1. Quality Assurance and Testing:

- (i) The optical fibre cable and the accessories will be inspected and tested by BSNL as per the technical specifications given in this chapter.
- (ii) The supply will be accepted only after Quality Assurance tests are carried out by BSNL Quality Assurance Wings as per prescribed schedule.
- (iii) Only the Supplies made in full, “as per purchase order”, during delivery period will be deemed to have been supplied within the scheduled delivery period.
- (iv) In case of any Quality issue, manufacturers would have to replace the defective material, in full, by good material duly passed by QA.

IV.C.2. The bidders would be required to quote for all the SOR items for a particular state. The bid may be rejected if not quoted accordingly.

IV.C.3 Deleted

IV.C.4. The OFC will be supplied as per the distributed quantities to each ultimate consignee which will be intimated at the time of APO/ PO. The exact length of the optical fibre cable to the ultimate Consignee should ideally be as specified. However, the quantity supplied shall not be in excess or deficit by at most 1 Km at each consignee for each PO which will include cumulative total of all supplies against the PO. Any variation in quantities beyond 1 Km shall not be acceptable.

IV.C.5. The OFC length in a drum shall be 2 Km ± 10 %. The payments will be made on the actual supplied length.

IV.C.6. OFC drums with short length of up to 500 Mts (max) from standard length i.e. 2KM per drum shall be permitted against maximum 5% of total supply for each consignee against the P.O. on a cumulative basis.

IV.C.7. Consignee delivery requirement shall be given in multiples of standard length (i.e. 2 Kms). Any consignee delivery length specifically mentioned by the purchaser shall be considered as the standard length.

Technical Specifications of Accessories

Sl. No.	Item	TEC GR No.
A. Optical Fibre Cable		
1.	Metal-Free Optical Fibre Cable 24 Fibre (G.652D Fibre) with suitable sheath and glass roving	As per technical specifications mentioned in subsequent clauses
B. Accessories		
1.	24F Splice Closure (buried type) for making Straight Joints and Branch Joints for branching 6F/12F/48F cables with provision for mounting splitters.	<p>TEC GR No. TEC/GR/TX/OJC-002/03/APR-2010 with latest amendment, if any.</p> <p><u>It should have the IP rating 68.</u> The closure should have the provision for splicing of fibers of 12/24/48F cables to pig tails of the splitters (for branch joints closures with splitters) and to individual fiber of loose tube type cables (for FDMS without splitters). It should have the provision for oval shape entry port for entry of loop of 12F/24F/48F cable and adequate number of circular entry ports so that minimum 2-3 cables of size 12F can be accommodated.</p>
2.	Splitters	
2.1	Splitters 1:8 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter.	<p>The Splitters shall meet the characteristics as per TEC GR No- GR/TX/OPT/001/ 01 APRIL 2012. All the fibers used inside the splitters shall be compliant to TEC GR for G.652D/G.657A OF Cable.</p> <p>(i) The splitter shall be mounted in the splice tray.</p> <p>(ii) The fibre length at the input and output ends of the splitter shall be 1 mtr long.</p> <p>(iii) The splitter wherever used shall be mounted in the splice tray which shall be housed in the splice closure/FDMS/FTB as applicable.</p> <p>(iv) The splitters are to be supplied without connectors.</p> <p>(v) The splitter can be with 250µm/ 900 µm</p>
2.2	Splitters 1:4 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter.	
2.3	Splitters 1:2 with pig tails, mountable inside the FTB/FDMS with pig tails each 1 meter.	
3.	Patch Cord 5 M. length with SC-APC connector (BIF G.657A Fibre)	TEC GR No TEC/GR/TX/OFJ-01/05. NOV 2009

Sl. No.	Item	TEC GR No.
4.	24 F FDMS (Indoor) with patch panel, wall mountable	GR No. GR/FDM-01/02 April 2007 TYRE-III A with the latest amendment if any It should be wall mounted and compact with SC-PC splicing cum patching panel for terminating loose tube type cable.
5.	24F Fibre Termination Box(FTB) with patch panel having 4 SC-APC adapters & wall mountable	TEC GR No. GR/TX/FTB-02/02 APR-2010 (type II) with latest amendment, if any. Each of the 4 SC-APC adapters on the patch panel will have pre-installed minimum 1 mtr long SC-APC pigtail on one side

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Technical Specifications for Metal Free Optical Fibre Cable with Double HDPE Sheath and Glass Yarn Armouring (G.652D)

PART I – TECHNICAL SPECIFICATIONS

1.0 Introduction:

This document describes the requirements of Metal free Optical fibre cable for underground installation in ducts. The cable shall have double HDPE jacketing anti-rodent & anti-termite with glass yarn in between as reinforcement. The optical fibre cable shall be suitably protected for the ingress of moisture by Flooding Jelly /WS yarn and WS tape. The raw material used in the cable shall meet the requirements as specified in the TEC GR for raw materials (GR No. TEC/GR/TX/ORM-01/04 SEP-09).

2.0 Functional Requirement:

- 2.1 The design and construction of Optical fibre cable shall be inherently robust and rigid under all conditions of installation, operation, adjustment, replacement, storage and transport.
- 2.2 The Optical fibre cable shall be able to work in a saline atmosphere in coastal areas and should be protected against corrosion.
- 2.3 Life of cable shall be at least 25 years. Necessary statistical calculations shall be submitted by the manufacturer, based upon life of the fibre and other component parts of the cable. The cable shall meet the cable aging test requirement.
- 2.4 It shall be possible to operate and handle the Optical fibre cable with tools as per GR No. GR/OFT-01/03 APR 2006 and subsequent amendment, if any. If any special tool is required for operating and handling the optical fibre cable the same shall be provided along with the cable.
- 2.5 The Optical fibre cable supplied shall be suitable and compatible to match with the dimensions, fixing, terminating & splicing arrangement of the splice closure. The cable supplied shall also meet other requirement of splice closure (GR No. TEC/GR/TX/OJC-002/03/APR-2010) and subsequent amendments, if any.
- 2.6 The manufacturer shall submit an undertaking that the optical and mechanical fibre characteristics shall not change during the lifetime of the cable against the manufacturing defects.
- 2.7 It is mandatory that Optical Fibre Cable supplied in an offered lot is

manufactured from a single source of optical fibres.

- 2.8 The Optical fibre cable shall be manufactured so as to protect the cable from rodent and termite. The rodent resistance is an important requirement for the cable. The manufacturer shall give an undertaking to this effect.

3.0 Technical Requirements of Optical Fibres:

Single Mode Optical Fibre used in manufacturing optical fibre cables shall be as per ITU-T Rec. G 652 D. The specifications of optical fibres are mentioned below:

- 3.1 Type of fibre : Single mode (Section -I of the GR No. TEC/GR/TX/ORM-01/04/SEP-09 and subsequent amendments, if any)
(Wavelength band optimized nominal 1310 nm)

3.2 Geometrical Characteristics:

- 3.2.1 MFD : 8.8-9.8 μm
3.2.2 Cladding Diameter : 125 $\mu\text{m} \pm 1.0 \mu\text{m}$
3.2.3 Cladding Non-circularity : $\leq 1\%$
3.2.4 Core Clad concentricity error : $\leq 0.6 \mu\text{m}$
3.2.5 Diameter over primary coated with double UV cured acrylate. : 245 $\mu\text{m} \pm 10 \mu\text{m}$
(Shall be measured on un coloured fibre)

Note: The thickness of colour coating may be over and above the values specified above, if the manufacturer adopts separate UV-cured colouring process (to colour the un coloured fibres) other than the on line integrated colouring process (of secondary layer of primary coating) of the fibres, during fibre manufacturing.

- 3.2.6 Coating / Cladding Concentricity : $\leq 12 \mu\text{m}$

3.3 Transmission Characteristics:

3.3.1 Attenuation:

- a) Fibre attenuation before cabling
- i). At 1310 nm : ≤ 0.34 dB/Km
 - ii). Between 1285 to 1380 nm : ≤ 0.37 dB/Km
 - iii). Between 1390 to 1525 nm : \leq Value at 1310 nm
 - iv). At 1550 nm : ≤ 0.21 dB/Km
 - v). Between 1525 to 1625 nm : ≤ 0.24 dB/Km

- b) Water Peak Attenuation before cabling between 1380-1390 nm : \leq Value at 1310nm

Note:

1. Attenuation in the band 1380-1390nm shall be checked at every 2nm after Hydrogen ageing as per IEC 60793-2-50. Hydrogen ageing test is to be carried out by CACT, Bangalore or any other recognized laboratory for type test.
2. Sudden irregularity in attenuation shall be less than 0.1 dB
3. The spectral attenuation shall be measured on un-cabled fibre.
4. The Spectral attenuation in the 1250 nm–1625 nm band shall be measured at an interval of 10nm and the test results shall be submitted.

- c) Fibre attenuation after cabling
- i) At 1310 nm : ≤ 0.36 dB/km
 - ii) At 1550 nm : ≤ 0.23 dB/Km
 - iii) At 1625 nm : ≤ 0.26 dB/Km

- d) Water Peak Attenuation after cabling
At 1383nm \pm 3nm : \leq Value at 1310 nm

3.3.2 Dispersion:

- a) Total Dispersion
- i) In 1285-1330 nm band : ≤ 3.5 ps/nm.km
 - ii) In 1270-1340 nm band : ≤ 5.3 ps/nm. Km
 - iii) At 1550 nm. : ≤ 18.0 ps/nm. Km
 - iv) At 1625 nm : ≤ 22.0 ps/nm. Km

Note: The dispersion in the 1250 nm–1625 nm band shall be measured on un-cabled fibre at an interval of 10nm and the test results shall be submitted.

- b) Polarization mode dispersion at 1310 & 1550 nm
- i) Fibre : ≤ 0.2 ps/ $\sqrt{\text{km}}$
 - ii) Cabled Fibre : ≤ 0.3 ps/ $\sqrt{\text{km}}$

Note: Measurement on un-cabled fibre may be used to generate cabled fibre statistics and correlation established.

- c) Zero Dispersion Slope : ≤ 0.092 ps/(nm² Km)

- d) Zero dispersion wave length range : 1300 -1324 nm

3.3.3 **Cut off wavelength for fibres used in cables** : 1320 nm Max.

Note: The above cut off wavelength is w.r.t. 2M sample length of fiber.

3.3.4 **Cable Cut off wavelength** : 1260nm Max.

3.4 **Mechanical Characteristics:**

3.4.1 Proof test for minimum strain level : 1%
(Test method IEC–60793-1– 30)

3.4.2 Peak Stripability force to remove primary : $1.3 \leq F \leq 8.9$ N
coating of the fibre. (Test method IEC–60793-1-32)

Note: The force required to remove 30 mm \pm 3 mm of the fibre coating shall not exceed 8.9 N and shall not be less than 1.3 N.

3.4.3 Dynamic Tensile Strength (Test method IEC–60793-1-31)

- a) Un-aged : ≥ 550 KPSI (3.80 Gpa)
- b) Aged : ≥ 440 KPSI (3.00 Gpa)

3.4.4 Dynamic Fatigue (Test method IEC- 60793 - 1-33) : ≥ 20

3.4.5 Static Fatigue (Test method IEC- 60793 - 1-33) : ≥ 20

3.4.6 Fibre Macro bend
(Test method FOTP– 62/ IEC- 60793-1-47)

- a) Change in attenuation when fiber is coiled with: ≤ 0.05 dB at 1550nm
100 turns on 30 ± 1.0 mm radius mandrel : ≤ 0.5 dB at 1625nm

- b) Change in attenuation when fiber is coiled with: ≤ 0.5 dB at 1550nm
1 turn around 32 ± 0.5 mm diameter mandrel: ≤ 1.0 dB at 1625nm

3.4.7 Fibre Curl : ≥ 4 meters radius of curvature
(Test method as per IEC 60793-1-34)

3.5 **Material Properties:**

3.5.1 Fibre Materials:

- a) The substances of which the fibres are made: To be indicated by manufacturer

- b) Protective material requirement:

- (i) The physical and chemical properties of the material used for the fibre primary fibre coating and for single jacket fibre. : It shall meet the requirement of fibre coating stripping force as per clause No. 3.4.2
- (ii) The best way of removing protective coating material. : To be indicated by the manufacturer

c) Group refractive Index of fibre manufacturer

: To be indicated by the

Note: The manufacturer shall indicate the variation in group refractive index of fibre during bulk production.

3.6 Environmental Characteristic of Fibre (Type test):

3.6.1 Operating Temperature

(Test Method IEC – 60793 – 1-52)

Temperature Dependence of Attenuation : - 60°C to +85°C

Induced Attenuation at 1550 nm at -60°C to +85°C: ≤ 0.05 dB/km

3.6.2 Temperature – Humidity Cycling

(Test Method /EIA/TIA-455-73)

Induced Attenuation at 1550 nm at -10°C to +85°C: ≤ 0.05 dB/km and 95% relative humidity.

3.6.3 Water Immersion 23°C

(Test method IEC- 60793 – 1 -53)

Induced Attenuation at 1550 nm due to Water Immersion at $23 \pm 2^\circ\text{C}$: ≤ 0.05 dB/km

3.6.4 Accelerated Aging (Temperature) 85°C

(Test method IEC- 60793 – 1- 51)

Induced Attenuation at 1550 nm due to Temperature Aging at $85 \pm 2^\circ\text{C}$: ≤ 0.05 dB/km

3.6.5 Retention of Coating Color

(Test method IEC- 60793 – 1 - 51)

Coated Fiber shall show no discernible change in color, when aged for relative humidity. : 30 days at 85°C with 95% Humidity and 20 days in 85°C dry heat.

3.7 Colour Qualification and Primary coating Test:

3.7.1 Colour Qualification Test:

a) MEK Rub Test (Methyle Ethyl Ketone Test):

To be tested by using soaked (Solvent) tissue paper for ten strikes unidirectional on 10 cm length of fibre. No colour traces shall be observed on the tissue paper after testing.

b) Water immersion Test (Type Test):

To be tested for coloured fiber for 30 days. After the test colour qualification, attenuation measurement & strippability test are to be taken.

3.7.2 Primary coating Test:

a) Fourier Transform Infrared Spectroscopy (FTIR) Test:

To be tested to check the curing level of coating on the surface of natural fibre. The curing level shall be better than 90%.

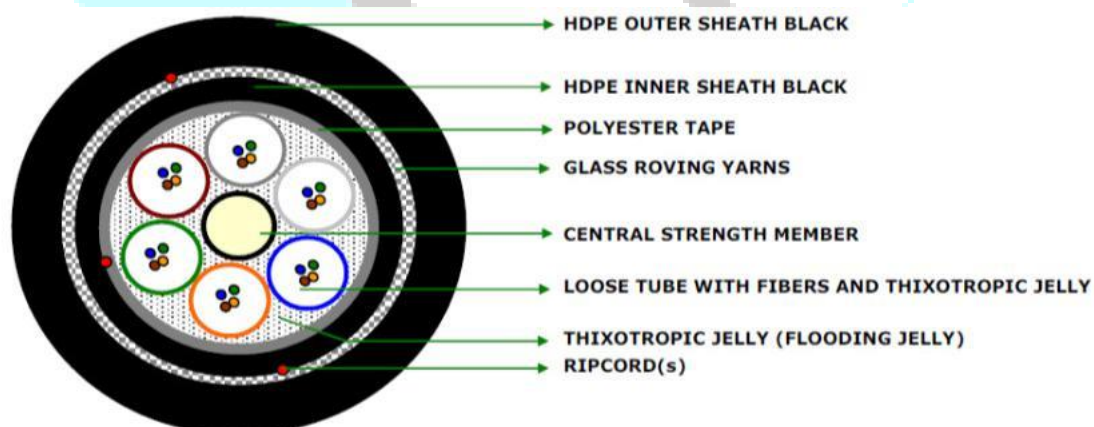
b) Adhesion Test:

To be tested by using soaked (Solvent) tissue paper for ten strokes unidirectional on 10 cm length of fibre. No coating shall be observed on the tissue paper after testing.

3.8 Optical Fibre Cable Construction Specifications for Wet core (Type-I) which will be procured through this tender:

General: The Metal Free optical fibre cable shall be designed to the parameters mentioned in Annexure-I. The manufacturer shall submit designed calculations and the same shall be studied and checked.

TYPICAL STRUCTURAL DRAWING FOR 24 FIBRE OF WET CORE CABLE



3.8.1 Secondary Protection: The primary coated fibres may be protected by loose packaging within tube, which shall be filled with thixotropic jelly. The dimensions of tube shall be as per Annexure-I.

3.8.2 Number of fibres in cable: 24

3.8.3 Strength Member: Solid FRP non - metallic strength member shall be used in the center of the cable core. The strength member in the cable shall be for strength and flexibility of the cable and shall have anti buckling properties. The FRP shall keep the fibre strain within permissible values. The size of FRP shall be as per Annexure – I.

3.8.4 Cable Core Assembly: Primary coated fibres in loose tubes stranded together around a central strength member using helical or reverse lay techniques shall form the cable core. The dimensions of FRP and stranding pitch shall be as per annexure - I.

3.8.5 Core Wrapping: The main cable core containing fibres shall be wrapped by a layer / layers of Polyester foil/ tape. The nylon/polyester binder thread shall be used to hold the tape, if required. The core wrapping shall not adhere to the secondary fibre coating and shall not leave any kink marks over the loose tube.

3.8.6 Moisture barrier (protection): The main cable core (containing fibres & core wrapping) shall be protected by thixotropic flooding compound (jelly) having properties of non hygroscopic dielectric material.

