

**RAILTEL CORPORATION OF INDIA LIMITED
(A Govt. of India Undertaking)
(Under Ministry of Railways)**

**TENDER DOCUMENT
FOR**

Design, Supply, Installation, Testing, Commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi

Tender No.RailTel/Tender/OT/NR/O&M/Fire suppression system/17-18/49

**Tender Copy No. Sold
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TENDER NOTICE

No. RailTel/Tender/OT/NR/O&M/Fire suppression system/17-18/49

Date : 20-03-2018

Executive Director, RailTel Corporation of India Limited, Northern Region 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053, invites sealed open tenders in 'Single Packet' system from established and reliable contractors with proven experience for the following work :

Design, Supply, Installation, testing, commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi

Approximate Cost of work: Rs. 4207303.70/-

EMD value : Rs. 84200/-

a)	Sale of Tender Document	From 27-03-2018
b)	Closing of sale of Tender Document	up to 12.00 Hrs. 02-05-2018
c)	Submission of tender documents.	up to 15.00 Hrs 03-05-2018
d)	Opening of tender documents.	at 15.30 Hrs. 03-05-2018
e)	Validity of offer	120 days from the date of opening of tender.
f)	Completion period	45 days from the date of issue of LOA of tender.
g)	Address for availability of tender Document	Executive Director, RailTel Corporation of India Ltd., 6 th floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053
h)	Web address for availability of tender Document	www.railtelindia.com
i)	Cost of Tender document by hand	Rs.5900 /-(Including GST) for each tender.
j)	Cost of Tender document if required by Post	Rs.6490 /- (Including GST) for each tender.
k)	If the tender document is downloaded from the website then the cost of tender document as stated above (i) have to be submitted along with the offer in the form of Bank Draft in favour of RailTel Corporation of India Ltd., payable at Delhi.	
l)	The rates are all inclusive of taxes but the tenderer has to submit the breakup of all taxes as per Form no. 16 annexed with the Tender Document. The tenderer has also to indicate their PAN No. and GST registration together with complete address of tenderer.	

The offers shall be opened on above said date in the presence of those bidders who choose to be present. In case the date of opening happens to be a holiday, the tender will be received and opened at the same time on the next working day.

Fulfillment of eligibility criteria as mentioned in the tender document is a pre-requisite for consideration of the offer of the tenderers.

Further information including corrigendum to the Tender notice is available at RailTel's website www.railtelindia.com or from the office of Executive Director- RailTel /Delhi.

The Bid have to be sent at the following address – Office of Executive Director, RailTel Corporation of India Limited, 6th floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053. The bids will be opened at the above said address

**Deputy General Manager/NOC,
For RailTel Corporation of India,
Delhi.**

CHAPTER – 1

PREAMBLE

Preamble

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Preamble

Tender No. RailTel/Tender/OT/NR/O&M/Fire suppression system/17-18/49

1.0 Name of work: Design, Supply, Installation, testing, commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi.

1.1 Scope of work:

- 1.1.1 The scope of work included in this tender shall include (but not limited to) Design, Supply, inspection, delivery at site, installation, testing & successful commissioning and handing over the Fire detection & automatic suppression system to RailTel for its server room, OFC room & Store room as per Technical specifications and also Railtel's General Specifications
- 1.1.2 Providing and fixing at site all equipments associated with Fire detection & automatic suppression system listed under the technical specifications
- 1.1.3 To execute all incidental work at site including materials supply at site associated with Fire detection & automatic suppression system indicated in the Technical specifications. Nature of such works will be supply, installation, testing & commissioning of Fire detection & automatic suppression system's fixing, piping, associated electrical & civil engineering work, power / control cables, control panel etc.
- 1.1.4 Any other item not mentioned in this specification, BOQ, description of item/system but required to complete that item/system will be in the scope of work of contractor without any extra cost.
- 1.1.5 Performance testing at site of complete Fire detection & automatic suppression system as per various technical requirements as stipulated in performance testing clause.
- 1.1.6 Power supply of 230 volts, 50Hz AC shall be provided at one point in main power panel for testing & commissioning of complete Fire detection & automatic suppression system after erection is completed. Further distribution including cabling, earthing cable trays etc. shall be Contractor's scope. However, the contractor shall make his own arrangement for power required during construction, fabrication etc. Detailed Scope of Work is given under Chapter V.
- 1.1.7 **Scope of AMC**

Comprehensive Annual Maintenance Contract for a specified period after successful completion of warranty, which includes attending monthly maintenance along with 4 preventive maintenance in a Year (i.e. Once in 3 months total system check up, servicing, rectification of faults of any), unlimited breakdown calls including supply of spares and replacement of spares of the complete system as and when fails. The tenderer should submit their strategy for providing maintenance support during maintenance, warranty and post warranty period.

Training to RailTel's staff.

The contractor shall at every stage of installation; testing and commissioning provide all facilities for adequate training of RailTel personnel who may be deputed to work on the project. The supplier must train nominated Railtel officials of M/s RailTel at its office/factory premises in India regarding maintenance and operation activities of the NOVEC 1230 system. Training manual in CD and hard copies must be supplied during training. The training must cover the software and hardware aspects of the system. Travel, Boarding and lodging charges for the training will be borne by M/s RailTel.

1.2 Tender Bid

The tender bid shall be submitted in **sealed covers** at following address :-

Executive Director, RailTel Corporation of India Limited, 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053.

It is solicited that the written queries/clarifications may be sent to the RailTel's office latest by **03-05-2018** through e-mail to himanshu@railtelindia.com with copy to klkataria@railtelindia.com (in word format) & hard copy by post. All relevant clarifications sought will be addressed during the pre-bid meeting.

1.3 Qualifying Criteria.

For qualifying in Tender bid the tenderer shall be required to meet the eligibility requirements as given in Para 3.16 of tender document. Fulfillment of eligibility criteria as mentioned in the tender document is pre-requisite for the consideration of the offer of the tenderers.

1.4 Last date of Submission

The tender shall be received up to **15.00 hrs on 03-05-2018** at the office of Executive Director, RailTel Corporation of India Limited, 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053.
Phone: 91 (11) , Fax 91 (11) .

1.5 Date of Opening of Tender

The tenders will be opened at **15.30 hrs on 03-05-2018** at the same address as mentioned in Para 1.4.

1.6 RailTel reserves the right:-

- a) To verify, if so desired, the correctness of documentary evidence furnished by the tenderer.
- b) To verify the successful operation and performance of the qualifying projects. Tenderer shall arrange permission for the same.
- c) To carry out capability assessment of the tenderer(s) including referral to in-house information.
- d) RailTel shall not be responsible for any delay in the receipt of tenders. RailTel reserves the right to accept or reject any or all tenders.
- e) To verify the contractual payments received as per the certificates attached with the tender for fulfilling eligibility criteria from the issuing authority.

1.7 Work Load

The tenderer may submit the present work load of the similar contracts in hand as per the format (Form no.9).

1.8 Validity of Offer

The tenderer shall keep the offer open for **120 (One Hundred Twenty) days**, from the date of opening of tender. Within that period the tenderer, can not withdraw his offer. This period can be extended further, if required, by mutual agreement from time to time. Any contravention of the above condition will make the tenderer liable for forfeiture of his Earnest Money.

1.9 Completion Period of Work:

The work is to be executed and completed within **45 days** from the date of issue of “Letter of Acceptance” of the tender.

1.10 The List of Address to which correspondence and documents relating to the Contract should be sent:

As mentioned in para 1.4.

1.11 Earnest Money

Earnest Money shall be deposited as described in para 3.6. The tenderer shall required to deposit Earnest Money of **Rs. 84200/-** with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender.

Micro and Small Scale industrial units registered with National small industries Corporation Ltd. (NSIC) under its single point Registration scheme in respect of domestically funded packages shall be exempted from paying Earnest Money Deposit against the tender to the extent of monetary ceiling specified as per the Enlistment/Competency certificate issued by NSIC.

The bidders seeking exemption from submission of EMD should submit the copy of NSIC certificate to this effect in a separate sealed cover along with the envelope of bid duly scribed the details of bid.

However, the successful bidder shall be required to submit the EMD as a part of the security deposit as described in para 1.12.

1.12 Security Deposit

Security deposit shall be 5% of the contract value as detailed out in Para 4.16 of tender document.

1.13 Performance Bank Guarantee

Performance Bank Guarantee shall be 5% of the contract value for successful completion of the work as detailed in para 4.16 of tender document.

In case of CAMC, the tenderer is also required to submit PBG of 10% of the total value of sub-head – III, the Comprehensive Annual Maintenance Charges, towards fulfilment of obligation for the maintenance support as detailed in para 4.16 of tender document.

1.14 Specifications

Reference of specifications of the important software, equipments and materials required for execution of the contract is given in the Technical Specification in Chapter-7 of tender document. The work shall be executed in compliance with all the technical requirements given therein. In case of any mismatch or confusion, the decision of EIC shall be final.

1.15 Schedule of Requirement

The various items to be supplied and execution of the work by the tenderer are indicated in Schedule Of Requirement as in chapter-2 of tender document. The make and model of all the equipments, software proposed to be supplied must be furnished by the tenderer/s with their offer.

1.16 Work to be done by RailTel

After system installation is completed, Power supply of 230 volts, 50Hz AC shall be provided at one point in main power panel for testing & commissioning of complete Fire detection & automatic suppression system. Further, distribution including supply and installation of associated items, cabling, extending existing earth for earthing etc. shall be in contractor's scope.

1.17 Materials to be supplied by RailTel

Nil.

1.18 Materials to be supplied by Contractor

Tenderer's special attention is invited to the fact that no material is required to be arranged/supplied by RailTel for commissioning the systems. All materials including the materials covered under the Schedule of Requirement and those required to achieve the end objective including electrical materials, cables, connectors/adaptors etc. and any special protection materials needed for power supply etc. as required are to be supplied by the contractor.

The contractor shall arrange at his own cost all test instrumentation, staff, fuel, POL, suppression gas, and other consumables during testing & Commissioning, trial run and running in period upto the date of acceptance. Nothing extra shall be paid on this account.

1.19 Submission

The tenderer shall submit all the required information in the relevant forms attached to this document along with all required credential documents and suitably numbering each page of the bid documents with a content list indicating availability of various documents with their serial numbers. In the absence of numbering of pages and the content list, there is a likelihood of any important document going unnoticed for which the tenderer shall be solely responsible.

1.20 Warranty Support

All items supplied & works executed should be covered under warranty as per Para 5.15 and 5.29 of tender document.

CHAPTER-2

SCHEDULE OF REQUIREMENTS

Estimate for Design, Supply, Installation, Testing and Commissioning and CAMC of NOVEC 1230 Gaseous Fire Suppression System along with Addressable Intelligent Automatic Fire Detection and Alarm System for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi-110002.

SUB HEAD - I (FIRE SUPPRESSION SYSTEM)

SN	DESCRIPTION	UNITS	QTY	Unit Rate	AMOUNT IN INR	GST RATE	GST Amount	Total Amount in INR
1	Design, Supply, Installation, Testing and Commissioning of Novec 1230 gas based, 42 bar working pressure Fire Suppression System, designed for highest degree of Suppression System, designed for highest degree of protection & minimum extinguishing time for the enclosed area at uniform extinguishing concentration comprising of following components and related accessories, connection etc. as per specifications in Chapter-7 and approved makes (Annex-I) as required							
a.	80 Ltrs. capacity CCOE (PESO) approved seamless cylinder complete with Valve, Siphon tube assemble at working pressure of 42 bar with Pressure gauge, safety burst disc etc.	No.	5	111700	558500	18%	100530	659030
b.	Novec 1230 gas in cylinders and system up to the required high pressure suitable for 25/42 bar working pressure.	Kg.	280	2332.615	653132.2	18%	117563.8	770696
c.	Electrical Solenoid Actuator (Electric control head) 24 vdc to operate the system receiving signal from fire alarm panel	No.	3	19793.2	59379.6	18%	10688.328	70067.928
d.	Manual Actuator to Operate system manually in case of power failure	No.	3	5570.43	16711.29	18%	3008.0322	19719.322
e.	Pneumatic Actuator (Pressure Operated control head) mounted on the top of the cylinder to actuate the slave cylinder complete with adaptor	No.	2	9232.06	18464.12	18%	3323.5416	21787.662
f.	Non return Valve of suitable make and quality	No.	5	14788.08	73940.4	18%	13309.272	87249.672
g.	High Pressure Discharge Flexible Hose metal jacketed connected to the cylinder valve etc. with fittings	No.	5	14026	70130	18%	12623.4	82753.4
h.	Pneumatic Actuation Hose with fittings etc. as required to be connected from actuator to adopter	No.	2	6737.755	13475.51	18%	2425.5918	15901.102

i.	Cylinder mounting Bracket / Strap complete with clamps, bolts & fasteners etc. of suitable make and quality.	No.	10	2312.45	23124.5	18%	4162.41	27286.91
j.	Discharge Nozzle (As per flow calculations).	No.	9	4453.5	40081.5	28%	11222.82	51304.32
k.	Discharge Pressure switch of suitable make and quality.	No.	3	11401	34203	28%	9576.84	43779.84
l.	2 way Cylinder Manifold for cylinders fabricated with ASTM A 106 GR. B SCH – 40 Pipe complete as required.	No.	2	6698.5	13397	18%	2411.46	15808.46
2	M.S. Seamless Pipes conforming to ASTM A 106 GR.B SCH 40 with necessary fittings conforming to ASTM A 105, SCH 40 complete as required	Lot.	3	42266.5	126799.5	18%	22823.91	149623.41
3	Warning Sign boards complete as required	Nos.	3	1363	4089	28%	1144.92	5233.92
TOTAL OF SUB HEAD – I								2020241.9
SUB HEAD - II (FIRE ALARM SYSTEM)								
SN	DESCRIPTION	UNITS	QTY.					
1	Design, Supply, Installation, Testing and Commissioning of intelligent analogue addressable Single loop fire control alarm panel with complete system with battery charger and standby SMF battery etc. and all features as per specifications in Chapter-7 and approved makes (Annex-I) as required.	Set	1	82296	82296	28%	23042.88	105338.88
2	Design, Supply, Installation, Testing and Commissioning of intelligent addressable Multisensor and (Multi with base as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	16	2658.5	42536	28%	11910.08	54446.08
3	Design, Supply, Installation, Testing and Commissioning of Addressable photoelectric smoke detector with base as per specifications in Chapter-7 and approved makes (Annex-I) as required	No.	8	2335.5	18684	28%	5231.52	23915.52
4	Design, Supply, Installation, Testing and Commissioning of Addressable Manual call point as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	5	2484.5	12422.5	28%	3478.3	15900.8
5	Design, Supply, Installation, Testing and Commissioning of Addressable loop sounder compatible with single loop Addressable fire alarm panel complete as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	5	3009.5	15047.5	28%	4213.3	19260.8

6	Design, Supply, Installation, Testing and Commissioning of Manual release switch complete as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	3	2013	6039	28%	1690.92	7729.92
7	Design, Supply, Installation, Testing and Commissioning of Manual abort switch complete as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	3	2013	6039	28%	1690.92	7729.92
8	Design, Supply, Installation, Testing and Commissioning of Repeater Panel as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	1	41128	41128	28%	11515.84	52643.84
9	Providing Photo Illuminescent Signage's 12"x6" as required.	No.	5	1772	8860	28%	2480.8	11340.8
10	Supplying and laying of 2 C x 1.5 sq. mm size PVC sheathed, PVC armoured Copper conductor FRLS cable on surface/recess complete as per specifications in Chapter-7 and approved makes (Annex-I) as required.	Mtr.	2,500	110.5	276250	28%	77350	353600
11	Supply & Fixing of portable type clean agent cylinder capacity 2 kg. as per required standards.	No.	5	10174	50870	28%	14243.6	65113.6
12	Response Indicator of a suitable make and quality	No.	10	121.47	1214.7	28%	340.116	1554.816
13	Addressable Monitor Module as per specifications in Chapter-7 and approved makes (Annex-I) as required.	No.	15	2660	39900	28%	11172	51072
14	Addressable Control module as per specifications in Chapter-7 and approved makes (Annex-I) as required.	Nos.	8	3219	25752	28%	7210.56	32962.56
15	Timer Module as per specifications in Chapter-7 and approved makes (Annex-I) as required.	Nos.	3	13233.5	39700.5	28%	11116.14	50816.64
16	Supply, installation, testing and commissioning of GSM based Auto Dialer for making calls to important personnel's in case of emergency as per specification in Chapter-7.	Nos.	1	10232.5	10232.5	28%	2865.1	13097.6
17	Conduit of a suitable make and quality.	Mtr.	200	66.5	13300	18%	2394	15694
Total Value OF SUB HEAD – II								882217.78
Total Value OF SUB HEAD-I + SUB HEAD – II								2902459.7
SUB HEAD - III (COMPREHENSIVE AMC FOR ABOVE FIRE DETECTION & SUPPRESSION SYSTEM)								
SN	DESCRIPTION	UNITS	QTY.	Unit Rate (Average of rates provided by M/s Prudent and M/s Firehut)	AMOUNT IN INR	GST RATE	GST Amount	Total Amount in INR