3.8.7 Filling and Flooding compound: The filling/flooding compound used in the loose tube and in the cable core shall be compatible to fibre, secondary protection of fibre, core wrapping and other component part of the cable. The drip point shall not be lower than +70°C. The fibre movement shall not be constrained by stickiness & shall be removable easily for splicing. Reference test method to measure drop point shall be as per ASTM D 566. The thixotropic filling/flooding compound (jelly) shall be as per the GR No. TEC/GR/TX/ORM-01/04/SEP-09 and subsequent amendment issued, if any.

3.8.8 Inner Sheath: A non-metallic moisture barrier sheath may be applied over and above the cable core. The core shall be covered with tough weather resistant High Density Polyethylene (HDPE) sheath, black in colour (UV Stabilized) and colour shall conform to Munsell colour standards. Thickness of the sheath shall be uniform & shall not be less than **1.2 mm**. The sheath shall be circular, smooth, free from pin holes, joints, mended pieces and other defects. Reference test method to measure thickness shall be as per IEC 189 para 2.2.1 and para 2.2.2.

Note: HDPE material, black in colour, from the finished cable shall be subjected to following tests (on sample basis) and shall confirm to the requirement of the material as per GR No. TEC/GR/TX/ORM-01/04 SEP.09.

- i) Density
- ii) Melt flow index
- iii) Oxidative Induction time
- iv) Carbon black content
- v) Carbon black dispersion
- vi) ESCR
- vii) Moisture content
- viii) Tensile strength and elongation at break

- ix) Absorption Coefficient
- x) Brittleness Temperature

3.8.9 Glass Reinforcement: Impregnated Glass Fibre Reinforcement are used to achieve the required tensile strength of the optic fibre cables over the cable inner sheath to provide peripheral reinforcement along with Solid Rigid FRP Rod in the centre at cable core. These flexible strength members shall be **Non-water blocking type**. The use of Solid Rigid FRP Rod(s) is mandatory in Optical Fibre cable design. Impregnated Colour Coated Glass Fibre Reinforcement used shall be equally distributed over the periphery of the cable inner sheath. It shall be applied **helically** and shall provide full coverage to inner sheath to provide rodent protection. The quantity of the Impregnated Glass fibre Reinforcement used 20 Kg per km length of the cable along with its dimensions shall be as per Annexure-I. The specification of the glass roving shall be as per Section XII of GR No. TEC/GR/TX/ORM-01/04 SEP.09 and as per other details given in the Annexure –I.

3.8.10 Outer Sheath: A non-metallic moisture barrier sheath (black in colour) shall be applied over the inner sheath, which shall consist of tough weather resistant made High Density Polyethylene compound (HDPE) which is Anti-termite. The outer sheath shall be UV stabilized and the colour shall confirm to Munsell colour standards. The thickness of the outer sheath shall not be less than **1.6mm**. The outer sheath shall be uniform, circular, smooth, free from pin holes, joints mended pieces and other defects. The reference test method to measure thickness shall be as per IEC 811-5-1. Anti termite dopant shall be added in the outer sheath to resist termite attack on the cable.

Note: HDPE material from finished product shall be subjected to following tests (on sample basis) and shall confirm to the requirement of the material as per the GR no. TEC/GR/TX/ORM-01/04/SEP-09 (Section-III):

- i) Density
- ii) Melt flow index
- iii) Oxidative Induction time
- iv) Carbon black content
- v) Carbon black dispersion
- vi) ESCR
- vii) Moisture content
- viii) Tensile strength and elongation at break
- ix) Absorption Coefficient
- x) Brittleness Temperature

Note: The outer jacket of HDPE shall be able to protect the cable from attack by termites.

Manufacturer shall provide the details of doping material used and same shall be verified during bulk testing. The outer sheath shall be termite protected. The surface of the sheath shall be smooth and free of defects such as cracks, blisters, etc. The cable shall be rodent protected. As specified in various clauses of the Technical specifications of the OF cable, it is to be clarified that the HDPE Outer Jacket shall be anti-termite with/without dopants. Addition of dopants for anti-rodent property is optional. The tests as per clause 4.20 shall be carried out as applicable.

3.8.11 Cable diameter: The finished cable diameter shall be as per Annexure – I.

3.8.12 Cable Weight: The nominal cable weight shall be as per Annexure – I.

3.8.13 RIP Cord:

- a) Three suitable ripcords shall be provided in the cable, which shall be used to open both HDPE sheath of the cable. Two ripcords shall be placed diametrically opposite each other below the outer Jacket & one ripcord shall be placed below inner sheath. It shall be capable of consistently slitting the sheath without breaking for a length of 1meter at the installation temperature. The ripcords (3ply & twisted) shall be properly waxed to avoid wicking action and shall not work as water carrier.
- b) The ripcords used in the cable shall be readily distinguishable from any other components utilized in the cable construction.

4.0 Mechanical Characteristics and Tests on Optical Fibre Cable:

(Note: All observations are to be taken at 1310nm and 1550nm wavelengths)

4.1 Tensile strength Test:

Objective: This measuring method applies to optical fibre cables which are tested at a particular tensile strength in order to examine the behaviour of the attenuation as a function of the load on a cable which may occur during installation.

Method: IEC 60794-1-2-E1.

Test Specs: The cable shall have sufficient strength to withstand a load of value $T (N) = 9.81 \times 2.5 W$ Newton or 2670 N whichever is higher (Where W-mass of 1 Km of cable in Kg). The load shall be sustained for 10 minutes and the strain of the fibre monitored.

Requirement: The load shall not produce a strain exceeding 0.25% in the fibre and shall not cause any permanent physical and optical damage

to any component of the cable. The attenuation shall be noted before strain and after the release of strain. The change in attenuation of each fibre after the test shall be ≤ 0.05 dB both for 1310 nm and 1550 nm wavelength.

4.2 Abrasion Test:

Objective: To test the abrasion resistance of the sheath and the marking printed on the surface of the cable.

Method: IEC-60794-1-2-E2 or by any other international test method

Test Specs: The cable surface shall be abraded with needle (wt. 150 gm) having diameter of 1 mm with 500 grams weight (Total weight more than 650 gms)

No. of cycles	:	100
Duration	:	One minute (Nominal)

Requirement: There shall be no perforation & loss of eligibility of the marking on the sheath.

4.3 Crush Test (Compressive Test):

Objective: The purpose of this test is to determine the ability of an optical fibre cable to withstand crushing.

Method: IEC 60794-1-2-E3.

Test Specs: The fibres and component parts of the cable shall not suffer permanent damage when subjected to a compressive load of 2000 Newton applied between the plates of dimension 100 x 100 mm. The load shall be applied for 60 Secs. The attenuation shall be noted before and after the completion of the test.

Requirement: The change in attenuation of the fibre after the test shall be ≤ 0.05 dB both for 1310 nm and 1550 nm wavelength.

4.4 Impact Test:

Objective: The purpose of this test is to determine the ability of an optical fibre cable to withstand impact.

Method: IEC 60794-1-2-E4.

Test Specs: The cable shall have sufficient strength to withstand an impact caused by a mass weight of 50 Newton, when falls freely from a height of 0.5 meters. The radius R of the surface causing impact shall be 300 mm. 10 such impacts shall be applied at the same place. The attenuation shall be noted before and after the completion of the test.

Requirement: The change in attenuation of the fibre after the test shall be $\leq 0.05\text{dB}$ both for 1310 nm and 1550 nm wavelength.

4.5 Repeated Bending:

Objective: The purpose of this test is to determine the ability of an optical fibre cable to withstand repeated bending.

Method: IEC 60794-1-2-E6.

Test Specs: The cable sample shall be of sufficient length (5 m minimum) to permit radiant power measurements as required by this test. Longer lengths may be used if required.

Parameters:

Weight	:	5 Kg
Minimum distance from Pulley centre to holding device	:	216mm
Minimum distance from Wt. to Pulley centre	:	457mm
Pulley Diameter	:	20 D (D - cable diameter)
Angle of Turning	:	90°
No. of cycles	:	30
Time Required for 30 cycles	:	2 min

Requirement: During the test no fibre shall break and the attenuation shall be noted before and after the completion of the test. The change in attenuation of the fibre after the test shall be $\leq 0.05\text{ dB}$ both for 1310 nm and 1550 nm wavelength.

4.6 Torsion Test:

Objective: The purpose of this test is to determine the ability of an optical fibre cable to withstand torsion.

Method: IEC 60794-1-2-E7.

Test Specs: The length of the specimen under test shall be 2 meters and the load shall be 100 N. The sample shall be mounted in the test apparatus with cable clamped in the fixed clamp sufficiently tight to prevent the movement of cable sheath during the test. One end of the cable shall be fixed to the rotating clamp which shall be rotated in a clock wise direction for one turn. The sample shall then be returned to the starting position and then rotated in an anti-clock wise direction for one turn and returned to the starting position. This complete movement constitutes one cycle. The cable shall withstand 10 such complete cycles. The attenuation shall be noted before and after the completion of the test.

Requirement: The cable shall be examined physically for any cracks tearing on the outer sheath and for the damage to other component parts of the cable. The twist mark shall not be taken as damage. The change in attenuation of the fibre after the test shall be ≤ 0.05 dB both for 1310 nm and 1550 nm wavelength.

4.7 Kink Test:

Objective: The purpose of this test is to verify whether kinking of an optical fibre cable results in breakage of any fibre, when a loop is formed of dimension small enough to induce a kink on the sheath.

Method: IEC 60794-1-2-E10.

Test Specs.: The sample length shall be 10 times the minimum bending radius of the cable. The sample is held in both hands, a loop is made of a bigger diameter and by stretching both the ends of the cable in opposite direction, the loop is made to the minimum bend radius so that no kink shall form. After the cable comes in normal condition, the attenuation reading is taken.

Requirement: The kink should disappear after the cable comes in normal condition. The change in attenuation of the fibre after test shall be ≤ 0.05 dB both for 1310 nm & 1550 nm wavelength.

4.8 Cable Bend Test:

Objective: The purpose of this test is to determine the ability of an optical fibre cable to withstand repeated flexing. The procedure is designed to measure optical transmittance changes and requires

an assessment of any damage occurring to other cable components.

Method: IEC 60794-1-2-E11 (Procedure-I).

Test Specs: The fibre and the component parts of the cable shall not suffer permanent damage when the cable is repeatedly wrapped and unwrapped 4 complete turns of 10 complete cycles around a mandrel of 20 D, where D is the diameter of the cable. The attenuation shall be noted before and after the completion of the test.

Requirement: The change in attenuation of the fibre after the test shall be ≤ 0.05 dB both for 1310 nm and 1550 nm wavelength. Sheath shall not show any cracks visible to the naked eye when examined whilst still wrapped on the mandrel.

4.9 Temperature Cycling (Type Test):

Objective: To determine the stability behaviour of the attenuation of a cable subjected to temperature changes which may occur during storage, transportation and usage.

Method: IEC 794-1-2-F1 (To be tested on Standard cable length & drum i.e 2Km. $\pm 5\%$)

Test Specs: The permissible temperature range for storage and operation will be from -20°C to $+70^{\circ}\text{C}$. The rate of change of temperature during the test shall be 1°C per minute approx. The cable shall be subjected to temperature cycling for 12 Hrs. at each temperature as given below:

TA2 temp. :	$- 20^{\circ}\text{C}$
TA1 temp. :	$- 10^{\circ}\text{C}$.
TB1 temp. :	$+ 60^{\circ}\text{C}$.
TB2 temp. :	$+ 70^{\circ}\text{C}$.

The test shall be conducted for 2 cycles at the above temperatures.

Requirement: The change in attenuation of the fibre under test shall be ≤ 0.05 dB for 1310 nm and 1550 nm wave length respectively for the entire range of temperature.

4.10 Cable aging Test (Type Test):

Objective: To check the cable material change dimensionally as the cable ages.

Method: At the completion of temperature cycle test, the test cable shall be exposed to 85 ± 2 degree C for 168 hours. The attenuation measurement at 1310 & 1550 nm wave length to be made after stabilization of the test cable at ambient temperature for 24 hours.

Requirement: The increase in attenuation allowed: ≤ 0.05 dB at 1310 and 1550 nm.

Note: The attenuation changes are to be calculated with respect to the base line attenuation values measured at room temperature before temperature cycling.

4.11 Water Penetration Test (Type Test):

Objective: The aim of this test is to ensure that installed jelly filled Optical Fibre cable will not allow water passage along its length.

Method: IEC 60794-1-2-F5 (Fig. B) 1992.

Test Specs. A circumferential portion of the cable end (with inner HDPE sheath) shall face the water head. The water tight sleeve shall be applied over the cable. The cable shall be supported horizontally and two meter head of water, containing a sufficient quantity of water soluble fluorescent dye for the detection of seepage, shall be applied on the inner HDPE sheath for a period of 7 days at ambient temperature. No other coloured dye is permitted.

Requirement: No dye shall be detected when the end of the 3m length of the cable is examined with ultraviolet light detector. The cable sample under test shall be ripped open after the test and then it shall be examined for seepage of water into the cable and the distance to be noted. It shall not be more than 20 cm.

4.12 Test of Figure of 8 (Eight) on the cable (Type Test):

Objective: Check of easiness in formation of figure of 8 of the cable during installation in the field.

Test Method: 1000 meter of the cable shall be uncoiled from the cable reel and shall be arranged in figure of 8 (eight) shape. The diameter

of each loop of the figure of 8 shall be maximum 2 meters.

Requirement: It shall be possible to make figure of 8 of minimum 1000 meters of the cable uncoiled from the cable reel without any difficulty. No visible damage shall occur.

4.13 Flexural Rigidity Test on the optical fibre cable (Type Test):

Objective: To check the Flexural Rigidity of the metal free optical fibre cable.

Method: To be tested as per ASTM D –790

Test Specs: The fibre and the component parts of the cable shall not suffer permanent damage in the cable subjected to Flexural Rigidity Test as per the above method. The attenuation shall be noted after and before the completion of the test.

Requirement: The change in attenuation of the fibre after the test shall be ≤ 0.05 dB at 1310, 1550 nm and 1625nm wavelengths. The sheath shall not show any cracks visible to the naked eye.

4.14 Static Bend test (Type Test):

Objective: To check the cable under Static bend.

Method: As per the clause no 4.8 of the GR alternatively as per ASTM D790.

Test Specs: The cable shall be subjected to static bend test. The optical fibre cable shall be bend on a mandrel having a Diameter of 10 D (D is diameter of the cable).

Requirement: The change in attenuation of the fibre after the test shall be ≤ 0.05 dB for 1310, 1550 nm and 1625nm wavelengths. Sheath shall not show any cracks visible to the naked eye when examined whilst still wrapped on the mandrel.

4.15 Cable Jacket Yield Strength And Ultimate Elongation:

Objective: To determine the yield strength and elongation of the polyethylene (HDPE) cable sheath (jacket).

Test Method: FOTP-89 or ASTM 1248 Type III class

Test Condition: 1. Sample shall be taken from a completed cable. The aged

sample shall be conditioned at $100 \pm 2^{\circ}\text{C}$ for 120 hours before testing.

2. The cross-head speed shall be 50 mm per minute.

Requirement:

Jacket Material	Minimum Yield Strength		Minimum Elongation (%)
	(MPa)	(psi)	
HDPE un-aged	16.5	2400	400
HDPE aged	12.4	1800	375

4.16 To Check of the quality of the loose tube (containing optical fibre) (Type Test):

a. Embrittlement Test

This test method is based on bending by compression and reflects embrittlement much better than the other tensile tests. This test is independent of wall thickness of the loose tube.

Sample: The minimum length of the test sample depends on the outside diameter of the loose tube and should be 85 mm for tubes up to 2.5 mm outside dia. The length of the bigger tubes should be calculated by using the following equation:

$$L_o > 100 \times \left[\frac{(D^2 + d^2)^{1/2}}{4} \right]$$

where

L_o = Length of tube under test.

D = Outside dia of loose tube.

d = Inside dia of loose tube.

Procedure: Both the ends of a buffer tube test sample may be mounted in a tool, which is clamped in jaws of a tensile machine which exerts a constant rate of movement. The movable jaw may move at a rate of 50 mm per minute toward the fixed jaw. Under load, the tube will bend so that it is subjected to tensile and compressive stresses. The fixture for holding the tube should be designed in a manner that the tube might bend in all directions without further loading.

Requirement: The tube should not get embrittled. No kink should appear on the tube up to the safe bend diameter of tube ($15 D$), where D is the outside diameter of the loose tube. There should also not be any physical damage or mark on the tube surface.

b. Kink Resistance Test on the Loose Tube

Objective: To safeguard the delicate optical fibers, the quality of the loose tube material should be such that no kink or damage to the tube occur while it is being handled during installation and in splicing operations.

Procedure: To check the kink resistance of the loose tube, a longer length of the loose tube is taken (with fiber and gel), a loop is made and loop is reduced to the minimum bend radius of loose tube i.e. $15 D$ (where D is the outside diameter of the loose tube). This test is to be repeated 4 times on the same sample length of the loose tube.

Requirement: No damage or kink should appear on the surface of the tube.

4.17 Drainage Test for Loose Tube and Drip test on the cable (Type Test):

a. Drainage Test for loose Tube

Sample Size: 30 cm tube length.