1	CAMC of the complete system i.e. NOVEC 1230 gaseous fire suppression system & addressable intelligent automatic fire detection for 1st Year after warranty.	Year	1	328000	328000	18%	59040	387040
2	CAMC of the complete system i.e. NOVEC 1230 gaseous fire suppression system & addressable intelligent automatic fire detection for 2nd Year after warranty.	Year	1	368000	368000	18%	66240	434240
3	CAMC of the complete system i.e. NOVEC 1230 gaseous fire suppression system & addressable intelligent automatic fire detection for 3rd Year after warranty.	Year	1	409800	409800	18%	73764	483564
Total Value OF SUB HEAD – III								1304844
Total Cost of Tender (SUBHEAD - I, II, III)								4207303.7

i.	I/we undertake to execute the work of schedule of work at -----% (in words-----percent) Above/Below/At Par of the RailTel's total estimated cost of schedule mentioned above.
ii.	It is certified that I/we have inspected the site of work and acquainted myself or ourselves with local conditions.
iii.	I/we have carefully gone through the specifications., tender conditions etc. mentioned in the tender document.
iv.	I/we undertake to keep this offer valid for the period indicated in Tender from the date of opening of Tender and further not to revoke the same before expiry of such period.
v.	Bids without CAMC rates will be invalid
vi.	Evaluation of bid shall be done on the basis of total cost of the work i.e. Sub- Head-I + Sub-Head-II + Sub-Head III.

Signature and seal of the Tenderer

Note for Guidance :	
1	Tender should quote his single and common percentage rate in row i) above only as i.e Above /Below /At Par of the RailTel's estimated cost of Schedule of Work.
2	The single Percentage rate to be quoted both in words and figures.
3	Tenderer shall quote all inclusive rates, but there should be break up of basic price and all type of applicable taxes.
4	If none of the Above / Below / At Par is ticked by tenderer, the quoted single percent will be treated below the RailTel' estimated cost of Schedule of work.

CHAPTER-3

INSTRUCTIONS TO TENDERERS

AND

CONDITIONS OF TENDERING

CHAPTER - 3

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

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CHAPTER-3

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

3.1 GENERAL INSTRUCTIONS

3.1.1 Tender is invited by RailTel, Northern Region, New Delhi, from established and reliable contractors for the work detailed in chapter 1.

3.1.2 The Special Conditions of Contract, Instructions to Tenderers and Conditions of Tendering, Technical Specifications & Supplement, Preamble including Schedule of Requirements and all Annexure & Forms etc. shall, hereafter, be collectively referred to as the **"Tender documents"**. These regulations for Tender and Contracts shall be read in conjunction with the General Conditions of contract and shall be subject to modifications, additions or suppression, overwrite by Special conditions of contract and/or special specifications, if any, annexed to the tender document.

3.2 **INTERPRETATIONS** : The following terms wherever occurring in the tender document and wherever used throughout the execution of the work, shall, unless excluded by or repugnant to the context, have the meaning attributed thereto as follows:

- a) **"CONTRACT"** Means the Contract resulting from the acceptance by the Purchaser of this Tender whether in whole or in part.
- b) **"CONTRACTOR"** Means the successful Tenderer, i.e., the Tenderer whose Tender has been accepted either in whole or in part.
- c) **"CONTRACTOR's REPRESENTATIVE"** Shall mean a person in supervisory capacity who shall be so declared by the Contractor and who shall be authorized under a duly executed power of attorney to receive materials issued by the Purchaser to the Contractor for the works. He shall be responsible for proper execution of works at each or all places and shall take orders from Purchaser's Engineers and carry out the same.
- d) **"ENGINEER / ENGINEER-IN-CHARGE (EIC)"** 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 field works covered by the contract are carried out in accordance with approved designs, drawings & specifications and conditions of contract as agreed to.
- e) **"ENGINEER'S REPRESENTATIVE"** Shall mean the supervisor of RailTel in direct charge of the works.
- f) **"EQUIPMENT"** Means all or any equipment considered necessary by the Purchaser's Engineers for satisfactory operation, as a whole, of the installations.
- g) **"MONTH"** Means any consecutive period of thirty days.

- h) **"MATERIALS"** Means all equipments, components, fittings and other materials including raw materials required to complete the work.
- i) **"PURCHASER"** Means RailTel Corporation of India Limited, 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053
- j) **"PURCHASER'S ENGINEER"** Means the Executive Director of RailTel or successor who will decide all matters relating to design, manufacture, and installation and commissioning of the plant and equipment at site.
- k) **"SUB-CONTRACTOR"** Means an individual or a firm of Contractor or a Company registered under Indian Company Act or an approved supplier of materials to whom the Contractor sublets portions of the contract.
- l) **"CONSIGNEE"** Means the person specified in the Acceptance of Tender to whom Stores are to be delivered at the destination.
- m) **"INSPECTING OFFICER"** Means the person, or organization specified in the contract for the purpose of inspection of stores of work under the contract and includes his/their authorized representative.
- n) **"RailTel"** Means RailTel Corporation of India Limited, Northern Region, 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053
- o) **"SITE"** Means the areas to be taken up by the permanent works, together with any other area or areas as shall be determined by the Purchaser's Engineer, which may be placed at the disposal of the Contractor for the purpose of the contract and also such area or areas used for store yards, works yards or workshop in proximity of the works as the Purchaser's Engineer may have authorized as an extension of the site, irrespective of the terms and conditions under which they are occupied by the Contractor.
- p) **"TENDERER"** 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.
- q) **"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 and Annexure hereto 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.
- r) **"CAMC"** Comprehensive Annual Maintenance Contract (covering gas leakage of the system due to design, system component fault / malfunction) for the installed system. However, it will not cover refilling of gas due to any fire incident / accidental release

by the buyer.

s) "Near Relative":

The near relatives of all RailTel Employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of RailTel. The detailed guidelines in this regard are given in the following paragraphs : -

- i) The near relatives for this purpose are defined as:
 - * Members of a Hindu Undivided family,
 - * They are husband and wife,
 - * The one is related to the other in the manner as father, mother, son (s) & son's wife (daughter-in-law), Daughter(s), & daughter's husband (son-in-law), brother(s) & brother's wife, sister(s) & sister's husband (brother-in-law).
- ii) As per Government of India's CCS Conduct rule 4, no Government servant shall in the discharge of his official duties deal with any matter or sanction any contract to any company or for any other person if any member of his family is employed in that company or firm or under that person or if he or any member of his family is interested in such matter or contract in any other manner and the Govt. Servant shall refer every such matter or contract to his official superior. This clause is applicable to all RailTel employees in view of this as soon as any RailTel employee becomes aware of the above aspect, he must intimate this to the prescribed authority.
- iii) The Company or firm or any other person is not permitted to tender for works in RailTel Unit in which his near relative(s) is (are) posted. The tender/work will be cancelled and earnest money/security deposit will be forfeited at any stage whenever it is so noticed. The department will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.

* The format of the certificate to be given is

"I

.....S/o.....r/o..... hereby
certify that none of my relative(s) as defined in the tender document is/ are employed in RailTel unit. In case at any stage, it is found that the information given by me is false/ incorrect, RailTel shall have the absolute right to take any action as deemed fit/without any prior intimation to me".

- t) **"WRITING"** Includes all matters written, typewritten or printed either in whole or in part.
- u) **"Constructional Plant"** shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or the temporary works (as hereinafter defined) but do not include materials or other things intended to form or forming part of the permanent work. (i)

“Temporary Works” shall mean all temporary works of every kind required for the execution, completion and/or maintenance of the works. (ii) “Period of maintenance” shall mean the specified period of the maintenance from the date of completion of the work as certified by the Engineer.

- v) Singular and Plural: Works importing the singular number shall also include the plural and vice versa where the context requires.
- w) Headings & marginal headings: The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

3.3 Cost of Tender Document

- 3.3.1 Cost of Tender document as per Tender Notice shall be submitted in the form of Pay Order/ Demand Draft from any Nationalised/ Scheduled bank in India in favour of **“RailTel Corporation of India Limited” payable at New Delhi.**
- 3.3.2 Micro and Small scale Industrial Units registered with National Small Industries Corporation Ltd.(NSIC) under its single point Registration Scheme in respect of domestically funded packages shall be exempted from paying Cost of Tender document against the tender to the extent of monetary ceiling specified as per the enlistment certificate/ Competency certificate issued by NSIC. The bidders seeking exemption from submission of Cost of Tender document should submit the copy of NSIC certificate to this effect in a separate sealed cover along with the envelope of bid duly super scribed the details of bid.

3.4 LOCAL CONDITIONS

- 3.3.1 It will be imperative on each tenderer to fully acquaint him with all the local conditions and factors which would have any effect on the performance of the contract and cost of the stores. The purchaser shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for the change of price or time schedule of delivery of stores shall be entertained after the offer is accepted on account of any local condition or factor.
- 3.3.2 The intending tenderer is advised to study the tender document carefully. Any submission of a quotation by the tenderer shall be deemed to have been done after a careful study and examination of these documents with full understanding of the implication thereof. These conditions and specifications shall be deemed to have been accepted unless otherwise, specifically commented upon by the Tenderer in his quotation. Failure to adhere to anyone or all these instructions may render his offer liable to be ignored without any reference.
- 3.3.3 Should a tenderer find discrepancies in, or omission from, the drawings or any of the Tender documents or he has any doubt to their meaning, he should at once notify the RailTel who may send a written clarification to all Tenderers.

3.5 COMPLIANCE TO TENDER CONDITIONS, SPECIFICATIONS & DRAWINGS

- 3.5.1 The tenderer shall indicate Paragraph by Paragraph for each section of the tender document that either his tender complies in every respect with the requirements of

each clause and sub clause or if not, precisely how they differ from the requirements of the tender. In later case, the tenderer shall enclose a separate statement as per proforma given, indicating only the deviations for any clause Or sub clause of Special Conditions of Contract, Instructions to Tenderers and Conditions of Tendering, Technical Specifications, Preamble etc. which he proposes with justifications for deviations proposed. The purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final (see Form 5).

3.5.2 The equipment offered and execution of work shall be in accordance with the drawings and specifications. Details of variation from the drawings and specifications, if any, should be clearly indicated separately for each annexure with justification for deviations proposed. The Purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final.

3.5.3 Firms should give details of similar works carried out giving details of the name of the project, date of award, value of the contract, the original execution period and the actual execution time taken.

3.5.4 The tenderer should serially number all the pages of the bid submitted.

3.6 EARNEST MONEY

3.6.1 The tenderer shall furnish an amount of **Rs. 84146/-** given in “Para-1.11 of tender document” as earnest money in favour of RailTel Corporation of India Limited payable at New Delhi.

3.6.2 **The Earnest Money should be in any of the following forms** Pay orders, Demand Drafts, Bankers Cheque. These forms of earnest money should be issued from any of the nationalized banks/ Schedule banks.

3.6.3 The tenderers shall hold the offer open till such date as specified in Para 1.8 of the tender document. It being understood that the tender documents have been sold/issued to the tenderer and the tenderer has been permitted to tender in consideration of the stipulation on his part that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to RailTel. If the tenderer fails to observe or comply with the foregoing stipulation, the aforesaid amount deposited as Earnest Money shall be liable to be forfeited by RailTel.

3.6.4 The Earnest Money may be forfeited

a) If tenderer withdraws its tender during the period of tender validity specified in Para 1.8 of tender document.

b) In the case of successful tenderer, If the tenderer fails to sign the contract in accordance with Para 5.2 of Special Conditions of Contract and to furnish Performance Bank Guarantee in accordance with Para 1.13 of tender document.

3.6.5 The Earnest money of unsuccessful tenderer will save as herein before provided, be returned within reasonable time to the unsuccessful tenderer but RailTel shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the above stipulation to keep offer open for the period specified in the tender documents or to the Earnest Money while in their possession nor be liable to pay interest thereon.

3.6.6 If the tender is accepted, the amount of Earnest Money will be held as security deposit for due and faithful fulfillment of contract.

3.6.7 The tender not accompanied by Earnest Money as mentioned in Para 3.6.1 of the tender document will be **summarily rejected**.

3.7 SUBMISSION OF OFFERS

- 3.7.1** All offers in the prescribed forms should be submitted before the time and date fixed for the receipt of the offers. Offers received after the stipulated time and date will be **summarily rejected**.
- 3.7.2** In case the date of opening happens to be a holiday, the tender will be received and opened at the same time on the next working day.
- 3.7.3** All offers shall be either type written or written neatly in indelible ink in English. A reference to total number of pages comprising the offer must be made at the top right hand corner of the top page. The supporting documents should be submitted either in original or duly signed by the authorized signatory of the tenderer. The original documents shall be produced for verification when called for.
- 3.7.4** All copies of the tender papers (including corrigendum, if any) shall be stamped and signed in ink by the tenderer, on each page including closing page in token of his having studied the tender papers carefully.
- 3.7.5 Quote in Figures and Words**
The tenderer is advised to quote percentage rate above/below/at Par of the RailTel's total estimated cost for schedules. If none of the above/below/At Par is ticked by the tenderer, the quoted percent rate will be treated '**below**' the RailTel's total estimated cost of schedules. In case of difference in words and figures, the amount written in words will be taken into consideration. In the event of any discrepancy between percentage rate and total cost (if mentioned), the value as per the quoted percentage rate will be taken for evaluation purpose. In case the schedule of requirement quoted by tenderer is incomplete with reference to tender document, the offer is liable to be rejected.
- 3.7.6 Attestation of alterations**
No scribbling is permissible in the tender documents. Tender containing erasures and alterations in the tender documents are liable to be rejected. Any correction made by the tenderer/ tenderers in his/their entries must be signed (not initialed) by him/them.
- 3.7.7 Tender Bid:** The tenderer shall submit his tender in single sealed cover with the tender number & its description and date of closing/ opening on envelope. The original tender paper purchased from this office shall be returned duly signed along with the original offer of the tenderer. The offer shall consist of the following:-
The original tender documents purchased from this office/ down loaded from web site shall be submitted with each page duly signed and stamped along with the original offer of the tenderer.
- i) Offer letter complete. (Form No.1) .
 - ii) Earnest Money in prescribed form (Para 3.6 of tender document).
 - iii) Audited balance sheet for last three financial years.
 - iv) Constitution of Firm and Power of Attorney (in case of partnership firm).
 - v) Clause wise compliance to tender conditions by signing of each page of tender document & statement of deviations (Form No.5).
 - vi) Similar works executed, Form No. 13 (Para 3.16.2 of tender document).
 - vii) User's Certificate, Form No. 2 (Para 3.16.1.2 of tender document).
 - viii) Any other information desired to be submitted by the tenderer.
 - ix) Goods & Service tax registration.
 - x) The present work load of the similar contracts in hand as per the format (Form 9). (Para 1.7 of tender document).

Note: The offer letter and duly filled quote on schedule of requirement (Chapter-2) (percentage above/below/at par) should be submitted. The rate quoted in the offer by the contractor shall be inclusive of all the relevant factors taken into consideration and these should be firm and without any variation clauses. The envelope shall be clearly superscribed the tender number and its description in bold letters & sealed.

3.8 CONSTITUTION OF FIRM AND POWER OF ATTORNEY

3.8.1 Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing:-

- (a) As sole proprietor of the concern or as attorney of the sole proprietor;
- (b) As a partner or partners of the firm;
- (c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the authority conferred by Memorandum of Association.

3.8.2 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.

3.8.3 The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.

3.8.4 In case where the Power of Attorney, partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by Advocate, authorized translators of Courts and Licensed Petition Writers should be supplied by the Contractor(s) while tendering for the work.

3.8.5 The duly notarized Power of Attorney, Partnership Deed, Memorandum of Joint Venture as the case may be in original or duly signed.

3.9 VALIDITY OF OFFER

The tenderer should keep the offers valid for the period as mentioned in Para 1.8 of tender document.

3.10 RATES DURING NEGOTIATION

The tenderer/s shall not increase his/their quoted rates in case the RailTel Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the tenderer/s.

3.11 PERIOD OF COMPLETION AND TIME PROGRESS GRAPH

The works/work are/is to be completed within a period as mentioned in Para 1.9 of the tender document from the date of issue of Letter of Acceptance of the tender.

3.12 OPENING OF TENDER:

The tender will be opened at the time & date of the tender given in the Para 1.5, in the presence of such Tenderers/Authorized Representatives who choose to be present.