Test procedure:

1. Cut the tube length to 40 cm.

Fill the tube with the tube filling gel ensuring that there are no air bubbles and the tube is completely full.
- 2.
3. Place the filled tube in a horizontal position on a clean worktop and cut 5 cm from either end so that the finished length of the sample is 30 cm.
4. Leave the filled tube in a horizontal position at an ambient temperature for 24 hrs. (This is necessary because the gel has been sheared and the viscosity has been reduced during the filling process).
5. The sample tube is then suspended vertically in an environment heat oven over a weighed beaker. It is left in the oven at a temperature of 70°C for a period of 24 Hrs.

6. At the end of the 24 hours period the beaker is checked and weighed to see if there is any gel in the beaker.

Results:

1. If there is no gel or oil in the beaker the tube has PASSED the drainage test.
2. If there is gel or oil in the beaker the tube has FAILED the drainage test.

b. Drip test on the cable

Objective: The purpose of this test is to determine the ability of jelly in the O.F. cable to withstand a temperature of 70 degree C.

Method: Take a sample of 30 cm. length of the cable with one end sealed by end cap. Remove outer black sheath, binder tapes for 5 cm from open end of the sample. Clean the jelly. Then the sample is kept vertically with open end downwards in the oven for 24 hours at 70° C with a paper under the sample.

Test Specs: Examine the paper placed below the cable inside the oven for dripping of the jelly after 24 hours. There should be no jelly drip or oily impression on the paper.

4.18 Check of easy removal of sheath:

Objective: Check of the easy removal of sheath of the fiber optic cable by using normal sheath removal tool.

Procedure: To check easy removal, the sheath shall be cut in circular way and the about 300 mm length of the sheath should be removed in one operation. It should be observed during sheath removal process that no undue extra force is applied and no component part of the cable is damaged. One should be able to remove the sheath easily.

4.19 Check of the effect of aggressive media on the cable (Acidic and Alkaline Behaviour) (Type Test):

Procedure: To check the effect of aggressive media, solution of PH4 and PH10 shall be made. The two test samples of the finished cable, each of 600 mm in length, are taken and the ends of the samples are sealed. These test samples are put in the PH4 and PH10 solutions separately. After 30 days these samples are

taken out from the solutions and examined for any corrosion etc. on the sheath and other markings of the cables. (Test method no. ISO175).

Requirement: The sample should not show any effect of these solution on the sheath and other marking of the cable.

4.20 Termite & Rodent Test (Type Test):

Termite & Rodent test shall be carried out at any NABL accredited /Government lab on finished cable samples. The reports shall be submitted by the manufacturers. Termite resistance shall be provided with an additive/without additive in outer sheath and rodent protection shall be provided with Glass roving yarns around the periphery of inner sheath and these yarns should be spread uniformly around the periphery of inner sheath.

The following minimum parametric tests on Anti termite / Anti rodent dopants shall be carried out during the TSEC testing

1. Non-toxicity
2. Thermal Stability
3. Long life Span / half-life
4. Compatibility
5. Efficacy

The thermal stability of the dopant should not deteriorate during cable execution process. The life of the dopant should be equal or better than the life of the cable specified in the technical specification herein. Appropriate certificate in this regard from any neutral lab accredited with NABL / Government Laboratory / Institute should be produced.

Similarly other parameters such as non toxicity, efficacy and compatibility shall be certified in any neutral lab accredited with NABL / Government Laboratory / Institute and test report is to be submitted during TSEC testing.

The above tests mentioned here are the minimum test requirements. BBNL can specify any other test / changes in parametric values which shall be deemed necessary at a later stage and these will have to be mandatorily complied with.

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PART II – GENERAL REQUIREMENTS

5.0 Engineering Requirements:

5.1 Cable Marking:

- 5.1.1 A long lasting suitable marking shall be applied in order to identify this cable from other cables. The cable marking shall be imprinted (indented). The marking on the cable shall be indelible of durable quality and at regular intervals of one meter length. The accuracy of the sequential marking must be within -0.25% to +0.5% of the actual measured length. The sequential length markings must not rub off during normal installation and in life time of optical fibre cable. The total length of the cable supplied shall not be in negative tolerance.
- 5.1.2 The marking shall be in contrast colour over the black HDPE Sheath (jacket) and shall be one by hot foil indentation method. The colour used must withstand the environmental influences experienced in the field.
- 5.1.3 The type of legend marking on O.F. cable shall be as follows:
- a) Company LOGO
 - b) Legend containing internationally acceptable Laser symbol
 - c) Type of Fibre – G.652 D
 - d) Number of Fibres
 - e) Type of cable
 - f) Year of manufacture
 - g) Sequential length marking
 - h) User's Identification: User Identification Marking on the cable shall be "BBNL" and the BBNL logo shall also be used.
 - i) Cable ID

5.2 Cable Ends:

- 5.2.1 Both cable ends (the beginning end and end of the cable reel) shall be sealed and readily accessible. Minimum 5 meter of the cable of the beginning end of the reel shall accessible for testing. Both ends of the cable shall be kept inside the drums and shall be located so as to be easily accessible for the test. The drum (conforming to GR No. G/CBD-O1/02 Nov. 94 and subsequent amendment) should be marked to identify the direction of rotation of the drum.

Both ends of cable shall be provided with cable pulling (grip) stocking and the anti twist device (free head hook). The wooden drums shall be properly treated against termites and other insects during transportation and storage. The manufacturer shall submit the methodology used for the same

- 5.2.2 An anti twist device (Free head hook) shall be provided, attached to both the ends of the cable pulling arrangement. The arrangement of the pulling eye and its coupling system along with the anti twist system shall withstand the prescribed tensile load applicable to the cable.

5.3 The nominal drum length

- 5.3.1 Length of OF Cable in each drum shall be 2 Km $\pm 5\%$ and shall be supplied as per the order. The variation in length of optical fibre cable, as specified above (in each drum), shall be acceptable.

- 5.3.2 The fibres in cable length shall not have any joint.

- 5.3.3 The drum shall be marked with arrows to indicate the direction of rotation.

- 5.3.4 Packing list supplied with each drum shall have at least the following information:

- a) Drum No.
- b) Type of cables
- c) Physical Cable length
- d) No. of fibres
- e) Length of each fibre as measured by OTDR
- f) The Cable factor - ratio of fibre/cable length
- g) Attenuation per Km. of each fibre at 1310 & 1550 nm
- h) Users / Consignee's Name
- i) Manufacturers Name, Month, Year and Batch No.
- j) Group refractive index of fibre.
- k) Purchase Order No.
- l) Cable ID

5.4 Colour coding in OF Cables

5.4.1 The colorant applied to individual fibres shall be readily identifiable throughout the lifetime of the cable and shall match and conform to the Munsell Colour Standards (EIA-359-A) and also IEC Publication 304 (4).

5.4.2 Colour Coding Scheme

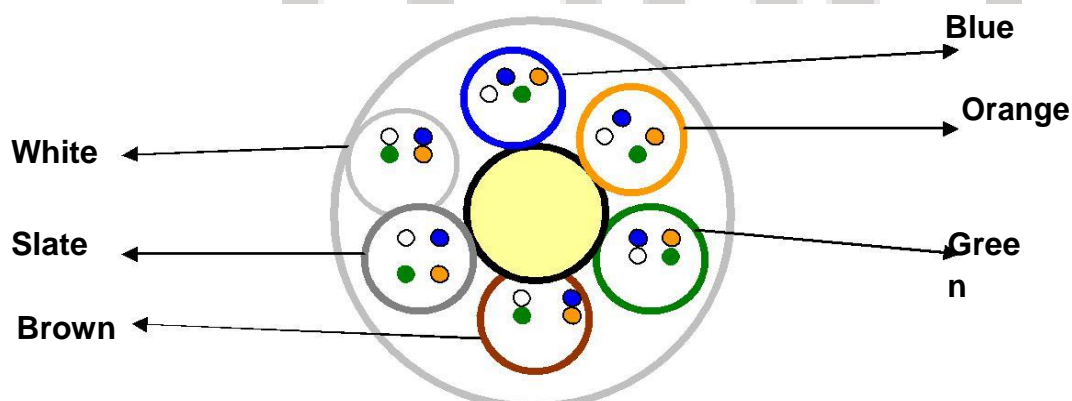
When the loose tubes are placed in circular format, the marking to indicate the loose tube no. "1" shall be in blue colour followed by loose tube no.2 of orange and so on for other tubes as per the colour scheme given below and complete the circular format by placing the dummy /fillers at the end.

Depending upon the number of fibres in a loose tube (which depends on the cable capacity), the fibres are serially chosen from the column no. II of the following table-1. Last fibre in a tube shall be of natural color, while the rest of fibres are colored.

Table -1: Colour Coding scheme of the Optical Fibre & Loose tube

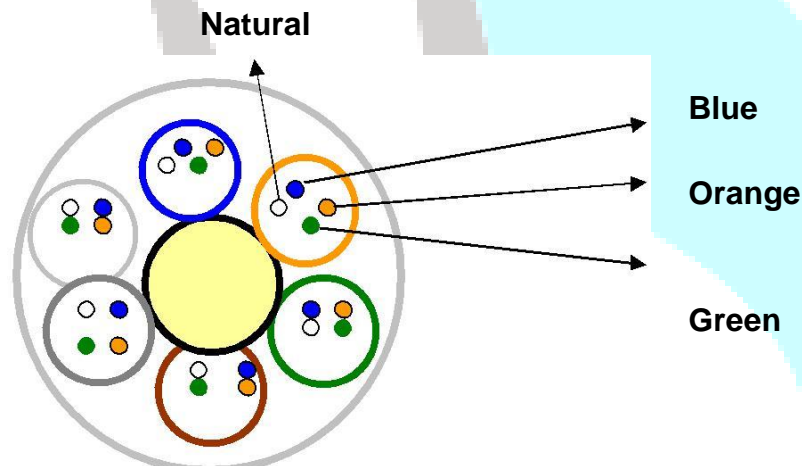
No. of Fibers/Buffer tube I	Fiber identification II	Loose tube identification III
1	Blue	Blue
2	Orange	Orange
3	Green	Green
4	Natural	Brown
5		Slate
6		White

Colour coding of Loose Tubes for 24 fibres (Refer Table 1)



(Loose Tube Colour: Blue, Orange, Green, Brown, Slate, White)

Color coding of 24 Fibres within Loose Tubes (Refer Table 1)



(Fiber Colour: Blue , Orange, Green, Natural)

6.0 Quality Requirements:

6.1 The cable shall be manufactured in accordance with the international quality standards ISO 9001-2008 (latest issue) for which the manufacturer should be duly accredited. The Quality Manual shall be submitted by the manufacturer.

6.2 Raw Material:

6.2.1 The cable shall use the raw materials approved against the GR No. TEC/GR/TX/ORM-01/04 SEP.09 and the subsequent amendment issued, if any.

6.2.2 Any other material used shall be clearly indicated by the manufacturer. The detailed technical specifications of such raw materials used shall be furnished by the manufacturer at the time of evaluation/testing.

6.2.3 The raw materials used from multiple sources is permitted and the source / sources of raw materials (Type and grade) from where these have been procured shall be submitted by the manufacturer.

6.2.4 The manufacturer can change the raw material from one approved source to other approved source with the approval of BBNL. In case of change of source/grade of SM Optical Fibre, the call for fresh evaluation/testing shall be decided by BBNL.

6.2.5 The raw material used (HDPE black in colour) for outer sheath shall protect

the cable from attack by termite & rodent. The manufacturer shall specify anti-termite and anti-rodent (optional) additives and submit the detail characteristics of the material and additives used to make it termite & rodent (optional) proof. The additives shall also be non-toxic. The cable shall be tested for the presence of Anti termites & Anti rodent (optional) additives by recognized laboratory or institute. The cable shall also be tested for its termite & rodent (optional) proven-ness by NABL accredited Lab / Govt laboratory or institute.

6.2.6 The HDPE black in colour used for sheath shall be UV stabilised.

Note: A test certificate from a recognised laboratory or institute may be acceptable for the UV stability of the HDPE sheath material

6.2.7 The material used in optical fibre cable must not release hydrogen that will affect the characteristics of optical fibres.

Note: A test certificate from a NABL accredited Lab / Govt laboratory or institute shall be mandatory.

6.3 Cable Material Compatibility:

Optical fibre, buffers/core tubes, and other core components shall meet the requirements of the compatibility with buffer/core tube filling material(s) and/or water-blocking materials that are in direct contact with identified components within the cable structure (This shall be tested as per clause no. 6.3.4 of Telecordia document GR-20-CORE issue 2, July 1998).

Note: The tests may be conducted in house (if facility exist) or may be conducted at CACT or any NABL accredited Lab / Govt. laboratory.

7.0 Documentation:

7.1 Complete technical literature in English with detailed cable construction diagram of various sub-components with dimensions, weight & test data and other details of the cable shall be provided.

7.2 All aspects of installation, operation, maintenance and fibre splicing shall also be covered in the handbook. The pictorial diagrams of the accessories (with model no. and manufacturer name) supplied along with the cable as package shall be also be submitted. A hard as well as soft copy of the manuals shall be provided.

8.0 Safety:

8.1 The material used in the manufacturing of the Optical fibre cables shall be non-toxic and dermatologically safe in its life time and shall not be hazardous to health. The manufacturer shall submit MSDS (Material safety Data Sheet) for all the material used in manufacturing of OF Cable to substantiate the statement.

9.0 Procedures for the issue of Evaluation/ Testing certificate for Metal Free Optical Fiber Cable With Double HDPE Sheath

9.1 For the issue of Evaluation/Testing certificate for low fibre count of Metal Free Optical Fibre Cables against the specifications under this section to the manufactures having valid Evaluation/Testing certificate for higher fibre count of Metal Free Optical Fibre cables against this specification without conducting the actual tests on the cable, following is stated.

- i) The manufacturer may seek TAC/ TSEC against the technical specifications of 24 Fibre Optical Cable mentioned in Section-IV-C of the tender document.
- ii) The list of the Raw Materials used, the make and grade of the raw material and the certificate of source approval issued by CACT or any NABL accredited Lab / Govt. laboratory along with the details of the Raw Materials used in the manufacturing of the 24 fibre count OF cable.

9.2 Additional required information from the manufacturer may be sought (regarding manufactured Optical Fibre Cable) and the manufactured cable may be inspected at the manufacturer's premises. After all the above requirements are met, the Evaluation/Testing certificate may be issued based upon the test results and other details submitted by the manufacturer.

9.3 The above procedure shall be applicable only to the approval of Metal Free Double HDPE Sheathed Optical Fibre Cables against the specifications given in this tender and subsequent amendments, if any.

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Annex.1

The following parameters of the component parts of the cable are to be taken in to account while designing optical fibre cables of the required fibre count. These parameters shall be checked during evaluation of the

SN	Parameter	Unit	24 Fibre OF cable
1	FRP Rod EAA Coated	Mm	2.0+0.1/-0.0
2	Tube ID (min)	Mm	1.2
3	Tube OD	Mm	1.9± 0.1
4	No of fibre /tube	No	4
5	Color of fibre		BL,OR, GR, NAT
6	No of loose tubes	No	6
7	Colour of loose tubes		BL,OR, GR,BR, SL,WH
8	No of dummy cord	No	0
9	Tube stranding lay over length	Mm	90-110
10	Inner Sheath Thickness (refer clause 3.8.8)	mm	1.2
11	Qty. of Impregnated Glass roving (min.)	Kg/Km	20
12	Outer Sheath Thickness	mm	1.6
13	Cable diameter	mm	13.2±1.0mm
14	Nominal cable weight	Kg/ km	140
15	Cable to be designed to Fibre strain value of	%	0.1
16	Excess fibre length	%	0.65
17	Cable to be tested at defined Load for fibre strain value of	%	0.25

Note: The manufacturer shall submit the design calculations which shall be cross checked.

REFERENCES

TEC STANDARDS

- | | | |
|---|--------------------------------------|--|
| 1 | GR No. TEC/GR/TX/ORM-01/04 SEP.09 | Specification for Raw Material used in manufacturing of OF Cables. |
| 2 | GR No. GR/OFT-01/03. APR 2006 | Tools for installation & Operating the OFC & for assembly of the OF Splice Closures. |
| 3 | GR No. G/CBD-01/02. NOV 94 | Drum specifications for Cable ends. |
| 4 | GR No. TEC/GR/TX/OJC-002/03/APR-2010 | Specifications for Splice Closure for Optical Fibre Cable |

OTHER STANDARDS (EIA/IEC/Bell Core/CISPR/ISO etc.)

- | | | |
|----|--|--|
| 1. | ITU-T G.652 D | ITU-T Recommendations |
| 2. | GR-20-CORE July 98 | Generic Requirement for Optical Fibre Cable (Bell Core) |
| 3. | IEC 811-5-1, IEC 794-1-2-E1
IEC 794-1-2-E2, IEC 794-1-2-E3
IEC 794-1-2-E4, IEC 794-1-2-E7,
IEC 794-1-2-E10,
IEC 794-1-2-F1, IEC 794-1-2-F3,
IEC 794-1-2-F5, IEC 60793-1-30
IEC 60793-1-31 IEC 60793-1-32
IEC 60793-1-33 IEC 60793-1-34
IEC 60793-1-47, IEC 60793-1-51,
IEC 60793-1-52, IEC-60793-1-53
IEC -60793-2-50, | Test Methods for Optical Fibres |
| 4. | IEC 304(4), EIA 359-A | Colour Standard |
| 5. | EIA 455-104, EIA/TIA-455-181,
EIA/TIA-455-73 | Test Method for Optical Fibre |
| 6. | ISO 175,
ISO 9001-2000 | Test Method for Optical Fibre
International Quality Management System |
| 7. | FOTP-89,
FOTP-181 | Test Methods |

8. ASTM D-566,
 ASTM D-790
 ASTM D-1248,
 ASTM D-4565
- Test Methods

LIST OF ABBREVIATIONS

ASTM	- American Society for Testing Materials
AISI	- American Iron and Steel Institute
BIS	- Bureau of Indian Standards
BSNL	- Bharat Sanchar Nigam Limited
FRP	- Fibre Reinforced Plastic
HDPE	- High Density Polyethylene
IEC	- International Electro Technical Commission
IS	- Indian Standards
ISO	- International Standard Organisation
KV	- Kilo Volt
MFD	- Mode Field Diameter
OF	- Optical Fibre
QA	- Quality Assurance
QM	- Quality Manual
RMS	- Route Mean Square
UV	- Ultra Violet

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Section- II

Chapter 5 OFFER LETTER

To

RailTel Corporation of India Limited,
Plot No. 43, Sector-44,
Opp. Gold Souk Mall,
Gurgaon -122003.

I/We _____ have read the various conditions detailed in tender documents attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of 90 days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to SUPPLY as per Bid Data Sheet at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work within as per Bid Data Sheet from the date of issue of Purchase Order. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the supplies according to the Specifications for materials and works laid down by the RailTel for the present contract.

2. A sum of Rs.10,00,000/- (Rupees Ten Lakh) as an Account Payee Demand Draft in favour of RailTel Corporation India Ltd. Payable at New Delhi. No. _____ dt. _____ issued by _____ is herewith forwarded as "Earnest Money". The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if, I/We withdraw or modify the offer within validity period or do not deposit the security deposit (Performance Bank Guarantee) within 15 days after receipt of orders to that effect.

SIGNATURE OF SUPPLIER (S)

Date

SIGNATURE OF WITNESS CONTRACTOR (S) ADDRESS

- 1.
- 2.

Chapter 6

INSTRUCTIONS TO THE E-TENDERERS

PLEASE NOTE

For E-Tendering bids /information by bidders is to be submitted “Online” on TCIL’s e-Procurement Portal. Any document / information pertaining to this chapter will have to be submitted by the bidder on line. The digital signature of the tenderer on the e-tender form will be considered as confirmation that the tenderer has read, understood and accepted all the documents, unless special deviation is quoted by the tenderer in the technical & commercial deviation templates.

ALL COLUMNS SHOULD BE FILLED AND BLANK COLUMNS, IF ANY, SHOULD BE MARKED AS NIL.

PLEASE READ THE SCHEDULE OF REQUIREMENTS, INSTRUCTIONS TO THE TENDERERS, GENERAL & SPECIAL TENDER CONDITIONS, STANDARD CONDITIONS OF CONTRACT AND TECHNICAL SPECIFICATIONS OF SCHEDULE OF REQUIREMENTS BEFORE FILLING UP THE TENDER FORM CAREFULLY. PLEASE SIGN ON EACH PAGE.

THE TENDERERS MAY DOWNLOAD TENDER FORM FROM THE WEB SITE ‘www.railtelindia.com’ OR FROM THE E-TENDERING PORTAL ‘<https://www.tcil-india-electronictender.com>’, AND SHOULD ENCLOSE COST OF THE TENDER FORM ALONG WITH THE OFFER IN THE FORM OF DD IN FAVOUR OF RAILTEL CORPORATION OF INDIA LTD payable at NEW-DELHI.

NOTE: For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL’s e-procurement portal, and this should be done well before the deadline for bid-submission.

The Tender document consists of the following:-

Notice Inviting Tender

Section ‘I’ (Variable)

Chapter 1 Schedule of Requirements (Price Schedule)

Chapter 2 Bid Data Sheet

Chapter 3 Special Tender Conditions

Chapter 4 Special (Technical) Conditions of Contract and
Technical Specifications

Section ‘II’ (Fixed)

Chapter 5 Offer Letter

Chapter 6 Instructions to the Tenderers

Chapter 7 General Tender Conditions

Chapter 8 Standard Conditions of Contract

Chapter 9 Performa for Performance Bank Guarantee

6.1. Offer Letter

- 6.1.1** The bidder shall complete the Offer Letter (Chapter-5) and the Price Schedule (Chapter-1) furnished in the bid document, indicating the goods to be supplied, description of the goods, associated technical literature, quantity and prices etc.
- 6.1.2** Bidders should enclose their credentials including supply of equipment/material to Reputed Telecom Operators and Government/PSUs. (Performa to be enclosed)

6.2 Instructions for Tender Document TO THE TENDERERS

The RailTel Tenders are published on www.railtelindia.com and on e-Tendering Portal <https://www.tcil-india-electronictender.com>. In addition to submitting the e-Tender documents online, they should also submit a Demand Draft drawn in a scheduled bank in favour of "RailTel Corporation of India Ltd, payable at NEW-DELHI, towards the cost of the tender document.

NOTE: For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL's e-procurement portal, and this should be done well before the deadline for bid-submission.

6.3 Submission of Offers and Filling of Tender:

This e-tender should be duly submitted online using the e-Procurement Portal <https://www.tcil-india-electronictender.com>.

- a. The rates quoted should be written both in words & figures. The unit of rates should be in metric system & as per tendered specification/schedule. In case of difference between words and figures, the rate in words will prevail. If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the purchaser accordingly. In case discrepancy is observed between the 'Electronic Form' and the 'Main Bid file' the text and amounts etc. of the Electronic Form will prevail, as this is the information shared transparently with all participating bidders during Online Public Tender Opening Event on ETS.
- b. Tenderers are requested to go through the Standard Conditions, Special Conditions, Instructions to Tenderers, General Conditions carefully and note that, by submitting the tender documents, duly signed, they have accepted these conditions and undertake to abide by these conditions (unless specifically disagreed to clause wise).

6.4.0 Earnest Money Deposit (EMD) :

The tenderer shall deposit earnest money as per BID DATA SHEET along with the tender in favour of RailTel Corporation of India Ltd., payable at NEWDELHI in the form of Demand Draft from any Scheduled Bank which should remain valid for 45 days beyond the bid opening date. Tenders without earnest money will be summarily rejected. No bank guarantee for EMD is accepted. Earnest Money of unsuccessful tenderers shall be returned after finalization of contract and that of successful tenderer after conclusion of Contract and securing Security Deposit.

6.4.0.1 Forfeiture of EMD

- a) The EMD will be forfeited if tenderer withdraws its tender during the period of tender validity specified in BID DATA Sheet of Tender Document.
- b) In the case of successful tenderer, if the tenderer fails to sign the contract in accordance with Para 8.4.0 of Tender document and to furnish Performance Bank Guarantee in accordance with Para 6.5.1 of tender document within specified period.

6.4.1 For NSIC registered Firm

- 1. For small scale units registered with NSIC under single point registration Scheme and participating in this tender enquiry, following exemptions are available:-
 - (i) They are exempted from cost of tender documents.
 - (ii) They are also exempted from depositing Earnest money.

These exemptions are applicable provided units are registered with NSIC for tendered item and registration is current and valid. Firms claiming these exemptions are required to submit along with their offer, copy of their current and valid NSIC registration certificate for the tendered item, otherwise their offer would not be considered.

- 2. No exemption is, however, applicable to these units from payment of security deposit/ Performance Bank Guarantee.
- 3. The participating MSEs in a tender, quoting price within the band of L1+15% shall also be allowed to supply a portion of the requirement by bringing down their prices to the L1 price, in situation where L1 is from someone other than an MSE. Such MSEs shall be allowed to supply up to 20% of the total tendered value. In case of more than one such eligible MSE, the supply will be shared equally.

NOTE: For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL's e-procurement portal, and this should be done well before the deadline for bid-submission.

6.5 Security Deposit:

The successful tenderer shall submit 10% of total value of the stores/works detailed in the Acceptance Offer towards security deposit in the form of DD/FDR or irrevocable Bank Guarantee from any scheduled bank for due fulfillment of contract. The instrument shall be valid for three months beyond the warranty period. The security deposit shall be released after successful completion of Contract including warranty period, duly adjusting any dues recoverable from the successful tenderer. Payment of Security Deposit and Earnest Money in the form of Pay Order/Demand Draft should be made in favor of "RailTel Corporation of India Ltd" payable at NEW-DELHI only.

6.5.1 Performance Bank Guarantee:

In case, successful tenderer wishes to furnish security deposit in the form of Performance Bank guarantee, the same should be submitted within 15 days of issue of acceptance/ Advance purchase order as per under mentioned item (i) & (ii) .This PBG should be from a Scheduled Bank and should cover warranty period plus three months for lodging the claim. The performance security Bond will be discharged by the Purchaser after completion of the supplier's performance obligations including any warranty obligations under the contract.

- i) Performance Bank Guarantee of 2.5% of total value of the stores is required to be submitted and should be valid for 33 months (12 +18+3) from the date of issue of APO to cover Validity of Advance Purchase Order, delivery period and Warranty period.
- ii) Performance Bank Guarantee of 7.5 % of Sub PO value of the stores is required to be submitted with validity 3 months beyond warranty period of supply.

6.6 No Interest on Earnest Money and Performance Security:

No interest shall be paid on the amount of earnest money and Performance Security held by the RailTel, at any stage.

6.7 Fax Quotations & Late Tenders:

Fax Tender documents and Late/Delayed tenders would not be considered.

6.8 Drawings and Specifications:

If any tenderer happens to quote with their own Drawing No / Part No / Specification, then, they shall have to, necessarily, submit all the requisite documents and information, in support of their offer being in conformity with the tender Drawing / Specification. Furthermore, duly authenticated copies of such drawings / specifications / catalogue are also to be enclosed, failing which the offer will be liable to be rejected.

6.9 Attendance of Representatives for Tender Opening:

Representatives of tenderers desirous to attend the tender opening can do so on production of a proper letter of authority from the respective firm, failing which they may not be allowed to attend the tender opening. In addition, representatives desirous of attending the Online Public Tender Opening Event can do so by getting authorized for such participation by the Super-User/ Master User of their respective organizations on ETS. Authorized representatives of those firms who have submitted the tender documents alone shall be allowed to attend the tender opening.

6.10 Other Particulars to be enclosed along with tender:

Following details should also be enclosed along with the tender:-

- i) Performance statement of last three years for supply of same or similar items to Railways, BSNL, MTNL, Government PSU's & Telecom Service Providers. This Performance Statement is to be submitted in following format:-

Year	PO. No. & Date with description of item	Name of the purchaser	Qty. ordered	Date of delivery in the Purchase Order	Qty. supplied within scheduled date of delivery	Qty. supplied during 1st extension	Qty. supplied during 2nd extension	Qty. supplied during 3rd extension
1	2	3	4	5	6	7	8	9

They may be deprived of any order against this tender if the information furnished is found to be incorrect later on. Correct status/supply position of pending orders, if any, should be invariably indicated. Supporting documents are to be enclosed. Photocopies of the supply/purchase orders along with the Inspection Certificates and Receipt Notes should be enclosed for ready reference, along with tender to substantiate their past performance.

- ii) Details of Machinery and Plant, other equipments, testing facilities, quality management/ control systems and details of technical manpower available.
- iii) Tenderers should submit documentary evidence in respect of their approval indicating current validity and approval of their equipment offered wherever necessary.

- iv) Complete Tender documents duly signed & stamped on each page in token of acceptance.
- v) The make and model No. of the equipment offered against each schedule of requirement should be clearly mentioned in the offer along with the technical specifications of the concerned model. Enclose the complete Technical literature.

6.11 Rate, Taxes and Duties:-

- 6.11.1** Tenderer should submit offer on CIP destination basis. Tenderers should clearly indicate separately ex-works basic price, packing charges, forwarding charges, Excise Duty & Educational Cess, Sales Tax /VAT, Freight and insurance charges up to destination, applicable for each unit tendered. Duties and Taxes are not payable on freight charges and forwarding charges. If necessary, please use a separate sheet, wherever required. Octroi/ Entry tax would be extra and actual would be reimbursed on documentary proof.
- 6.11.2** Tenderers are requested to quote in the following terms:-

The tenderers are required to quote in the same rate units/ Sets etc. as given in the tender schedule. Any deviation in this aspect will make the offer liable to be ignored.
- 6.11.3** Concessional Sales Tax 'Form C' will be issued by RailTel (Concerned Regional Office), wherever applicable and requested by the tenderers in the offers.
- 6.11.4** RailTel will be claiming CENVAT credit from the relevant authorities, wherever applicable, based on documentary evidence of duties and taxes submitted by the contractors.
- 6.11.5** Tenderer should submit firm price offer. Price quoted by the bidder shall remain fixed during the entire period of contract. The offer shall be firm in Indian Rupees. No Foreign exchange will be made available by the purchaser.

6.12 Excise Duty:

- 6.12.1** Tenderers are requested to refrain from quoting vague terms like "Excise Duty applicable" and mention clearly the rate of ED leviable for the tendered stores. If the quoted rate is inclusive of ED, the tenderer must indicate the ED considered clearly. If it is not done so, then, the offer will be taken as inclusive of ED at the highest rate obtained in the tender batch. General phrases as "Excise

duty extra as applicable” shall not be accepted. Please mention clearly if excise duty is applicable on the tendered item or not.

If Excise Duty (ED) is being charged extra, then the tenderers should clearly indicate the exact rate of ED applicable in their offers.

If concessional ED is applicable at the time of quoting of offers and the tenderers wish that actual ED at the time of supply should be paid, then they should clearly indicate that ED will vary based on the turn-over value and must also indicate the maximum rate of ED payable. Tenders will be evaluated on the basis of maximum rate of ED which may become applicable. However, ED will be reimbursed at actual and within the upper ceiling of the maximum ED rate considered for evaluation purpose.

If ED is not claimed in the offer and no mention is made about Excise duty, then no ED will be payable. If ED is claimed in the offers with exact rate and statutory variation is also claimed by the firm in the offer, the same will be considered duly evaluating the offers with exact rate of ED.

In no case, the variation in ED due to increase in turnover during the currency of contract will be admissible unless specifically mentioned in the offer.

If tenderer misclassifies the goods under relevant excise tariff rules, the RailTel will not pay increased Excise Duty due to such misclassification.

ED will be paid subject to documentary evidence and government notifications only.

If ED is not quoted in the offer, it shall be considered that the offer will be taken as inclusive of ED at the highest rate obtained in the tender bid.

6.12.2 Payment of ED and Excise Duty- CENVAT Rules.

a) The purchaser will not be responsible for payment of taxes and duties paid by the supplier under misapprehensions of law or misclassification and in such cases even if the suppliers bill contain an element of tax or duty which is not payable by the purchaser, such payment would be disallowed.

b) The claim for ED, if any, on each bill should be supported by the following certificates:-

i) Certified that the amount of Rs.....claimed as ED in this bill is in accordance with the provision of the rules in all respects and the same has been actually paid to the excise authorities in respect of the stores covered by the bills.

ii Quarterly certificate to the effect that no refund of ED already reimbursed against this contract has been obtained during the quarter ending. In the event of any such refund being obtained by the seller, the same should be passed on to the purchaser.

iii) Certificate: - The tenderers will have to give the following certificates in their offer:-

"We hereby declare that in quoting the above price, we have taken into effect, the full effect of the duty set-off on 'Central excise and counter veiling duties' available under the existing scheme. We further agree to pass on such additional duties and set off as may become available in future in respect of all the inputs used for the manufacture of the final product, on the date of the supply under scheme, by way of reduction in price and advise the purchaser accordingly."

iv) Payment of excise duty will be released only after submission of excisable invoice to RailTel for availing CENVAT credit.

6.13 Sales Tax/Value Added Tax:

6.13.1 If any tenderer desires to ask for Sales Tax/VAT to be paid extra, the same must be specifically stated. In the absence of any such stipulation in the tender it will be presumed that the prices quoted by the tenderer are inclusive of Sales Tax /VAT and no liability for payment of the Sales Tax will be devolved upon the purchaser.

6.13.2 Sales Tax/Value Added Tax should be quoted extra if applicable. Concessional Form 'C' will be supplied by the purchaser, wherever applicable, while placing the order if required in case of CST.

Wherever Value Added Tax is applicable, the following may be noted:

- a) The tenderer should quote the exact percentage of VAT that they will be charging extra.
- b) While quoting the rates, tenderer should pass on (by way of reduction in prices) the set off/input tax credit that would become available to them duly stating the quantum of such credit per unit of the item quoted for.
- c) The tenderer while quoting for tenders should give the following declaration:

"We agree to pass on such additional set off/input tax credit as may become available in future in respect of all the inputs used in the manufacture of the final production in price and advise the purchaser accordingly".

The supplier while claiming the payment shall furnish the following certificate to the paying authority.

"We hereby declare that additional set off/input tax credit to the tune of Rs._____ has accrued and accordingly the same is being passed on to the purchaser and to that effect the payable amount may be adjusted."

If any surcharge on tax is applicable the same should be indicated clearly.

If sales tax is not quoted in the offer, it shall be considered that no sales tax is applicable. If excise duty is charged then contractor will issue excisable invoice.

6.14 Octroi/Entry Tax

Octroi/Entry Tax should be quoted extra, where applicable. Reimbursement of these taxes would be made on documentary evidence.

6.15 The tenderers are to indicate the Income-Tax PAN details and enclose a Photocopy of the same as governed by extant rules of the Government of India.

6.16 Validity: Tenderers are to keep validity of their offer open for a minimum period as per bid data sheet. Offers with validity period of shorter duration would be taken as non-responsive and rejected.