3.13 NON-TRANSFERABILITY AND NON-REFUNDABILITY

The tender documents are not transferable. The cost of tender documents is not refundable.

3.14 ERRORS, OMISSIONS & DISCREPANCIES

The Contractor(s) shall not take any advantage of any misinterpretation of the conditions due to typing or any other error and if in doubt, shall bring it to the notice of the Engineer without delay. In case of any contradiction only the printed rules, and books should be followed and no claim for the misinterpretation shall be entertained.

3.15 WRONG INFORMATION BY TENDERER

If the tenderer/s deliberately gives/give wrong information in his/their tender which creates/create circumstances for the acceptance of his/their tender the RailTel reserves the right to reject such tender at any stage.

3.16 AMENDMENT OF BID DOCUMENTS:

- 3.16.1** At any time, prior to the date for submission of bids, the RAILTEL may, for any reason whether suo motto or in response to clarification requested by a prospective Bidder, modify the bid documents by amendments.
- 3.16.2** The amendments shall be posted on website of RailTel and all bidders should download from website. These amendments will be binding on all bidders. RailTel shall make efforts to inform in writing or Fax to all prospective bidders on the address intimated at the time of purchase of bid documents from the RailTel. Those who are downloading tender document from website should download the clarification also and submit with the tender document.
- 3.16.3** In order to afford prospective bidders reasonable time to take the amendments into account in preparing their bids, the RAILTEL may, at its discretion, extend the deadline for the submission/opening of bids suitably.

3.17 QUALIFYING CRITERIA

3.17.1 General

Qualifying criteria under this Para lays down minimum acceptable qualifications in various areas to ensure that qualified bidder has necessary experience, technical expertise, equipments and financial and human resources to successfully complete the project & CAMC.

- 3.17.1.1** The tenderer should submit the details of experience of similar works in the projects executed as per Form no. 13.
- 3.17.1.2** The tenderer/s must submit along with his/their tender, certificates from the original user for whom the project was undertaken, certifying the date of award of contract, date of completion, date of commissioning and the present working status of the system so established and contractual payments received till the date of submission of the tender. The tenderer shall submit these certificates for the projects that they/he has executed which only satisfy the minimum requirements in each case. The certificates are to be submitted in original or their true copies duly signed by the tenderer, preferably as per Form no. 2.
- 3.17.1.3** The tenderer shall also provide a letter that the OEM/Authorized distributor/Authorized Partner has NOVEC 1230 Flow calculation software suitable for seamless steel cylinder offered for the system, and that such software shall be type approved by FM/UL/LPCB/VdS/CCOE/EN.
- 3.17.1.4** The Bidder shall also provide documentary evidence for supply of NOVEC-1230 gas of OEM (3M) in the subject work.

3.17.2 Technical Capability and meaning of similar single work:

- 3.17.2.1** Tenderer must have executed successfully and satisfactorily works of similar nature as indicated in Para 3.16.2.2 below, of values as indicated below:

- i) Tenderer should have completed at the time of opening of the tender during the last three financial years i.e. current year & three previous financial years at least one similar single work for minimum value of 35% of advertised tender value (i.e. Rs. 1015860.9/- or higher) of Sub-head-I & II of SOR.

3.17.2.2 Definition of similar single work is as under-

Work similar to the scope of work as contained in this tender shall mean the work involving, "Supply, Installation and Commissioning of Fire detection & automatic suppression system based on clean agent in Govt./PSU/Telcos.

3.17.3 Financial:

- 3.17.3.1** Total contract amount received during the last 3 financial years and in the current financial year should be a minimum of 150% of advertised tender value i.e. Rs. 4353689.5/- or higher) of Sub head I & II of SOR.

3.17.3.2 Audited Balance Sheet and Income statement of just concluded year duly verified by Chartered Accountant etc.

3.17.3.3 Must furnish following references to include in Cheque

3.17.3.4 Name of Bank & Branch of Tenderer

3.17.3.5 Bank account number

3.17.3.6 The tenderer should have Registration No. for Goods & Service Tax in respective state where work is to be executed.

3.17.3.7 The tenderer shall furnish such documents for the above as to establish the financial soundness of his company as well as that of other companies if more than one company is involved in bidding for this tender. The latest balance sheet audited or certified by a neutral agency shall be furnished.

3.17.4 Engineering Organization

Deleted.

3.17.4.1 Construction and Maintenance Machinery

Deleted.

3.18 EVALUATION OF OFFER & AUTHORITY FOR ACCEPTANCE

3.18.1 The authority for the acceptance of the tender rests with the Purchaser.
The tenders received will be evaluated by the Purchaser to ascertain the best acceptable tender in the interest of the Purchaser.

3.18.2 However, the purchaser shall not be bound to accept the lowest or any tender. The purchaser reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper or to sub-divide the work among different Tenderers or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever.

3.19 AGREEMENT

The successful tenderer/s shall be required to execute an agreement with RailTel for carrying out the work as per the tender document.

3.20 TENDERER'S ADDRESS

Tenderer shall state in the tender his postal address with PIN, telephone No., Fax No., Email ID if any, fully and clearly. Any communication sent to the tenderers by post at his said address shall be deemed to have reached the tenderer duly & timely, notwithstanding the fact that the communication could not reach the tenderer at all or in time for whatever reason. Important documents shall be sent by Registered Post/Courier.

CHAPTER – 4

GENERAL CONDITIONS

OF

CONTRACT

CHAPTER - 4

GENERAL CONDITIONS OF CONTRACT

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Chapter - 4

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS AND INTERPRETATION

4.1. Definitions:

- 4.1.1 The meaning of terms/interpretations shall be taken as defined in Chapter- 3, (INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING).

4.2. General Obligations

- 4.2.1 Execution Co-relation and intent of contract documents : The contract documents shall be signed in triplicate by the RailTel and the Contractor. The contract documents are complementary, and what is called for by any one shall be as binding as if called of try all; the intention of the documents is to include all labour and materials, equipments and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the RailTel to the contractors unless distinctly specified in the contract documents. Materials or works described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standards.
- 4.2.2 If a work is transferred from the jurisdiction of one region of RailTel to another region or to a Project authority or vice versa while the contract is in subsistence, the contract shall be binding on the Contractor and the other region in the same manner & take effect in all respects as if the Contractor and the other region were parties thereto from the inception and the corresponding officer or the competent authority in the other region will exercise the same powers and enjoy the same authority as conferred to the Predecessor RailTel/Project under the original contract/agreement entered into.
- 4.2.3 If for administrative or other reasons the contract is transferred to the other region of RailTel the contract shall notwithstanding anything contained herein contrary thereto, be binding on the Contractor and the other region in the same manner and take effect in all respects as if the contractor and the other region had been parties thereto from the date of this contract.
- ##### 4.3. Law governing the contract
- 4.3.1 The Contract shall be governed by the law for the time being in force in the Republic of India.
- 4.3.2 Compliance to regulations and by-laws – The Contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute, regulations or by-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

- 4.4. Communications to be in writing** – All notices, communications, references and complaints made by the RailTel or the Engineer or the Engineer's representative or the Contractor interest concerning the works shall be in writing and no notice, communication, references or complaint not in writing shall be recognized.
- 4.5. Service of Notices on Contractors** – The Contractor shall furnish to the Executive Director/RailTel the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the contract if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by contractor to the Executive Director /RailTel.
- 4.6. Occupation and use of land** – No land belonging to or in the possession of the Railway/RailTel shall be occupied by the contractor without the permission of the RailTel. The Contractor shall not use, or allow to be used; the site for any purposes other than that of executing the works.
- 4.7. Assignment or subletting of contract:** - The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein in any manner whatsoever without the special permission in writing of the RailTel. Any breach of this condition shall entitle the RailTel to rescind the contract under Para 4.62 of these conditions and also render the contractor liable for payment to the RailTel in respect of any loss or damage arising or ensuring from such cancellation. Provided always that execution of the details of the work by petty contractor under the direct and personal supervision of the contractor or his agent shall not be deemed to be sub-letting under this clause. The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub-contractor and the RailTel and shall not relieve the Contractor of any responsibility under the Contract.
- 4.8. Assistance by the RailTel for the stores to be obtained by the Contractor -**
Owing to difficulty in obtaining certain materials (including Tools & Plants) in the market, the RailTel may have agreed without any liability therefore, to endeavor to obtain or assist the Contractor in obtaining the required quantities of such materials as may be specified in the Tender. In the event of delay or failure in obtaining the required quantities of the aforesaid materials, the Contractor shall not be deemed absolved of his own responsibility and shall keep in touch with the day-to-day position regarding their availability and accordingly adjust progress of works including employment of labour and the RailTel shall not in any way be liable for the supply of materials or for the non supply thereof for any reasons whatsoever not for any loss or damage arising in consequence of such delay or non supply.
- 4.9. Railway Passes** – No free Railway passes shall be issued by the RailTel to the Contractor or any of his employee/worker.
- 4.10. Carriage of materials** – No forwarding orders shall be issued by the RailTel for the conveyance of Contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight at public tariff rates therefore.
- 4.11. Force Majeure Clause** - If at any time, during the continuance of this Contract, the performance, in whole or part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil Commotion, Sabotage, Fires, Floods, Earth quakes, explosions, strikes, epidemics,