6.17 Evaluation Criteria:

i) Rates quoted by the Tenderers with discounts, if any, linked to quantity will not be considered for determining inter-se position of the offers. Discounts with conditions attached to early payment, early Receipt/ Accountal etc., will also not be considered for determining inter-se position of the offers. However, RailTel may avail the discounts linked to quantity, early payment, early receipt/ Accountal etc. if otherwise, firm's offer is found to be acceptable.

ii) Inter-se position of the offers will be determined on Total Unit Rate on **CIP destination basis** which will include basic rate, ED & Educational Cess, Sales Tax/VAT, freight, insurance and any other charge or cost quoted by the tenderer. Octroi/Entry tax would not be included for inter-se position.

iii) **Evaluation will be done statewide.** (Evaluation shall be carried out by calculating the total cost for all SOR items.)

6.18 The Special Tender Conditions, wherever, they differ from General and Standard Conditions will override the later.

6.19 Compliance & Deviation statements:

Compliance statement for acceptance of the Technical Specifications (Chapter4) and Instructions & Conditions (Chapter3, Chapter 6, Chapter 7 and Chapter 8) shall be enclosed by the tenderer with the offer along with the technical literature of the material and other documents in support of relevant clauses. Deviation statement, if any, (Chapter-wise and Clause-wise) from these technical Specification & Tender conditions should also be submitted wherever tenderer wishes to deviate from these conditions.

6.20 Tenderer's Comments:

Any comments which the tenderer desires to make shall take the form of a separate statement in English and giving reference to page, clause or item numbers and shall be submitted along with the tender.

6.21 Deleted.

6.22 Tax deducted at Source:

Statutory deduction of taxes would be made as per the prevalent rules .The PAN number may be furnished invariably.

6.23 Addenda / Corrigenda:

Addenda / Corrigenda to the tender documents may be issued by RailTel prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions or in the design. Such addendum/corrigendum shall be available on TCIL's e-Procurement Portal only.Tenderers who are unable or unwilling to bring their tenders to conform to the requirements of the RailTel are liable to be rejected.

6.24 Ambiguity:

If there is any ambiguity or doubt as to the meaning of any of the tender clauses/ conditions or if any additional information required, the matter should immediately be referred to the RailTel in writing.

6.25 Bid submission and Opening date

6.25.1 The bid should be submitted online along with Credential & Price bid document. (all documents).

6.25.2 EMD should be enclosed in an envelope and submitted physically to the tendering authority before the due date and time of submission of the e-Tender.

6.25.3 Power of attorney in favour of the signatory duly authorizing the signatory shall be submitted in a separate envelope to the tendering authority before the due date and time of submission of the e-Tender.

6.25.4 The envelope shall be addressed to the Authority as per Bid Data Sheet.

6.25.5 The envelope shall bear name of procurement, the tender no. and the words "DO NOT OPEN BEFORE" (due date). If the envelopes are not sealed & marked properly, RailTel will not be responsible for its misplacement, premature opening, late opening etc.

6.25.6 The tenderer's bids will be opened at the time & date of opening of the tender given in the Bid Data Sheet (BDS) in the online simultaneous presence of such Tenderers/ Representatives who choose to be present online. The Tenders/Representatives can also choose to be physically present in the office of RailTel for the Online Public Tender Opening Event.

6.25.7 Bids received after due date and time shall be summarily rejected and shall not be opened.

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CHAPTER-7

GENERAL TENDER CONDITIONS

7.1 Acceptance of the Offers:-

The RailTel is not bound to accept the lowest or any offer and reserve to itself the right to accept any offer in respect of the whole or any portion of the item specified in the tender and contractor shall be required to supply at the rate quoted.

7.2. Quantity to be ordered:-

- a) RailTel reserves the right to cancel the tender for full or part quantity tendered without assigning any reason.
- b) The purchaser reserves the right to increase and /or decrease the order quantity by a quantity not exceeding 30% of the ordered quantity on the same price and terms and conditions during the currency of the contract, with suitable delivery schedule for the enhanced quantity.

7.3 Quotations for Imported items:-

7.3.1 Imported Stores offered by Indian Agents in Indian Currency :

Any authorized dealer / agent / recognized industrial distributor quoting on behalf of their Foreign principal in Indian Rupees shall have to comply with the following:-

- a) To quote with tender specific authorization from the foreign manufacturer.
- b) (i) While quoting on behalf of foreign principals' tenderers are required to
Furnish the principal's invoice / Performa invoice along with their quotation.
- (ii) Performa invoices however, may be accepted in exceptional cases where, it is not possible to obtain the invoices before the contract is placed.
- c) The tenderer shall have to undertake in the tender to comply with the following –
 - i) Consent to furnish copy of customs out passed bill of entry for the goods, relevant to each consignment, Manufacturer's Test and Guarantee certificate issued by the manufacturer, Copy of Bill of Lading/AWB relevant to the consignment; Copy of commercial

invoice of the foreign manufacturer/principals relevant to each consignment.

ii) Current and valid authorization/dealership certificate of foreign manufacturer/ principal.

iii) Compliance of sea/air worthy packing condition in manufacturer's original packing with manufacturer's tamper proof seal and compliance of the Packing condition as laid down in Standard Conditions of Contract Para- 8.16.0

Failure to comply with any of the aforesaid conditions as referred above will make the offer liable to be rejected.

7.3.2. Deleted

7.3.3 Tenderer has to indicate the following while submitting the offer:

- a) The precise relationship between the foreign manufacturer/principal and their agents/ associates.
- b) The mutual interest which the manufacturer/principal and the Indian agent / associates have in business of each other is to be indicated.
- c) Indian agent's Permanent Account Number is to be indicated.

7.4 Payment Terms:

- a) 90% of the value of the part supply of the equipment/material on receipt by the consignee at site duly inspected and accompanied with the following documents and any other documents mentioned in the contract:-

(i) Invoice. (ii) Delivery Challan (iii) contractor's certificate of dispatch (iv) Excise duty payment gate pass or equivalent (v) Inspection certificate (vi) Consignee's receipt (vii) Warranty guarantee certificate of OEM (viii) Insurance certificate (ix) Undertaking against Fall Clause (x) OEM's certificate that the material/equipment supplied is as per specifications /the quantity material supplied is as per the SOR.

- b) Balance 10% value of supply on receipt and acceptance of full supply at site by consignee.

OR

100% payment may be made on receipt of documents stated in a) &b) in accordance with the accepted conditions provided that an additional Bank Guarantee for an amount equivalent to 10% of the value of the supplies valid for a period of six months is furnished by the supplier with the undertaking that the stores supplied shall be free from damages/shortages. In those cases where such damages/shortages

are intimated to the supplier in writing, the bank guarantee shall be extended without fail by the supplier for a suitable period at the request of the purchaser in writing. Failure to do so shall result in forfeiture of Bank Guarantee. The bank Guarantee will be released only after the cases are settled in accordance with the provisions of document.

7.5 Inspection:

- 7.5.1** The supplier/manufacturer shall send inspection call letter when the material is ready to be supplied and ready for inspection. The Inspection shall be carried out at supplier's/Manufacturer's premises by the Inspecting Authority
- 7.5.2** The supplier/manufacturer shall submit along with inspection call the details of test procedures, test programs, test parameters together with permitted values, etc., and their Quality Assurance Plan.
- 7.5.3** In case material/equipment fails during inspection, the fresh lot of same material/ equipment shall be offered without any extra cost, by the manufacturer/supplier. In such a case, total cost of re-inspection including travel, lodging & boarding of the inspecting officials shall be to manufacturer's / supplier's account/cost.
- 7.5.4** Inspection of the material including that of raw material if deemed required shall be conducted by BSNL or representative authorized by RailTel in exceptional circumstances, at the firm's premises. The inspection shall be conducted by inspecting authority as per required test procedures /test plan for ensuring that the material offered meets the required specifications.
- 7.5.5** The material should be offered for inspection within three weeks of issue of purchase order. Travelling, lodging and boarding expenses of RailTel representative and charges for third party inspection if any shall be borne by RailTel, but necessary facilities to carry out test /witness inspection shall be provided by the manufacturer/supplier, free of cost.
- 7.5.6** The manufacturer shall maintain stock register (receipt, issue and balance) and defect records for the raw material. The defect records shall be in standard formats and it shall be compiled on a daily/ weekly/ monthly basis and it shall be analysed. "NIL" Report shall be segregated from the accepted material. First-in First-out concept shall be implemented in foolproof manner. The batches of the raw material shall be identified and traceable. All relevant documents necessary to ensure trace-ability shall be maintained. The raw material shall be protected from direct exposure to sunlight, moisture, water ingress and heat etc.
- 7.5.7** Finished products shall be tested 100% by the factory QC personnel before being offered to RailTel for acceptance to ensure that it meets all

quality requirements as per the relevant specifications. Duly filled in test formats indicating the results of such tests shall be submitted along with material offered for inspection to RailTel.

7.6 Terms of Delivery:

- a) Mode of dispatch should be by road / reputed courier / in person through the authorized representative of the Tenderer.
- b) Tenderer shall submit the offer clearly on CIP destination basis.
- c) Transit Insurance for risk in transit should be arranged by the supplier, since risk in transport in all such cases rests with the supplier.

7.7 Delivery Schedule

- a) The tenderer should note the required delivery schedule of RailTel given in the tender schedule /offer form and quote accordingly. Vague Delivery terms must be avoided and if quoted will be taken as commercially unresponsive to RailTel's requirement.
- b) Time for and the Date of delivery as specified in tender schedule /offer form is the essence of the Contract. However extension of Delivery date may be considered in deserving cases where genuine reasons exist. Such extensions of delivery date may be considered with or without Liquidated damages and Denial Clause as per Standard conditions of Contract.
- c) Recover from the Contractor as agreed liquidated damages and not by way of penalty a sum equivalent to half per cent of the price of any stores (including elements of taxes, duties, freight, etc.) which the Contractor has failed to deliver within the period fixed for delivery in the contract or as extended for each week or part of a week during which the delivery of such stores may be in arrears where delivery thereof is accepted after expiry of the aforesaid period **The upper limit for recovery of liquidated damages will be 10% (Ten Percent) of Total contract value provided in the contract.**

7.8 Deleted.

7.9 Marking of Material Supplied:

The tenderer should agree to indicate the Manufacture's Name, Month and Year of manufacturing by casting/stamping/etching/embossing, at an appropriate place of each piece supplied, without affecting the functional utility and structural stability of the components/material.

7.10 Procurement from Manufacturers Authorized agents / Distributors:

Only Manufacturers or their authorized Agents/ distributors need to quote with tender specific authorization from the manufacturers failing which offers are liable to be ignored.

Where a manufacturer appoints an agent or a distributor on the basis of a written agreement with him for a specific territory or specific set of items, he shall give an undertaking to the following effect.

- a) Direct dispatch from the premises of the manufacturer to the consignee.
- b) Submission of manufacturer's Test and Guarantee Certificate (MTGC) with each lot of supplies.

7.11 The RailTel Regions details:

S N	Region	Regional offices	Addresses	States
1	Northern Region	New-Delhi	Regional General Manager 6th Floor, IIRd Block, Delhi Technology Park, Shastri Park, Delhi-110053	Haryana, Rajasthan, Uttar Pradesh, Delhi, Jammu & Kashmir, Punjab, Madhya Pradesh, Himachal Pradesh, Uttranchal .
2	Eastern Region	Kolkatta.	Regional General Manager. 3rd Floor, Chatterjee International Centre, 33-A Jawaharlal Nehru Road, Kolkatta-700071.	West Bengal , Orissa , Bihar , Madhya Pradesh, Chattisgarh, Jharkhand, Assam, Tripura, Meghalaya, Manipur , Mizoram, Arunachal, Nagaland.
3	Southern Region	Secunderabad	Regional General Manager 2nd Floor B-Block, Rail Nilayam, Secunderabad-500071.	Andhra Pradesh, Tamil Nadu ,Karnataka, Kerala, Pondicherry.
4	Western Region	Mumbai	Regional General Manager Western Railway Microwave Complex, SenapatiBapatMarg, Mahalaxmi, Mumbai-400013.	Gujarat, Maharashtra, Karnataka, Rajasthan, Madhya Pradesh, Goa.

Each Region is headed by Executive Director(ED)/Regional General Manager (RGM), under whom, Additional General Manager / Deputy General Managers (Referred as DGM's) are working.

7.12 The requirement of the Tendered stores may be at any location within the Region indicated in clause 7.11.

7.13 Purchaser's right to accept any Bid and to reject any or all Bids:

The Purchaser reserves the right to accept or reject any bid, to annul the process at any time prior to award of contract and without thereby incurring any liability to the affected bidder or bidders on the grounds of the Purchaser's action.

7.14 Issue of Confirmed Supply Orders:

Corporate Office of RailTel will issue the Supply Orders within validity period of contract Agreement/Advance Purchase order.

7.15 Force Majeure Clause:

In the event of either party being rendered unable by force majeure conditions to perform any obligation to be performed by them under the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure events last. The cost and loss sustained by either party shall be borne by respective parties.

The term force majeure employed herein shall mean Act of God, war (declared or not), storms, floods, tsunami, restraints imposed by Governments, Riots, Strikes, Go Slow, Lock Out or any labour unrest at the works of the contractor (to be substantiated by the contractor with document), civil commotion, fire, accident, sabotage, earthquake or any other natural calamities, plague, quarantine, import or export embargoes, or change in Govt. policies or the like circumstances or any happening affecting the performance by the contractor or its obligations under this contract which, in the opinion of the RailTel, the contractor cannot reasonably prevent or control against.

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RAILTEL

Chapter 8

STANDARD CONDITIONS OF CONTRACT

8.0 Definitions and Interpretation.

8.0.1 In the Contract, unless the context otherwise requires;

8.0.2 "Acceptance of Tender" means the letter of memorandum communicating to the Contractor the acceptance of his tender and includes an advance acceptance of his tender;

8.0.3 "Consignee" means where the stores are required by the acceptance of tender to be dispatched by rail, road, air or steamer, the person specified in the Acceptance of Tender to whom they are to be delivered at the destination; Where the Stores are required by the acceptance of tender to be delivered to a person as an interim consignee for the purpose of dispatch to another person, such other persons; and in any other case the person to whom the stores are required by the acceptance of tender to be delivered in the manner therein specified.

8.0.4. "Contract" means and includes the invitation to tender, instructions to tenderers, acceptance of tender, Standard Conditions of Contract, Special Conditions of Contract, particulars and the other conditions specified in the acceptance of tender and includes a repeat order which has been accepted or acted upon by the contractor and a formal agreement if executed;

8.0.5. The "Contractor" means the person, firm or company with whom the order for the supply is placed and shall be deemed to include the contractor's successors (approved by the Purchaser), representatives, heirs, executors and administrators as the case may be, unless excluded by the terms of the contract

8.0.6. "The Sub-contractor" means the person, firm or company from whom the Contractor may obtain any material or fittings to be used in the supply or manufacture of the stores ;

8.0.7. "Drawing" means the drawing or drawings specified in or annexed to the Schedule or Specifications

8.0.8. "Government" means the Central Government or a State Government, as the case may be;

8.0.9. "The Inspecting Officer" means the person specified in the contract for the purpose of Inspection of stores or work under the contract and includes his authorized representative;

8.0.10. "Material" means anything used in the manufacture or fabrication of the stores

8.0.11. "Particulars" include-

(a)"Specifications" shall mean all directions, various technical specifications, provisions and requirements attached to the contract, as originally agreed and as modified from time to time by RailTel subject to price adjustments mutatis mutandis which pertain to the method and manner of performing the work or works to the quantities and qualities of the work or works and the materials to be furnished under the contract for the work or works as may be amplified or modified by RailTel-in-charge during the performance of the contract in order to provide for unforeseen conditions or in the best interest of the work or works. It shall also include the latest edition including all addenda / corrigenda of relevant Bureau of Indian standard specifications and other relevant codes governing a particular activity or facility. The term shall include the specifications specified in the contract in respect of each type of material/goods to be used in the execution of contract.

(b) Drawings

(c) Pattern bearing the seal and signature of the Inspecting Officer (hereinafter called the sealed pattern) which shall include also a certified copy thereof sealed by the Purchaser for the guidance of the Inspecting Officer;

(d) Sample sealed by the Purchaser for guidance of the Inspecting Officer (hereinafter called the certified sample) which shall include a certified copy thereof sealed by the Purchaser for the guidance of the Inspecting Officer;

(e) Trade pattern, that is to say, a pattern, stores conforming to which are obtainable in the open market and which denotes a standard of the Indian Standard Institute or other standardizing authority or a general standard of the industry:

(f) "Proprietary mark "or "brand" means the mark or brand of a product which is owned by an industrial firm;

(g) Any other details governing the construction, manufacture or supply of stores as may be prescribed by the contract;

8.0.12. " Purchase Officer" means the officer signing the acceptance of tender and includes any officer who has authority to execute the relevant contract on behalf of the Purchaser.

8.0.13. " The Purchaser "means RailTel Corporation of India Limited with its corporate office Plot No.143, Institutional Area, Sector-44, Gurgaon-

122003 NCR (INDIA) acting through Chairman & Managing Director or his authorized officer.

8.0.14. "Signed" includes stamped, except in the case of an acceptance of tender or any amendment thereof

8.0.15. "Site" means the place specified in the contract at which any work is required to be executed by the contractor under the contract or any other place approved by the Purchaser for the purpose;

8.0.16. "Stores" means the goods specified in the contract which the contractor has agreed to supply under the contract;

8.0.17. "Supply Order" means an order for supply of stores and includes an order for performance of service;

8.0.18. "Test" means such test as is prescribed by the particulars or considered necessary by the Inspecting Officer whether performed or made by the Inspecting Officer or any agency acting under the direction of the Inspecting officer;

8.0.19. "Unit" and "Quantity" means the unit and quantity specified in the contract;

8.0.20. "Engineer / Engineer-in-Charge" Shall mean an executive of RailTel in charge of works and shall include the superior executives of RailTel. He is responsible for ensuring that all fieldworks covered by the contract are carried out in accordance with approved designs, drawings & specifications and conditions of contract as agreed to. "Engineer's Representative" Shall mean the supervisor of RailTel in direct charge of the works.

8.0.21. The delivery of the stores shall be deemed to take place on delivery of the stores in accordance with the terms of the contract, after approval by the Inspecting Officer if so provided in the contract to

- (a) The consignee at his premises; or
- (b) Where so provided the interim consignee at his premises, or
- (c) A carrier or other person named in the contract for the purpose of transmission to the consignee, or
- (d) The consignee at the destination station in case of contract stipulating for delivery of stores at destination station.

8.0.22. "RailTel" Means M/s. RailTel Corporation of India Limited, which includes all the subordinate offices in Regions and territories.

8.0.23. Deleted

- 8.0.24.** "Tenderer" or "Bidder" Means and includes any firm of engineers or Contractors or any company or body, corporate or otherwise, who submit the Tender which has been invited.
- 8.0.25.** "Work or Works" Means all or any of the items of the work for which the Tenderer/ Contractor has Tendered/contracted according to the specifications, drawings annexed or to be implied there from, or incidental thereto or to be hereafter specified or required in such explanatory instructions and drawings, being in conformity with the original specifications, drawings, Annexure and schedules and also such instructions and drawings additional to the aforementioned as may from time to time be issued by the Purchaser's Engineer during the progress of the contracted work.
- 8.0.26.** "Bid" or "Tender" shall mean the proposal/document that the BIDDER submits as his offer with price and conditions in the requested and specified format as detailed in 'Specifications' / 'Tender documents
- 8.0.27.** "Purchaser's Engineer" Means the Chairman & Managing Director of RailTel or successor who will decide all matters relating to design, manufacture, installation and commissioning of the plant and equipment at site.
- 8.0.28.** "CIP (Carriage & Insurance Paid) Destination" means the date of delivery would be the date on which the delivery is affected at the consignee's end within any of the RailTel's Region.
- 8.0.29.** Words in the singular include the plural and vice versa
- 8.0.30.** Words importing the masculine gender shall be taken to include the feminine gender and words importing persons shall include any company or association or body of individuals, whether incorporated or not;
- 8.0.31.** The heading of these conditions shall not affect the interpretation or construction thereof;
- 8.0.32.** Terms and expression not herein defined shall have the meanings assigned to them in the Indian Sale of Goods Act, 1930 (as amended), or the Indian Contract Act, 1872 (as amended) or the General Clauses Act, 1897 (as amended), as the case may be.
- 8.1.0 Parties-**The parties to the contract are the Contractor and the Purchaser, as defined in Clauses 8.0.5 and 8.0.13.
- 8.1.1.** Authority of person signing the Contract on behalf of the Contractor-A person signing the tender or any other document in respect of the Contract on behalf of the Contractor without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the Contractor. If it is discovered at any time that the person so signing has

no authority to do so, the Purchaser may, without prejudice to any other right or remedy of the Purchaser, cancel the contract and make or authorize the making of a purchase of the stores at the risk and cost of such person and hold such person liable to the Purchaser for all costs and damages arising from the cancellation of the contract including any loss which the Purchaser may sustain on account of such purchase. The provisions of Clause 8.6.0 and 8.6.2 shall apply to every such purchase as far as applicable.

8.1.2. Address of the Contractor and notices and communications on behalf of the Purchaser:-

- (a) For all purposes of the contract, including arbitration there under, the address of the Contractor mentioned in the tender shall be the address to which all communications addressed to the Contractor shall be sent, unless the Contractor has notified change by a separate letter containing no other communication and sent by registered post acknowledgement due to the Purchaser. The Contractor shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid.
- (b) Any communication or notice on behalf of the Purchaser in relation to the contract may be issued to the Contractor by the Purchase Officer and all such communications and notices may be served on the Contractor either by registered posts or under certificate of posting or by ordinary post or by hand delivery at the option of such officer.

8.2.0. Quotations of rates by Contractors

- (a) The price quoted by the Contractor shall not be higher than the controlled price fixed by law for the stores or where there is no controlled price, it shall not exceed the prices or contravenes the norms for fixation of prices laid down by Government or where no such prices or norms have been fixed by the Government, it shall not exceed the price appearing in any agreement relating to price regulation by any industry in consultation with the Government.

In any case, save for special reasons stated in the tender, the price quoted shall not be higher than the lowest price charged by the Contractor for stores of the same nature, class or description to a private purchaser, domestic or foreign as well as Purchaser Governments.

- (b) If the price quoted is higher than the controlled price or where there is no controlled price, the price usually charged by the Contractor from a private Purchaser, domestic or foreign, as well as Purchaser Government for the stores of the same nature, class or description the Contractor will specifically mention this fact in his tender giving reasons for quoting higher price(s). If he fails to do so or makes any mis-statement, it shall be lawful for the Purchaser,

- (i) to revise the price at any stage so as to bring it in conformity with the Sub-clause
- (a) above or
- (ii) to terminate the contract and forfeit the Security Deposit.

8.3.0. Contract.

8.3.1. This contract is for the supply of the stores of the description, specifications and drawings, and in the quantities set forth in the contract on the date or dates specified therein. Unless otherwise specified, the stores shall be entirely brand new and of the best quality and workmanship to the satisfaction of the Inspecting Officer. The stores shall further be in all respects acceptable to the Inspecting Officer.

8.3.2 Any variation or amendment of the contract shall not be binding on the Purchaser unless and until the same is duly endorsed on the contract or incorporated in a formal instrument or in exchange of letters and signed by the parties.

8.4.0. Security Deposit.

8.4.1. Unless otherwise agreed between the Purchaser and the Contractor, the Contractor shall, within 15 days after written notices of acceptance of the tender has been posted to the Contractor, deposit with the RailTel concerned (in cash or the equivalent in Government Securities or approved Banker's Guarantee Bond) a sum equal to 10 per cent of the total value of the stores detailed in the contract for which the tender has been accepted, as a security for the due fulfillment of the contract.

8.4.2. If the Contractor, having been called upon by the Purchaser to furnish security, fails to make and to maintain a security deposit within the specified period, it shall be lawful for the Purchaser -

- (a) To recover from the Contractor the amount of such security deposit by deducting the amount from the pending bills of the Contractor under the contract or any other contract with the Purchaser or any person contracting through the Purchaser or otherwise howsoever, or
- (b) To cancel the contract or any part thereof and to purchase or authorise the purchase of the stores at the risk and cost of the Contractor and in that event the provisions of Clause 8.6.2 shall apply as far as applicable.

8.4.3. No claim shall lie against the Purchaser in respect of interest on cash deposits or securities etc.

8.4.4. The Purchaser shall be entitled and it shall be lawful on his part to forfeit the said security deposit in whole or in part in the event of any default, failure or neglect on the part of the Contractor in the fulfillment or

performance in all respect of the contract under reference or any other contract with the Purchaser or any part thereof to the satisfaction of the Purchaser and the Purchaser shall also be entitled to deduct from the said deposits any loss or damage which the Purchaser may suffer or be put by reason of or due to any act or other default, recoverable by the Purchaser from the Contractor in respect of the contract under reference or any other contract and in either of the events aforesaid to call upon the Contractor to maintain the said security deposit at its original limit by making further deposits, provided further that the Purchaser shall be entitled to recover any such claim from any sum then due or which at any time thereafter may become due to the Contractor under this or any other contracts with the Purchaser.

8.5.0. Delivery.

8.5.1. The Contractor shall as may be required by the Purchaser either deliver free or CIP (Carriage & Insurance Paid) or CIF (Cost, Insurance & Freight) at the place/places detailed in the contract, the quantities of the stores detailed therein and the stores shall be delivered not later than the date specified in the contract. The delivery will not be deemed to be complete until and unless the stores are inspected and accepted by the Inspecting Officer as provided in the contract.

8.5.2. The Purchaser shall not be liable to render assistance to the Contractor in securing or to arrange for or provide transport to the Contractor unless it is so specifically stated in the contract.

8.5.3. Notwithstanding any inspection and approval by the Inspecting Officer on the Contractor's premises, property in the stores shall not pass on to the Purchaser until the stores have been received, inspected and accepted by the consignee.

8.5.4. No stores shall be deliverable to the consignee on Sundays and public holidays without the written permission of the consignee.

8.6.0. Time for and Date of Delivery; the Essence of the Contract-

The time for and the date specified in the contract or as extended for the delivery of the stores shall be deemed to be of the essence of the contract and delivery must be completed not later than the date(s) so specified or extended.

8.6.1. Progressing of Deliveries- The Contractor shall allow reasonable facilities and free access to his works and records to the Inspecting Officer, Progress Officer or such other Officer as may be nominated by the Purchaser for the purpose of ascertaining the progress of the deliveries under the contract.

8.6.2. Failure and Termination:- If the Contractor fails to deliver the stores or any installment thereof within the period fixed for such delivery in the contract or as extended or at any time repudiates the contract before the expiry of such period the Purchaser may without prejudice to his other rights:-

- (a) recover from the Contractor as agreed liquidated damages and not by way of penalty a sum equivalent to Half per cent of the price of any stores (including elements of taxes, duties, freight, etc.) which the Contractor has failed to deliver within the period fixed for delivery in the contract or as extended for each week or part of a week during which the delivery of such stores may be in arrears where delivery thereof is accepted after expiry of the aforesaid period **The upper limit for recovery of liquidated damages will be 10% (Ten Percent) of Total contract value provided in the contractor**
- (b) Cancel the contract or a portion thereof and forfeit the security deposit or encash performance bank guarantee.
- (c) Cancel the contract or a portion thereof and if so desired purchase or authorize the purchase of the stores not so delivered or others of a similar description (where stores exactly complying with particulars are not, in the opinion of the Purchaser, which shall be final, readily procurable) at the risk and cost of the contractor.

It shall, however, be in the discretion of the Purchaser to collect or not the security deposit from the firm/firms on whom the contract is placed at the risk and expense of the defaulted firm.

Where action is taken under sub-clause (b) above, the contractor shall be liable for any loss which the purchaser may sustain on the account provided the purchase, or if there is an agreement to purchase, such agreement is made, in case of failure to deliver the stores within the period fixed for such delivery in the contract or extended within Nine months from the date of such failure and in case of repudiation of the contract before the expiry of the aforesaid period of delivery, within Nine months from the date of cancellation of the contract. The contractor shall not be entitled to any gain on such purchase and the manner and method of such purchase shall be in the entire discretion of the purchaser. It shall not be necessary for the purchaser to serve a notice of such purchase to the contractor.

8.6.2.1 Termination for Default - In the event of any breach of contract by the contractor, in addition to remedies available to the purchaser as above, purchaser also reserves the right to disqualify the contractor, who fails to discharge it's obligation under the contract, at any time for any specified period from future tender(s) and /or ban the business dealings with the defaulting contractor without any further notice. The decision of the purchaser shall be final and binding on the contractor.

8.6.3 Consequence of Rejection- If on the stores being rejected by the Consignee at the destination, the Contractor fails to make satisfactory supplies within the stipulated period of delivery, the Purchaser shall be at liberty to: -

- (i) require the Contractor to replace the rejected stores forthwith but in any event not later than a period of 21 days from the date of rejection and the Contractor shall bear all cost of such replacement including freight, if any, on such replacing and replaced stores but without being entitled to any extra payment on that or any other account, or
- (ii) Cancel the contract and forfeit security deposit/encash Performance Bank Guarantee.
- (iii) the purchaser authorize the purchase of quantity of the stores rejected or others of a similar description (when stores exactly complying with particulars are not in the opinion of the purchaser which shall be final, readily available) without notice to the contractor at his risk and cost and without affecting the contractor's liability as regards the supply of any further installment due under the contract, or

8.7.0. Extension of Time for Delivery-

If such failure as aforesaid shall have arisen from any cause which the Purchaser may admit as reasonable ground for extension of time, the Purchaser shall allow such additional time as he considers to be justified by the circumstance of the case, and shall forgo the whole or such part, as he may consider reasonable, of his claim for such loss or damage as aforesaid.

8.8.0. Examination of Drawing, Specifications and Patterns-

When tenders are called for in accordance with a drawing, specification or sealed pattern the Contractor's tenders to supply in accordance with such drawing, specifications or sealed pattern shall, be deemed to be an admission on his part that he has fully acquainted himself with the details thereof and, in no circumstances, will any claim on his part which may arise on account of his insufficient examination of the said drawing, specification or scaled pattern, be considered.

8.9.0. Mistakes in Drawing.

The Contractor shall be responsible for and shall pay for any alterations for the works due to any discrepancies, errors or omissions in the

drawings or other particulars supplied by him whether such drawings or particulars have been approved by the Purchaser or not provided that such discrepancies, errors or omissions be not due to inaccurate information or particulars furnished to the Contractor on behalf of the Purchaser. If any dimension figure upon a drawing or plan differ from those obtained by scaling the drawing or plan, the dimensions as figured upon the drawing or plan shall be taken as correct.

8.10.0. Samples.

8.10.1 Advance Sample- Where an advance sample is required to be approved under the terms of the contract, the Contractor shall submit the sample free of cost to the Inspecting Officer within the time specified in the acceptance of tender. If the Contractor is unable to do so, he must apply immediately to the Office issuing the acceptance of tender for extension of time stating the reasons for the delay. If the Purchaser is satisfied that a reasonable ground for an extension of time exists, he may allow such additional time as he considers to be justified (and his decision shall be final) with or without alteration in the delivery period stipulated in the acceptance of tender and on such conditions as he deems fit. In the event of the failure of the Contractor to deliver the advance sample by the date specified in the acceptance of tender or any other date to which the time may be extended as aforesaid by the Purchaser or of the rejection of the sample, the Purchaser shall be entitled to cancel the contract and, if so desired, purchase or authorize the purchase of the stores, in which case the provisions of Clause 8.6.0 shall apply as far as applicable.

8.10.2. Unless otherwise provided in the contract, all samples required for test shall be supplied by the Contractor free of cost. Where sample, which is supplied free, is rejected after examination and test, the same or whatever remains of the sample, after examination and test will be returned to the Contractor at his request and cost within three months of the date of such rejection at public tariff rate at Owner's risk.

8.10.3. Marking- Samples submitted shall be clearly labeled with the Contractor's name and address and the acceptance of tender number.

8.10.4. If the Contractor submits a sample whether with, before or after the tender, the same shall not govern the standard of supply except when it has been specifically stated so in the acceptance of tender.

8.10.5. Where under the contract, the Contractor is required to submit an advance sample, any expenses incurred by the Contractor on or in connection with the production of stores in bulk, before the sample has been approved unconditionally, shall be borne by the Contractor and he shall not claim any compensation in the event of such sample being found unacceptable by the Inspecting Officer.

- 8.10.6.** The rejection of the sample by the Inspecting Authority or Inspecting Officer shall be final and binding on the Contractor.
- 8.10.7.** Where the contract does not require any advance sample to be approved, the Contractor may before proceeding with bulk manufacture or delivery of the stores, if he so desires, submit to the Inspecting Officer for inspection a sample of the stores in which case a quantity not less than one per cent of the total quantity to be supplied unless otherwise authorized by the Inspecting Officer shall be submitted. The Contractor shall not, however, be entitled to be shown any consideration or give any extension of time or claim to be exonerated from completing the delivery within the stipulated period only on the ground of delay in the approval of any such sample.
- 8.11.0. Risk of Loss or Damage to Purchaser's Property.**
- 8.11.1** All the property of the Purchaser loaned whether with or without deposit on terms and conditions to be separately agreed upon in respect of each particular contract to the Contractor in connection with the contract shall remain the property of the Purchaser, as the case may be. The Contractor shall use such property for the purpose of the execution of the contract and for no other purpose whatsoever.
- 8.11.2.** All such property shall be deemed to be in good condition when received by the Contractor unless he shall have within twenty-four hours of the receipt thereof notified the Purchase Officer to the contract. If the Contractor fails to notify any defect in the condition or quality of such property he shall be deemed to have lost the right to do so at any subsequent stage.
- 8.11.3.** The Contractor shall return all such property and shall be responsible for the full value thereof to be assessed by the Purchaser whose decision shall be final and binding on the Contractor. The Contractor shall be liable for loss or damage to such property from whatever cause happening while such property is in the possession of or under the control of the Contractor, his servants, workmen, or agents.
- 8.11.4.** Where such property is insured by the Contractor against loss or fire at the request of the Purchaser such insurance shall be deemed to be effective by way of additional Precaution and shall not prejudice the liability of the Contractor as aforesaid.
- 8.12.0. Facilities for test and Examination-** The Contractor shall, at his own expense afford to the Inspecting Officer all reasonable facilities as may be necessary for satisfying himself, that the stores are being and/or have been manufactured in accordance with the particulars. The Inspecting Officer shall have full and free access at any time during the execution of the contract to the Contractor's work for the purpose aforesaid, and he may require the Contractor to make arrangements for inspection of the

stores or any part thereof or any material at his premises or at any other place specified by the Inspecting Officer and if the Contractor has been permitted to employ the services of a Sub-Contractor, he shall in his contract with the Sub-Contractor, reserve to the Inspecting Officer a similar right.