quarantine restrictions, lockouts, any statute, statutory rules/ regulations, order of requisitions issued by any Government Department or Competent Authority of acts of God (here-in-after referred to as event) then provided notice of the happening of any such event is given by either party to the other within twenty one days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate this Contract nor shall either party have any claim for damage against the other in respect of such non-performance or delay in performance, and the obligations under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, provided further that if the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event beyond a period as mutually agreed to by the RailTel and the Contractor after any event or 60 days in the absence of such an agreement whichever is more, either party may at its option terminate the Contract provided also that if the contract is so terminated under this clause the RailTel may at the time of such termination take over from the Contractor at prices as provided for in the contract, all works executed or works under execution.

- 4.12. Representation on Works** – The Contractor shall, when he is not personally present on the site of the works place, keep a responsible agent at the works during working hours who shall, on receiving reasonable notice, present himself to the Executive Director/RailTel and orders given by the Engineer or the Engineer's

Representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the RailTel to rescind the contract under Para 4.62 of these conditions.

- 4.13. Relics and Treasures** – All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures, relics, antiquities and other similar things which shall be found in or upon the site shall be property of the RailTel and the Contractor shall duly preserve the same to the satisfaction of the RailTel and shall from time to time deliver the same to such person or persons as the RailTel may appoint to receive the same.

- 4.14. Excavated material** – The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings, and produce shall be the property of the RailTel provided that the Contractor may, with the permission of the Executive Director/RailTel, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.

- 4.15. Indemnity by Contractors** – The Contract shall indemnify and save harmless the RailTel from and against all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the RailTel by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

- 4.16 Security Deposit & Performance Bank Guarantee**

- 4.16.1** Security Deposit for the work shall be 5% of the contract value (accepted values of Subhead I & II of SOR). The Earnest Money deposited by the successful tenderer with his tender will

be retained by the RailTel as part of security for the due and faithful fulfilment of the contract by the contractor and the balance amount shall be recovered from the payment bill to make up the security deposit. Security Deposits will be recovered only from the bill of the contractor and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc. shall be accepted towards Security Deposit.

- i. Security Deposit shall be returned to the contractor after adjustment of any dues payable by the contractor after the complete physical completion of the work and maintenance period of 12 months i.e. after issue of Final Acceptance Certificate as certified by the competent authority AND submission of PBG of 10% of accepted value of Schedule Of Requirement (SOR) item "SUB HEAD-III". The competent authority shall normally be the authority who is competent to sign the contract.
- ii. No interest will be payable upon the Earnest Money and Security Deposit or amount payable to the Contractor under the Contract.

4.16.2 Performance Bank Guarantee:

The successful bidder shall give a Performance Bank Guarantee in the form of an irrevocable bank Guarantee amounting to 5% of contract value for schedule (accepted values of Subhead I & II of SOR) as per Form No.4.

- (a) The successful bidder shall have to submit a Performance Bank Guarantee (PBG) within 15 (Fifteen) days from the date of issue of Letter Of Acceptance (LOA). Extension of time for submission of PBG beyond 15 (Fifteen) days and up to 30 days from the date of issue of LOA may be given by the authority who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e. from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PBG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any, payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.
- (b) The Performance Bank Guarantee should be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. The PBG shall be initially valid upto 60 days beyond warranty period. In case, the time for completion of work gets extended, the contractor shall get the validity of Performance Guarantee extended to cover such extended time, for completion of work plus 60 days.
- (d) The value of PBG to be submitted by the contractor will not change for variation up to 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Guarantee amounting to 5% (Five percent) for excess value over the original contract value shall be deposited by the contractor.
- (e) The Performance Bank Guarantee (PBG) shall be released after issue of "Provisional Acceptance Certificate" by the competent authority mentioning that the contractor has completed the work in all respects satisfactorily.
- (f) Separate Agreement for CAMC after Warranty Period (12 Months after issue of Provisional Completion Certificate) shall be entered with contractor by RailTel at accepted value of Schedule Of Requirement (SOR) item "SUB HEAD-III". This PBG shall be initially valid up to 60 days beyond CAMC period of 3 years. This will be released after successful and satisfactory completion of Comprehensive Annual Maintenance Contract for a period of 3 years as specified in the CAMC agreement.

- (g) Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Bank Guarantee shall be en-cashed. The balance work shall be got done independently without risk and cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or partnership firm, then every member or partner of such a firm shall be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/Partnership firm.
- (h) The Engineer shall not make a claim under the Performance Bank Guarantee except for amounts to which the RailTel is entitled under the contract (Notwithstanding, and /or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i) Failure by the contractor to extend the validity of the Performance Bank Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Bank Guarantee.
 - (ii) Failure by the contractor to pay RailTel any amount due either as agreed by the contractor or determined under any of the clauses/conditions of the agreement, within thirty days of the service of the notice to this effect by Engineer.
 - (iii) The contract being determined or rescinded, the Performance Bank Guarantee shall be forfeited in full and shall be absolutely at the disposal of the RailTel Corporation of India Ltd.

4.17. Completion Period

- 4.17.1 Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:
 - 4.17.1.1 If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the clause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.
 - 4.17.1.2 If in the opinion of the Engineer the progress of work has any time been delayed by any act or neglect of RailTel's employees or by other contractor employed by the RailTel under Para 4.20.4 of these conditions or in executing the work not forming part of the contract but on which contractor's performance necessarily depends or by reason of proceeding taken or threat-tended by or dispute with adjoining or neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the contractor not having received in due time necessary instructions from the RailTel for which he shall have specially applied in writing to the Engineer or his authorized representative then, upon happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the

satisfaction of the Engineer to proceed with the works. The contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. The engineer on receipt of such request from the contractor shall consider the same and shall grant such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time, the same rates, terms and conditions of contract being applicable as if such extended period of time was originally in the original contract itself.

4.17.1.3 In the event of any failure or delay by the RailTel to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the RailTel due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the contractor to damages or compensation therefore but in any such case, the RailTel may grant such extension or extensions of the completion date as may be considered reasonable.

4.17.2 Extension of time for delay due to contractor – The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in clause 4.11 and 4.17.1 above, the RailTel may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor further extension of time as the Engineer may decide. On such extension the RailTel will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the contractor as agreed damages and not by way of penalty as mentioned in para 5.35.1 of special conditions of contract.

4.17.2.1 For the purpose of this clause, the contract value of the works shall be taken as value of work (sub-head - I & II of SOR) as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall be as per para 5.35.1 of special conditions of contract. Provided further, that if the RailTel is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the RailTel shall be entitled, without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's security deposit and rescind the contract under clause 4.62 of these conditions, whether or not actual damage is caused by such default..

5.30.1 Illegal Gratification

4.18.1 Any bribe, commission, gift or advantage given, promised or offered by or on behalf to the Contractor or his partner, agent or servant or anyone on his behalf, to any officer or employees of the RailTel, or to any person on his behalf in relation to obtaining or the execution of this or any other contract with the RailTel shall, in addition to any criminal liability which he may incur, subject the contractor to the rescission of the contract and all other contracts with the RailTel and to the payment of any loss or damage resulting from such decision and the RailTel shall be entitled to deduct the amounts so payable from any moneys due to the Contractor (s) under this contract or any other contracts with the RailTel.

4.18.2 The Contractor shall not lend or borrow from or have or enter into any monetary dealings or transactions either directly or indirectly with any employee of the RailTel and if he shall do so, the RailTel shall be entitled forthwith to rescind the contract and all other contracts with

the RailTel. Any question or dispute as to the commission or any shall offence or compensation payable to the RailTel under this clause shall be settled by the Executive Director of RailTel, in such a manner as shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the Contractor will not be paid any compensation whatsoever except payments for the work done up-to-date of rescission.