8.12.1. Cost of Test- The Contractor shall provide, without any extra charge, all materials, tools, labour and assistance of every kind which the Inspecting Officer may demand of him for any test and examination, other than special or independent test, which he shall require to make on the Contractor's or Consignee's Premises and the Contractor shall bear and pay all costs attendant thereon. If the Contractor fails to comply with the conditions aforesaid, the Inspecting Officer shall, in his sole judgment, be entitled to remove for test and examination all or any of the stores manufactured by the Contractor to any premises other than his (Contractor's) and in all such cases the Contractor shall bear the cost of transport and/or carrying out such tests elsewhere. A certificate in writing of the Inspecting Officer that the Contractor has failed to provide the facilities and the means, for test examination shall be final.

8.12.2. Delivery of Stores for Test- The Contractor shall also provide and deliver for test, free of charge, at such place other than his premises as the Inspecting Officer may specify, such material or stores as he may require.

8.12.3. Liability for Costs of Special or Independent Test- In the events of rejection of stores or any part thereof by the Inspecting Officer in the consequence of the sample which is removed to the laboratory or other places of test, being found on test not in conformity with the Contract and in the event of the failure of the Contractor for any reason to deliver the stores passed on test within the stipulated period, the Contractor shall, on demand pay to the Purchaser all costs incurred in the inspection and/or test. Cost of test shall be assessed at the rate charged by the laboratory to private persons for similar work.

8.12.4. Method of Testing- The Inspecting Officer shall have the right to put all the stores or materials forming part of the same or any part thereof to such tests as he may think fit and proper. The Contractor shall not be entitled to object on any ground whatsoever to the method of testing adopted by the Inspecting Officer.

8.12.5. Stores Expended in Test- Unless otherwise provided for in the contract if the test proves satisfactory and the stores or any installment thereof is accepted, the quantity of the stores or materials expended in the test will be deemed to have been taken delivery of by the Purchaser and be paid for as such.

8.12.6. Powers of Inspecting Officer- The Inspecting Officer shall have the power:-

- (i) Before any stores or part thereof are submitted for inspection to certify that they cannot be in accordance with the contract owing to the adoption of any unsatisfactory method of manufacture.
- (ii) To reject any stores submitted as not being in accordance with the particulars.
- (iii) To reject the whole of the installment tendered for inspection, if after inspection of such portion thereof as "he may in his discretion think fit", he is satisfied that the same is unsatisfactory.
- (iv) The Inspecting Officer's decision as regards the rejection shall be final and binding on the Contractor.

8.13.0. Charges for Work Necessary for Completion of the Contract-

The Contractor shall pay all charges for handling, stamping, painting, marking, protecting or preserving patent rights, drawings, templates, models and gauges and for all such measures as the Purchaser or the Inspecting Officer may deem necessary for the proper completion of the contract, though special provision therefore may not be made in the specification of drawings.

8.14.0. Responsibility of the Contractor for Executing the Contract.

8.14.1. Risk in the Stores- The Contractor shall perform the contract in all respects in accordance with the terms and conditions thereof. The stores and every constituent part thereof, whether in the possession or control of the Contractor, his agents or servants or a carrier, or in the joint possession of the Contractor, his agents or servants and the Purchaser, his agents or servants, shall remain in every respect at the risk of the Contractor, until their actual delivery to the consignee at the stipulated place or destination or, where so provided in the acceptance of tender, until their delivery to a person specified in the contract as interim consignee for the purpose of dispatch to the consignee. The Contractor shall be responsible for all loss, destruction, damage or deterioration of or to the stores from any cause whatsoever while the stores after approval by the Inspecting Officer are awaiting dispatch or delivery or are in the course of transit from the Contractor to the consignee or, as the case may be, interim consignee. The Contractor shall alone be entitled and responsible to make claims against a RailTel Administration or other carrier in respect of non-delivery, short delivery, mis-delivery, loss, destruction, damage or deterioration of the goods entrusted to such carrier by the Contractor for transmission to the consignee or the interim consignee as the case may be.

8.14.2. Consignee's Right of Rejection – Notwithstanding any approval which the Inspecting Officer may have given in respect of the stores or any materials or other particulars or the work or workmanship involved in the performance of the contract (whether with or without any test carried out by the Contractor or the Inspecting Officer or under the direction of the

Inspecting Officer) and notwithstanding delivery of the stores where so provided to the interim consignee, it shall be lawful for the consignee, on behalf of the Purchaser, to reject the stores or any part, portion or consignment thereof within a reasonable time after actual delivery thereof to him at the place or destination specified in the contract if such stores or part, portion or consignment thereof is not in all respects in conformity with the terms and conditions of the contract whether on account of any loss, deterioration or damage before dispatch or delivery or during transit or otherwise howsoever.

Note- In respect of materials pre-inspected at the firm's premises the consignee will issue rejection advice within 90 days from the date of receipt.

8.14.3. Provided that where, under the terms of the contract the stores are required to be delivered to an interim consignee for the purpose of dispatch to the consignee, the stores shall be at the Purchaser's risk after their delivery to the interim consignee, but nevertheless it shall be lawful for the consignee on behalf of the Purchaser to reject the stores or any part, portion of consignment thereof upon their actual delivery to him at the destination if they are not in all respects in conformity with the terms and conditions of contract except where they have been damaged or have deteriorated in the course of transit or otherwise after their delivery to the interim consignee.

8.14.4. The provisions contained in Clause 8.19.0 relating to the removal of stores rejected by the Inspecting Officer shall mutatis mutandis apply to stores rejected by the consignee as herein provided.

Note- In respect of stores inspected during manufacture or before delivery or dispatch at contractor's premises the consignee will issue communication of rejection within 90 days from the date of actual delivery thereof.

8.14.5. Subletting and Assignment- The Contractor shall not, save with the previous consent in writing of the Purchaser, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof any manner whatsoever.

In the event of the Contractor's subletting or assigning this contract or any part thereof without such permission, the Purchaser shall be entitled to cancel the contract and to purchase the stores elsewhere on the Contractor's account and risk and the Contractor shall be liable for any loss or damage which the Purchaser may sustain in consequence or arising out of such purpose.

8.14.6. Changes in a Firm:-

- a) Where the Contractor is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the

Purchaser, which may be granted only upon execution of a written undertaking by the new partner to perform the contract and accept all liabilities incurred by the firm under the contract prior to the date of such undertaking.

- b) On the death or retirement of any partner of the Contractor firm before complete performance of the contract, the Purchaser may, at his option, cancel the contract and in such case the Contractor shall have no claim whatsoever to compensation against the Purchaser.
- c) If the contract is not determined as provided in Sub-clause (b) above notwithstanding the retirement of a partner from the firm he shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under Section 32 of the Partnership Act, has been sent by him to the Purchaser by registered post acknowledgement due.
- d) **Consequence of breach** - Should a partner in the Contractor firm commit a breach of Sub-clause 8.14.5 above or the Contractor should commit a breach of the conditions 8.14.6 (a) of this Sub-clause, it shall be lawful for the Purchaser to cancel the contract and purchase or authorize the purchase of the stores at the risk and cost of the Contractor and in that event the provisions of Clauses 8.5.0 and 8.6.0 as far as applicable shall apply.
- e) The decision of the Purchaser as to any matter or thing concerning or arising out of this sub-clause or on any question whether the Contractor or any partner of the Contractor firm has committed a breach of any of the conditions in this sub-clause contained shall be final and binding on the Contractor.

8.15.0. Indemnity.

8.15.1. The Contractor shall at all times indemnify the Purchaser against all claims which may be made in respect of the stores for infringement of any right protected by patent, registration of designs or trade mark. Provided always that in the event of any claim in respect of alleged breach of letters patent, registered designs or trade mark being made against the Purchaser, the Purchaser shall notify the Contractor of the same and the Contractor shall, at his own expense, either settle any such dispute or conduct any litigation that may arise there from.

8.15.2. The Contractor shall not be liable for payment of any royalty, license fee or other expenses in respect of or for making use of patents or designs with respect to which he is according to the terms of the contract, to be treated as an agent of the Government for the purpose of making use of patent or trade mark for fulfillment of the contract.

8.16.0. Packing.

- 8.16.1.** The Contractor shall pack at his own cost the stores sufficiently and properly for transit by rail/road, air and/or sea as provided in the contract so as to ensure their being free from loss or damage on arrival at their destination.
- 8.16.2.** Unless otherwise, provided in the contract all containers (including packing cases, boxes, tins, drums and wrappings) in which the stores are supplied by the contractor, shall be considered as non-returnable and their cost as having been included in the contract price.
- 8.16.3.** If the contract provides that the containers shall be returnable, they must be marked "Returnable" and they will be returned to the Contractor as per terms of the contract.
- 8.16.4.** If the contract provides that returnable containers shall be separately charged, they shall be invoiced by the Contractor at the price specified in acceptance of tender. In such cases, the Contractor shall give full credit for the invoiced amount if the containers are returned to the Contractor. Return of containers shall be made within a reasonable time and in the event of any dispute or difference arising as to whether the containers were so returned, the decision of the Purchaser thereon shall be final and binding and the Purchaser may, in his discretion award, such compensations as may in his opinion be proper for any undue delay in returning the containers.
- 8.16.5.** Each bale or package delivered under the contract shall be marked by the Contractor or at his own expense. Such marking shall be distinct (all previous irrelevant marking being carefully obliterated) and shall clearly indicate the description and quantity of the stores, the name and address of the Consignee, the gross weight of the package and the name of the Contractor with a distinctive number or mark sufficient for the purpose of identification. All markings shall be carried out with such material as may be found satisfactory by the Inspecting Officer as regards quickness of drying, fastness and indelibility.
- 8.16.6.** The Inspecting Officer may reject the stores if the stores are not packed/or marked as aforesaid and in case where the packing materials are separately prescribed, if such materials are not in accordance with the terms of the contract. Such rejection of the stores by the Inspecting Officer shall be final and binding on the Contractor.
- 8.16.7.** Each bale or package shall contain a packing note specifying the name and address of the Contractor, the number and date of the acceptance of tender or supply order and the designation of the Purchase Officer issuing the supply order, the description of the stores and the quantity contained in such bale or package.

8.17.0 Notification of Delivery.

Notification of delivery or dispatch in regard to each and every installment shall be made to the consignee and to the indent or immediately on dispatch or delivery. The Contractor shall further supply to the consignee, or the interim consignee, as the case may be, a packing account Quoting number of the acceptance of tender and/or supply or repeat and date of dispatch of the stores. All packages, containers, bundles and loose materials part of each and every installment shall be fully described in the packing account and full details of the contents of the packages and quantity of materials shall be given to enable the consignee to check the stores on arrival at destination. The Railway Receipt/Consignment Note or Bill of Lading, if any, shall be forwarded to the consignee by registered post immediately on the dispatch of stores. The Contractor shall bear and reimburse to the Purchaser demurrage charges, if any, paid by reason of delay on the part of the Contractor in forwarding the Railway Receipt, Consignment Note or Bill of Lading.

8.18.0. Progress Reports.

- 8.18.1.** The Contractor shall from time-to-time, render such reports concerning the progress of the contract and/or supply of the stores in such form as may be required by the Purchaser.
- 8.18.2.** The submission, receipt and acceptance of such reports shall not prejudice the rights of the Purchaser under the contract, nor shall operate as an estoppel against Purchaser merely by reason of the fact that he has not taken notice of or subjected to test any information contained in such report.

8.19.0. Removal of Rejected Stores.

- 8.19.1.** On rejection of all stores submitted for inspection at a place other than the premises of the Contractor, such stores shall be removed by the Contractor at his own cost subject as hereinafter stipulated, within 21 days of the date of intimation of such rejection. If the concerned communication is addressed and posted to the Contractor at the address mentioned in the contract, it will be deemed to have been served on him at the time when such communication would be in the course of ordinary post reach the Contractor. Provided that the Inspecting Officer may call upon the Contractor to remove dangerous, infected or perishable stores within 48 hours of the receipt of such communication and the decision of the Inspecting Officer in this behalf shall be final in all respects.

Provided further that where the price or part thereof has been paid, the consignee is entitled without prejudice to his other rights to retain the rejected stores till the price paid for such stores is refunded by the Contractor save that such retention shall not in any circumstances be deemed to be acceptance of the stores or waiver of rejection thereon.

8.19.2. All rejected stores shall in any event and circumstances remain and always be at the risk of the Contractor immediately on such rejection. If such stores are not removed by the Contractor within the periods aforementioned, the Inspection Officer may remove the rejected stores and either return the same to the contractor at his risk and cost by such mode of transport as the Purchaser or Inspecting Officer may decide, or dispose of such stores at the Contractor's risk and on his account and retain such portion of the proceeds, if any from such disposal as may necessary to recover any expense incurred in connection with such disposals (or any price refundable as a consequence of such rejection). The Purchaser shall, in addition, be entitled to recover from the Contractor ground rent/demurrage charges on the rejected stores after the expiry of the time limit mentioned above.

8.19.3. The stores that have been dispatched by road or courier and rejected after arrival at destination may be taken back by the Contractor either at the station where they were rejected or at the station from which they were sent, after refunding the price paid for such stores and other charges refundable as a consequence of such rejection. If the contract placed for delivery FOR station of dispatch, the Contractor shall pay the carriage charges on the rejected consignment at public tariff rates from the station of dispatch to the station where they are rejected. If the Contractor elects to take back the goods at the station from which they were dispatched, the goods shall in addition, be booked back to him freight to pay at public tariff rates and at owner's risk. The Contractor shall be liable to reimburse packing and incidental costs and charges incurred in such return or rejected stores in addition to other charges refundable as a consequence of rejection. The goods shall remain the property of the Contractor unless and until accepted by the Purchaser, after inspection.

8.20.0. System of Payment.

8.20.1. Unless otherwise agreed upon between the parties, payment for delivery of the stores will be made on submission of bills in the prescribed form which may be obtained from the Purchase Officer in accordance with the instructions given in the acceptance of Tender, by RTGS/NEFT as may be decided by the Purchaser.

8.20.2. Payment for the stores or for each consignment thereof will be made to the Contractor on submission of bills accompanied by required document in accordance with the mutually agreed terms & conditions, procedure has been agreed to by the Purchaser.

8.20.3. In all other contracts or in contracts where the Inspecting Officer also acts as the interim consignee or where inspection is carried on by the Consignee himself at destination and in all cases of local delivery full payment shall be made on submission of " Final 100 percent bill "

supported by the Inspection Certificates and consignee's receipt as aforesaid to the Accounts Officer concerned.

8.21.0. Withholding and lien in respect of sums claimed.

8.21.1. Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, the Purchaser shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the Contractor and for the purpose aforesaid, the Purchaser shall be entitled to withhold the said cash security deposit or the security, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the Purchaser shall be entitled to withhold and have lien to retain to the extent of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time-thereafter may become payable to the Contractor under the same contract or any other contract with the Purchaser pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the Purchaser will be kept withheld or retained as such by the Purchaser till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the arbitration clause) or by the competent court as prescribed under clause 8.24.3 hereinafter provided, as the case may be, and that the Contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as' such to the Contractor.

8.21.2. For the purpose of Clause 8.21.1, where the Contractor is a partnership firm or a limited company, the Purchaser shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be, whether in his individual capacity or otherwise.

8.21.3. Lien in respect of Claims in other Contracts

- (a) Any sum of money due and payable to the Contractor (including the security deposit returnable to him) under the contract may withhold or retain by way of lien by the Purchaser or RailTel against any claim of the Purchaser or RailTel in respect of payment of a sum of money arising out of or under any other contract made by the Contractor with the Purchaser or RailTel.

- (b) It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Purchaser or RailTel will be kept withheld or retained as such by the Purchaser or RailTel till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitrator, if the contract is governed by the arbitration clause or by the competent court under Clause 8.24.3 hereinafter provided, as the case maybe, and that the Contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the Contractor.

8.22.0. Corrupt Practices

8.22.1. The contractor shall not offer or give or agree to give to any person in the employment of the purchaser or working under the orders of the Purchaser any gift or consideration of any kind as an inducement or reward for doing on for bearing to do or for having done or forborne to do any act in relation to the obtaining execution of the contract or any other contract with the Purchaser or for showing any favour or for bearing to show disfavor to any person in relation to the contract or any other contract with the Purchaser. Any breach of the aforesaid condition by the contractor or any one employed by him or acting on his behalf (whether with or without the Knowledge of the contractor) or the commission of any offence by the contractor or by any one employed by him or acting on his behalf under Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1947 or any other Act enacted for the prevention of corruption by public servants shall entitle the Purchaser to cancel the contract and all or any other contracts with the contractor and to recover from the contractor the amount of any loss arising from such cancellation in accordance with the provisions of Clauses 8.5.0 and 8.6.0.

8.22.2. Any dispute or difference in respect of either the interpretation effect or application of the above condition or of the amount recoverable there under by the Purchaser from the contractor, shall be decided by the Purchaser, whose decision thereon shall be final and binding on the contractor.

8.23.0. Insolvency and Breach of Contract.

8.23.1. The Purchaser may at any time, by notice in writing summarily determine the contract without compensation to the Contractor in any of the following events, that is to say:

- (a) If the Contractor being an individual or if a firm, any partner thereof, shall at any time, be adjudged insolvent or shall have a receiving order or order for administration of his estate made against him or shall take any

proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, **or**

- (b) If the Contractor being a company is wound up voluntarily or by the order of a Court or a Receiver, Liquidator or Manager on behalf of the Debenture-holders is appointed or circumstances shall have arisen which entitle the Court or Debenture holders to appoint a Receiver, Liquidator or Manager, **or**
- (c) If the Contractor commits any breach of the contract not herein specifically provided for. Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the Purchaser and provided also the Contractor shall be liable to pay to the Purchaser for any extra expenditure he is thereby put to and Contractor shall, under no circumstances, be entitled to any given on re-purchase.

8.24.0. Laws governing the Contract.

8.24.1. This contract shall be governed by the Laws of India for the time being in force.

8.24.2. Irrespective of the place of delivery, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.

8.24.3. Jurisdiction of courts- This Courts of the place from where the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

8.24.4. Marking of stores- The marking of the stores must comply with the requirements of the laws relating to merchandise marks for the time being in force in India.

8.24.5. Compliance with provisions of Contract Labour (Regulation and Abolition) Act, 1970:

- 1) The Contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contractor Labour (Regulation and Abolition) Central Rules, 1971, as modified from time-to-time, wherever applicable and shall also indemnify the Purchaser from and against any claims under the aforesaid Act and the Rules.

- 2) The Contractor shall obtain a valid license under the aforesaid Act as modified from time-to-time before the commencement of the contract and continue to have a valid license until the completion of the contract. Any failure to fulfill this requirement shall attract the penal provisions of the contract arising out of the resultant non-execution of the contract.
- 3) The Contractor shall pay to labour employed by him directly or through Sub-Contractors the wages as per provisions of the aforesaid Act and the Rules wherever applicable. The Contractor shall, notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour indirectly engaged on the contract including any engaged by his Sub-Contractors in connection with the said contract, as if the labour had been immediately employed by him.
- 4) In respect of all labour directly or indirectly employed in the contract for performance of the Contractor's part of the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and the Rules wherever applicable.
- 5) In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the Purchaser is obliged to pay any amount of wages to a workman employed by the Contractor or his Sub-Contractor in execution of the contract or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act and the Rules or to incur any expenditure on account of the contingent liability of the Purchaser due to the Contractor's failure to fulfill his statutory obligations under the aforesaid Act or the Rules the Purchaser will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the Purchaser under Section 20, Sub-section (2) and Section 21, Sub-section (4) of the aforesaid Act, the Purchaser shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/or from any sum due by the Purchaser to the Contractor whether under the contract or otherwise. The Purchaser shall not be bound to contest any claim made against it under Sub-section (i) of Section 20 and Sub-section (4) of Section 21 of the aforesaid Act except on the written request of the Contractor and upon his giving to the Purchaser full security for all costs for which the Purchaser might become liable in contesting such claim. The decision of the Purchaser regarding the amount actually recoverable from the Contractor as stated above, shall be final and binding on the Contractor.

8.25.0. Headings.

The headings of conditions hereto shall not affect the construction thereof.

8.26.0 Settlement of Disputes/ Arbitration

- 1) Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996 as amended and the award made in pursuance thereof shall be binding on the parties. The venue of such arbitration or proceedings thereof shall be at New-Delhi.
- 2) All arbitration proceedings shall be conducted in English. Recourse against any arbitral award so rendered maybe entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.
- 3) The Arbitral Tribunal shall consist of the Sole Arbitrator appointed by CMD/RailTel Corporation Of India Limited, if the value of claim is up to Rs. 10 lakh. If the value of the claim or amount under dispute is more than Rs. 10 Lakhs, the matter shall be referred to the adjudication of arbitral council. Chairman Managing Director (CMD) of RailTel Corporation shall furnish a panel of three names to the contractor, out of which, contractor will recommend one name to be his nominee and then CMD/RailTel shall appoint one name as RailTel's nominee and these two arbitrators with mutual consent shall appoint a third arbitrator who shall act as the deciding arbitrator in terms of Arbitration and Conciliation Act. The award of the sole arbitrator or the Arbitral council, as the case may be, shall be final and binding on both the parties. Each of the parties agree that notwithstanding that the matter may be referred to Arbitrator as provided herein, the parties shall nevertheless pending the resolution of the Controversy or disagreement, continue to fulfill their obligation under this Agreement so far as they are reasonably able to do so.

8.27.0. Inspection & Rejection:-

Where under a contract the price payable is fixed on FOR station of dispatch basis, the Contractor shall, if the consignee rejects the stores at destination be liable in addition to his other liabilities, to reimburse to the Purchaser the freight paid by the Purchaser.

8.27.1 Notification of Result of inspection.- Unless otherwise provided in the specification of schedule, the examination of the stores will be made as soon as practicable after the same have been submitted for inspection and the result of the examination will be notified to the Contractor.

8.27.2 Inspection Notes.--On the stores being found acceptable by the inspecting Officer he shall furnish the Contractor with necessary copies of Inspection Notes duly completed, for being attached to the Contractor's bill in support thereof.

8.28.0 Warranty/Guarantee

- 8.28.1 The supplier shall warrant that material to be supplied shall be new and free from all defects and faults in material, workmanship, manufacture and shall be of the highest grade consistent with the established and generally accepted standards of materials for the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defects (with respect to the specification of the material) that may develop subsequently under the conditions provided in the contract under proper use, arising out of faulty materials, design or workmanship such as corrosion, inadequate quantity of material to meet equipment requirements, deficiencies in design and/or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.
- 8.28.2 If it becomes necessary for the contractor to replace or renew any defective portion/portions of the supplies under this clause, the provisions of the clause shall apply to the portion/portions of the equipment/ material so replaced or renewed or until the end of the above mentioned period, whichever may be later. If any defect is not remedied within a reasonable time, the Purchaser may proceed to do the work at the contractor's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the contractor in respect of such defects.
- 8.28.3 Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges.
- 8.28.4 The Contractor/Seller hereby covenants that it is a condition of the contract that all goods/stores/articles furnished to the Purchaser under this contract shall be of the highest grade free of all defects and faults and of the best materials, quality, manufacture and workmanship throughout and consistent with the established and generally accepted standards for materials of the type ordered and in full conformity with the contract specification, drawing or sample, if any and shall, if operable, operate properly.
- 8.28.5 The Contractor also guarantees that the said goods/stores/articles would continue to conform to the description and quality as aforesaid, for a period as mentioned in **BID data sheet** after their delivery or after a period as mentioned in BID data sheet from the date of placement in service whichever shall be sooner, and this warranty shall survive notwithstanding the fact that the goods/stores/articles may have been inspected, accepted and payment thereof made by the Purchaser.
- 8.28.6 If during the aforesaid period, the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have

deteriorated, otherwise that by fair wear and tear the decision of the Purchaser in that behalf being final and conclusive that the Purchaser will be entitled to reject the said goods/stores/articles or such portions thereof as may be discovered not to conform to the said description and quality. On such rejection, the goods/stores/articles will be at the Seller's risk. If the Contractor/Seller so desires, the rejected goods may be taken over by him or his agents for disposal such manner as he may deem fit within a period of 3 months from the date of such rejection. At the expiry of the period, no claim whatsoever shall lie against the **Purchaser** in respect of the said goods/stores/articles, which may be disposed of by the Purchaser in such manner as he thinks fit. Without prejudice to the generality of the foregoing, all the provisions in the Standard Conditions of Contract relating to the 'rejection of stores' and 'failure' and 'termination' and Clause 8.27.0- 2 above shall apply.

8.28.7 The Contractor/Seller shall, if required, replace the goods or such portion thereof as have been rejected by the Purchaser, free of cost, at the ultimate destination, or at the option of the Purchaser, the Contractor/Seller shall pay to the Purchaser, the value thereof at the contract price and such other expenditure and damage as may arise by reason of the breach of the conditions hereinbefore specified. Nothing herein contained shall prejudice any other right of the Purchaser in that behalf under this contract or otherwise.

8.29.0. Inspection at the Fag end of the Delivery Period-

In cases where only a portion of the stores ordered is tendered for inspection at the Fag end of the delivery period and also in cases where inspection is not completed in respect of the portion of the stores tendered for inspection during the delivery period, the Purchaser reserves the right to cancel the balance quantity not tendered for inspection within the delivery period fixed in the contractor the risk and expense of the Contractor without any further reference to him. If the stores tendered for inspection during or at the fag end of the delivery period are not found acceptable after carrying out the inspection, the purchaser is entitled to cancel the contract in respect of the same at the risk and expense of the contractor. If, however, the stores tendered for inspection are found acceptable, the Purchaser may grant an extension of the delivery period subject to the following conditions:

- (a) The Purchaser has the right to recover from the contractor under the provision of clause 8.6.2 (a) of Standard Conditions of Contract liquidated damages on the stores which the Contractor has failed to deliver within the period fixed for delivery.
- (b) That no increase in price on account of any statutory increase in or fresh imposition of Customs Duty, Excise Duty, Sales Tax on account of Foreign Exchange variation or on account of any other tax or duty leviable in respect of stores specified in the contract which takes place

after the date of the delivery period stipulated in the contract shall be admissible on such of the said stores as are delivered after the date of the delivery stipulated in the contract.

- (c) That notwithstanding any stipulation in the contract for increase in price on any other ground no such increase which takes place after the date of the delivery stipulated in the contract shall be admissible on such of the said stores as are delivered after the expiry of the delivery period stipulated in the contract.
- (d) But nevertheless, the Purchaser shall be entitled to the benefit fit of any decrease in price on account of reduction in or remission of Custom Duty, Sales Tax or on account of Foreign Exchange variation or on account of any other Tax or Duty or on other ground as stipulated in the price variation, clause which takes place after the expiry of the date of delivery period stipulated in the contract.

8.29.1. The Contractor shall not dispatch the Stores till such time as an extension in terms of para 8.29.0 (a) to (d) above is granted by the Purchaser and accepted by the Contractor. If the stores are dispatched by the Contractor before an extension letter as aforesaid is issued by the Purchaser and the same are accepted by the Consignee, the acceptance of the stores shall be deemed to be subject to the conditions (a) to (d) mentioned in the paragraph 8.29.0 above.

8.29.2. In case where the some or the entire quantity has not been tendered for inspection with in the delivery period stipulated in the contract and the Purchaser chooses to grant an extension of the delivery period the same would be subject to conditions (a) to (d) mentioned in the paragraph 8.29.0 above.

8.30.0. Additional Conditions:-

These (special) conditions wherever they differ from the Invitation to Tender and Instruction to Tenderers over ride the latter.

In addition to those conditions, the following special conditions shall govern the Rate/Running contract and all supply orders placed under it:-

Additional (Special Conditions):

1. **Purpose of Contract:** The contract, which shall be deemed to be a Rate /Running contract is intended for the supply of the Stores of the descriptions set forth in the Scheduled to Tender during the period therein specified.
2. **Period of Contract:** Unless otherwise indicated in the schedule, the period of contract shall be one year from the date of acceptance of offer.

3. The Purchaser may authorize any officer (who shall hereinafter be called Direct Demanding Officer) at any time during the period of the contract, to place orders, called supply orders direct on the Contractor. The Contractor shall deliver or dispatch the full quantity of the stores so ordered by the Purchaser or the Direct Demanding Officer within the period specified in the contract or as mutually agreed to.
4. **Number or quantity contracted for** – subject as hereinafter mentioned, no guarantee can be given as to the number or quantity of the stores which will be ordered during the period of the rate contract which is only in the nature of a standing offer from the Contractor. But the purchaser undertakes to order from the contractor all stores as detailed in the contract which he requires to purchase during the period of the contract except that he reserves the right (1) of submitting to competition any supply of Stores included in the contract, (2) of placing rate contracts simultaneously or at any time during its period with one or more contractors as he may think fit, and (3) of obtaining from any source any stores referred to in the contract to meet any emergency if the Purchaser (whose decision shall be final) is satisfied that the contractor is not in a position to supply specific quantities within the period in which supplies are required.
5. **Minimum/maximum order value** - The value of any single supply order shall not be less than one unit and not more than the estimated quantity subject to provision of the contract.
6. **Delay or default** in supplies either in part or in full entitles the Purchaser, in addition to other remedies, not to order any further quantities on the contractor even up to any quantities indicated in the contract.
7. **Fall Clause:**
 - I. The price charged for the stores under the contract by the Contractor shall in no event exceed the lowest price at which the contractor sells the Stores or offers to sell stores of identical description to any person / organizations including the purchaser or any Department of the Central Government or any Department of a State Government or any statutory undertaking of the Central or State Government, as the case may be during the period till the performance of all Supply orders placed during the currency of the Advance Purchase Order/rate contract is completed.
 - II. If at any time, during the said period, the contractor reduces the sales price, sells or offers to sell such Stores to any person / organization including the purchaser or any Department of central Government or any Department of the State Government or any statutory undertaking of the Central or State Government as the case may be, at a price lower than the price chargeable under the contract, he shall forthwith notify such reduction in sales price to the Purchaser and the price payable under the contract for the Stores

supplied after the date of coming into force of such reduction shall stand correspondingly reduced, the above stipulation will, however, not apply to:

- (a) Export/Deemed Exports by the contractor,
 - (b) Sale of goods such as drugs which have expiry dates, and
- III. The contractor shall furnish the following Certificate to the bill paying officer along with each bill for payment of supplies made against the contract:

"I/We certify that there has been no reduction in sale price of the Stores of description identical to the stores supplied under the contract herein and such stores have not been offered & sold by me/us to any person/organization including the purchase or any Department of Central Government or any Department of State Government or any statutory Undertaking of the Central or State Government as the case may be, up to the date of bill/ the date of completion of supplies against all supply orders placed during the currency of the contract at a price lower than the price charged to the purchaser under the contract except for quantity of Stores categorized under sub-clauses (a), (b), of sub-para II above, details of which are as follows: ".

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Chapter 9

Performa for Performance Bank Guarantee

PERFORMANCE BANK GUARANTEE BOND

(On Stamp Paper of Rs one hundred)

(To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited, : Sector-44, Plot No.143, Gurgaon-122003.

1. (Herein after called RailTel) having agreed to exempt (Hereinafter called " the said Contractor(s)") from the demand, under the terms and conditions of an Agreement No. dated made between and for (hereinafter called " the said Agreement") of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, or production of a Bank Guarantee for Rs. (Rs. only). We, (indicate the name of the Bank) hereinafter referred to as " the Bank") at the request of Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs. Against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We, Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank

3. shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.

4. We, bank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

We, Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the (1) We shall be discharged from all liability under this Guarantee thereafter.

We, (indicate the name of Bank) Further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor(s) or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s) Supplier(s).

(indicate the name of Bank) lastly undertaken not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated the day of 2016

for

(indicate the name of the Bank)

Witness

1. Signature

 Name

2. Signature

 Name

Chapter 9-A

PROFORMA FOR SIGNING THE INTEGRITY PACT

RailTel Corporation of India Limited, hereinafter referred to as “The Principal”.

And

....., hereinafter referred to as “The Bidder/ Contractor”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b. The Principal will during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2- Commitments of the Bidder(s) / Contractor(s)

1. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a. The Bidder(s)/contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage during tender process or during the execution of the contract.
 - b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) /Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name & address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name & address of the foreign principals, if any.
 - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process.

Section 4: Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to be terminated the contract according to Section 3, the Principal shall be entitled

to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5: Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
2. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure.

Section 6: Equal treatment of all Bidders / Contractors/Subcontractors.

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7: Criminal charges against violation by Bidder(s) / Contractor(s) / Sub contractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8: Independent External Monitor / Monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, RailTel.
3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/Subcontractor(s) with confidentiality.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the CMD, RailTel within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
7. Monitor shall be entitled to compensation on the same terms as being extended to provided to Independent Directors on the RailTel Board.
8. If the Monitor has reported to the CMD, RailTel, a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD, RailTel has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
9. The word 'Monitor' would include both singular and plural.

Section 9: Pact Duration

This pact begins when both parties have legally signed it. **It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.**

If any claim is made / lodged by either party during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by CMD of RailTel.

Section 10: Other Provisions

1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing.
3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

3. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)
(Office Seal)

Place _____

Date _____

Witness 1:
(Name & Address)

Witness 2:
(Name & Address)

(For & On behalf of Bidder/Contractor)
(Office Seal)

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Chapter 10

Check List

SN	Have you submitted the following documents?	Submitted /complied or Not	PageNo/refno.of Offer
1	Cost of tender document		
2	Power of Attorney		
3	Downloaded tender document digitally signed.		
4	Earnest money amounting Rs -----/- as per bid data sheet- clause no. 6.4 Chapter 6.		
5	Valid TAC/TSEC Approval Certificate as per Specification number for the material as per bid data sheet.		
6	Integrity Pact Proforma (2 copies) Chapter 9A		
7	Performance statement including Copies of Purchase Orders & Inspection certificates as per clause 6.10 (i) Chapter 6.		
8	Compliance statement for acceptance of Technical specification (Chapter 4) & Instructions and Tender Conditions (Chapter 3,6,7,8).		
9	Deviation Statement, if any,(Chapter wise and Clause wise) from Technical Specification & Tender conditions.		
10	Cost breakup of price indicating Basic rate, Excise duty, Sales Tax/ CST/VAT, Transportation, Insurance etc. Chapter 2.		

Note: Non submission/ non-compliance of above documents as deliberated in Check List will make the offer liable to be summarily rejected.

*****END OF THE DOCUMENT *****

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