4.19. Execution of Works

4.19.1 Contractor's understanding – It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.

4.19.2 Commencement of works – The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the RailTel and shall proceed with the same with due expedition and without delay. The work should be started with due intimation to RailTel.

4.19.3 Accepted programme of work

The Contractor who has been awarded the work shall as soon as possible but not later than 7 days from the date of receipt of the acceptance letter in respect of contracts with initial completion period of one year or less or not later than 15 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall and endeavour to fulfil this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

4.19.4 Setting out of works

The Contractor shall be responsible for the correct setting out of all works in relation to original reference at his cost. The Contractor shall execute the work true to specifications, drawings, plans and dimensions as mentioned in the contract document and as directed by the Engineer's representative and shall check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall cooperate with the Engineer's representative at all time, during the progress of the works. Any error shall appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work.

4.20. Compliance to Engineer's Instructions

4.20.1 The Engineer shall direct the order in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.

4.20.2 Alterations to be authorized – No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions from the Engineer, and the Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.

4.20.3 Extra Works - Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works, which may be carried out by another contractor or contractors or by other means at the sole discretion of the RailTel.

4.20.4 Separate Contracts in connection with works

The RailTel shall reserve the right to let other contracts in connection with the works. The Contractor shall afford other contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the Contractor's work depends for proper execution or result upon the work of another contractor(s), the Contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The

Contractor's failure so to inspect and report shall constitute as acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.

4.21. Instructions of Engineer's Representative

Any instructions or approval given by the Engineer's representative to Contractor in connection with the works shall bind the Contractor as though it had been given by the Engineer provided always as follows: -

4.21.1 Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.

4.21.2 If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.

4.22. Adherence to specifications and drawings

4.22.1 The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If the Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuring there- from and shall be responsible for all loss to the RailTel.

4.22.2 Drawings and specifications on the works:

4.22.2.1 The contractor shall prepare and get approved the design and drawings of the entire system from Railtel's Engineer for the Railtel's Equipment Room indicating all the required details before carrying out the work. The contractor shall keep one copy of Drawings and specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative.

4.22.2.2 The supply of equipment and materials shall include supply of one set of printed documents from original equipment manufacturers with each equipment as given in technical supplement.

4.22.3 Ownership of Drawings and Specifications – All drawings and Specifications and copies thereof furnished by the RailTel to the Contractor are deemed to be the property of the RailTel. They shall not be used in another works and with the exception of the signed contract set, shall be returned by the Contractor to the RailTel on completion of the work or termination of the Contract.

4.22.4 Compliance with Contractor's request for details – The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request for the same, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.

4.22.5 Meaning and Intent of specification and drawings

If any ambiguity arises as to the meaning and intent of any portion of the Specifications and Drawings or as to execution or quality of any work or material, or as to the measurements of the works, the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the Contractor) to the competent authority in RailTel who shall have the power correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.

4.23. Working during night

The Contractor shall not carry out any work between sunset and sunrise without the previous permission of the Engineer. Hence, no "night duty" shall be payable to the contractor for the portion/part of the works to be undertaken during the night.

4.24. Damage to Govt. /RailTel property or private life and property

The Contractor shall be responsible for all risk to the works and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or any other property of the Railways/RailTel or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the RailTel and this although all reasonable and proper precautions may have been taken by the Contractor, and in case the RailTel shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's

Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor the amount of any costs or charges including costs and charges in connection

with legal proceedings, which the RailTel may incur in reference thereto, shall be charged to the Contractor. The RailTel shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the Contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Contractor, as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defense or compromise, and the incurring of any such expenses shall not be called in question by the Contractor.

4.25. Sheds, Stores houses and Yards

The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, store houses and yards a sufficient quantity of materials and plant in stock so as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, store houses or yards by the contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the execution of the works.

4.26. Provision of efficient and competent staff

The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and laborers in or about the execution of any of these works as are careful and skilled in various trades and callings. The Contractor shall at once remove from the works any agents, permitted petty/sub-contractor, supervisor, workman or laborer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him. In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect take on the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the RailTel to rescind the contract under Para 4.62 of these conditions.

4.27. Workmanship and Testing

- 4.27.1 The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars. Instructions and drawings may be found requisite to be given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions, which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by Mean of such machines, instruments and appliances as the Engineer may direct and wholly at the

expense of the Contractor.

4.27.2 Removal of Improper work and materials – The Engineer or the Engineer's representative shall be entitled to order from time to time:

4.27.2.1 The removal from the site within the time specified in the order of any materials, which in his opinion are not in accordance with the specifications or drawings.

4.27.2.2 The substitution of proper and suitable materials, and

4.27.2.3 The removal and proper re-execution, notwithstanding any previous tests thereof or payments therefore, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order the RailTel shall be entitled to rescind the contract under Para 4.62 of tender document of these conditions.

4.28. Facilities for Inspection

The Contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, instruments, appliances and things of every kinds required for the purpose and the Engineer and the Engineer's representative shall at all time have free access to every part of the works and to all places at which materials for the work are stored or being prepared.

4.29. Examination of work before covering up

The Contractor shall give two days notice to the Engineer or the Engineer's Representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the Reach of Measurements in order that the work may be inspected or that correct dimension may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's Representative be uncovered and measured at the contractor's expense or no allowance shall be made for such work or materials.

4.30. Temporary works

All Temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor and subject to the consent of the Engineer, shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charge shall be recovered from the Contractor. If temporary huts are provided by the Contractor on the RailTel/Railway land for labour engaged by him and the work is completed but the contractor's labour refused to vacate and have to be removed by the RailTel, necessary expenses incurred by the RailTel in connection therewith shall be borne by the Contractor.

4.31. Contractor to supply water for works

4.31.1 Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of water for the works.

4.31.2 Contractor to arrange supply of Electric power for works.

4.31.3 Electric supply from the Railtel system

The RailTel may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the Railtel's existing electric supply systems at or near the site of works on specified terms and conditions and such charges as shall be determined by the RailTel and payable by the contractor provided the cost of arranging necessary connection to the Railtel's Electric supply systems, and laying of underground/overhead conductors, circuit protection, electric power meters, transmission structure, shall be borne by the Contractor and that the contractor shall not be entitled to any compensation or reason for delay for interruption or failure of the Electric supply system.

4.32. Property in material and Plants

Deleted.

4.33. Tools, Plant and Materials Supplied by the RailTel

4.33.1 Deleted.

4.34. Precaution during progress of work

4.34.1 During the execution of works, unless otherwise specified the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury, loss is caused or likely to be caused to any person or property.

4.34.2 Roads and water courses : Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any authorized closure, or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due to him in terms of contract or otherwise according to law.

4.34.3 Provision of access to premises: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision of the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or meant for lightning which may be interrupted by reason of the execution of the works and shall react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.

4.34.4 Safety of Public: The Contractor shall be responsible to take all precautions to ensure the safety of the public or Railway/RailTel's staff/property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.

4.35 Use of Explosives

Explosive shall not be used on the works or on the site by the Contractor without the permission of the Engineer and then only in the manner and to the extent to which such permission is given. Where explosives are required for the works, the same shall be stored in a special magazine to be provided by and at the cost of the Contractor in accordance with

the Explosive Rules. The Contractor shall obtain the necessary license for the storage and the use of explosives and all operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the Railway/RailTel in respect thereof.

4.36 Suspension of Works

4.36.1 The Contractor shall on the order of Engineer suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is: -

- (a) Provided for in the contract, or
- (b) Necessary for the proper execution of the works or by the reason of act of God or by some default on the part of the Contractor, and or
- (c) Necessary for the safety of the works or any part thereof.

4.36.2 The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works; but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contractor shall be entitled to such extension of time for completion of the works as the engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspensions.

4.36.3 Suspension lasting more than 3 month – If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the RailTel.

4.37 Rates for items of works

The rates entered in the accepted Schedule Of Requirements of the Contract are intended to provided for works duly and properly completed in accordance with the general and special conditions of the contract and the specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Para 4.42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply including full freight of materials, stores, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the RailTel, the erection, maintenance and removal of all temporary works and buildings, all arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the RailTel, the setting of all work and of the construction, repair and upkeep of all center lines, bench marks and level pegs thereon, site clearance, all fees, duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract, and all such other incidental charges or contingencies as may

have been specially provided for in the specifications.

4.38 Demurrage and wharfage dues

- 4.38.1 Demurrage charges calculated in accordance with the scale in force for the time being on the RailTel and incurred by the Contractor failing to load or unload any goods of materials within the time allowed by RailTel for loadings as also wharfage charges, of materials not removed in time as also charges due on consignments booked by or to him shall be paid by the Contractor, failing which such charges shall be debited to the Contractor's account in the hands of the RailTel and shall be deducted from any sums which may become due to him in terms of the contracts.

4.39 Rates for extra items of works

- 4.39.1 Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted schedule of rates shall be executed at the rates set forth in the "Schedule Of Requirements" modified by the tender percentage and such items are not contained in the latter, at the rate agreed upon between the Engineer and the Contractor before the execution of such items of work and the contractors shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted Schedule Of Requirements does not include rate or rates for the extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the RailTel shall be entitled to execute the extra works by other means and the contractor shall have no claim for loss or damage that may result from such procedure.
- 4.39.2 Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However if the contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the competent authority of RailTel within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The competent authority of RailTel's decision after hearing both the parties in the matter would be final and binding on the Contractor.

4.40 Handing over of works

- 4.40.1 The Contractor shall be bound to hand over the works executed under the contract to the RailTel complete in all respect to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the contractor shall be bound to observe any such determination of the Engineer.
- 4.40.2 Clearance of Site on Completion: On completion of the works the contractor shall clear away and remove from the site all constructional plant, surplus material, rubbish and temporary works of every kind and leave whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the work shall be paid, held to be due or shall be made to the contractor till, in addition

to any other condition necessary for such final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. It Should become necessary for the Engineer to have the site cleared at the expense of the Contractor, the RailTel shall not be held liable for

any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be affected by means of public sales of such materials and property or in such a way as deemed for and convenient to the Engineer.

4.41 Variations in Extent of Contract

- 4.41.1 Modification to Contract to be in writing – In the event of any of the provisions of the Contract requiring to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the RailTel and the Contractor, and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the Contract or any of the terms thereof shall be deemed conditional and shall not be binding on the RailTel unless and until the same is incorporated in a formal instrument and signed by the RailTel and the Contractor and till then the RailTel shall have the right to repudiate such arrangement.

4.42 Powers of Modification to Contract

- 4.42.1 The Engineer on behalf of the RailTel shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character, position, site quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled to any compensation for any increase / reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.

- 4.42.2 Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity for each individual item of the contract would be up to $\pm 25\%$ of the quantity originally contracted. The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation, whatsoever upto the limit of $\pm 25\%$ variation in quantity of individual items of works.

- 4.42.3 **Valuation of Variations** – The enlargements, extensions, diminution, reduction, alterations or additions referred to in sub-clause (2) of this clause shall in no degree affect the validity of the contract but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted schedule of rates. Any extra items/quantities of work falling outside the purview of the provisions of sub-clause (2) above shall be paid for at the rates determined under clause 4.39 of these conditions.

4.43. Claims

- 4.43.1 Deleted.

- 4.43.2 **Signing of “No Claim” Certificate** – The Contractor shall not be entitled to make any claim whatsoever against the RailTel under or by virtue of or arising out of this contract, nor shall the RailTel entertain or consider any such claim, if made by the Contractor, after he shall have signed a ‘No Claim’ certificate in favour of the

RailTel, in such form as shall be required by the RailTel, after the works are finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim Certificate" or demanding a preference to arbitration in respect thereof.

4.44. Measurements, Certificates and Payments

Qualities in schedule annexed to Contract - The quantities set out in the accepted Schedule of Requirements with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the works to be executed by the Contractor in fulfilments of his obligations under the contract.

4.45. Measurements of Works:

4.45.1 Deleted.

4.46 Payments (Payment for Design, Supply, Installation, testing & commissioning of system)

4.46.1 The Contractor shall be entitled to be paid only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's or the Engineer's Representative's certificates of measurements shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Para 4.16 of these conditions, a retention of by way of security deposits, until the amount of security deposit by way of retained earnest money and such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate if the works or any part thereof are not being carried out to his satisfaction.

4.46.2 Rounding off amounts: The total amount due shall be rounded off to the nearest rupee i.e. sums less than 50 paise shall be omitted and sums of 50 paise and more upto Rs. 1/- will be reckoned as Rs. 1/-.

4.46.3 Deleted.

4.46.4 Manner of payment: Unless otherwise specified payments to the Contractor will be made through RTGS.

4.47. Maintenance of works:

The contractor shall at all times during the progress and continuance of the works and also for the period of warranty specified in the tender form after the date of passing of the certificate of completion by the Engineer or any earlier date subsequent to the completion of the works that may be fixed by the Engineer be responsible for and effectively maintain and uphold in good substantial sound and perfect conditions all and every part of the work and shall make good from time to time and at all times as often as the Engineer shall require. Any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and make good to the RailTel or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damage, costs and expenses they or any of them may incur or be put or be liable, by reason or in consequence of the operations of the contractor or of his failure in any respect. For this purpose the tenderer will submit their strategy for providing maintenance support including the staff that

will be available along with the set of spares for attending to various faults/problems during maintenance period.

4.48 Certificate of Completion of works

4.48.1 As soon as in the opinion of the Engineer the works shall have been substantially completed of a Block and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a Provisional Acceptance Certificate in respect of the works and period of warranty shall commence from the date of issue of Provisional Acceptance Certificate after completion of the work of all sites. Minor defects pointed out while issuing PAC shall be attended by the contractor within reasonable period of time to the satisfaction of Engineer.

4.48.2 Contractor not absolved by Provisional completion Certificate (PAC): The Certificate of completion in respect of the works referred to in Para 4.48.1 of this clause shall not absolve the Contractor from his liability to make good any defect, imperfection, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawing or specifications or instructions of the Engineer, which defect, imperfections, shrinkages or faults shall upon the direction in writing of the Engineer, be amended and made good by the Contractor at his own cost; and in case of default on the part of Contractor the Engineer may employ, labour and material or appoint another Contractor to amend and make good such defect, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.

4.49. Approval only by Final Acceptance Certificate (FAC)

No certificate other than Final Acceptance Certificate referred to in Para 4.50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or of the accuracy of any demand made by the Contractor or of additional varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineers.

4.50. Final Acceptance Certificate

4.50.1 The contract shall not be considered as completed until a maintenance Certificate (Final Acceptance Certificate) shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The maintenance certificate shall be given by the Engineer upon the expiration of the warranty period of or as soon thereafter as any work ordered during such period pursuant to Para 4.48.2 of these conditions shall have been completed to the satisfaction of the Engineer and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the RailTel.

4.50.2 **Cessation of RailTel's Liability:** The RailTel shall not be liable to the Contractor for any matter arising of or in connection with the contract of the execution of the works unless the Contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate (FAC) under this clause.

4.50.3 **Unfulfilled obligations** - Notwithstanding the issue of the Maintenance Certificate the Contractor and (subject to Para 4.50.2) RailTel shall remain liable for the fulfillment of any obligation incurred under the provision of the contract prior to the issue of the maintenance

Certificate (FAC) which remains unperformed at the time such certificate is issued and for the purposes of determining the nature and extent of any such obligations the contract shall be deemed to remain in force between the parties thereto.

4.51. Final payment

4.51.1 On the Engineer's certificate of completion in respect of the works an adjustment shall be made and the balance of account based on the Engineer or the

Engineer's representative's on the accepted schedule or rates and for extra works on rates determined under Para 4.39 of these conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having delivered to the Engineer either a full account in detail of all claims he may have on the RailTel in respect of the works or having delivered "No Claim" Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claim are correct, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or loss by from kin consequence of the works, have been satisfied agreeably and in conformity with the contract.

4.51.2 **Post payment Audit** – It is an agreed term of contract that the RailTel reserves to itself the right to carry out a post-payment audit and or technical examination of the works and the final bill including all supporting vouchers, abstracts, etc., and to make a claim on the contractor for the refund any excess amount paid to him if as a result of such examination any over-payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

4.51.3 Deleted.

4.52. Withholding and lien in respect of sums claimed

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the RailTel 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 RailTel shall be entitled to withhold the said 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 RailTel shall be entitled to withhold and have a lien 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 this or any other RailTel or any Department of the Central Government 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 RailTel's will be kept withheld or retained as such by the RailTel till the claim arising out of or under the contract is determined by the arbitrator (if the Contract is covered by the arbitration clause) or by the competent court 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. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the RailTel 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.

- 4.52.1 **Lien in respect of claims in Other Contracts** – Any sum of money due and payable to the contractor (Including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the RailTel, against any claim of this or any other RailTel or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of Central Government. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the RailTel will be kept withheld or retained as such by the RailTel till the Claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest of money withheld or retained under this clause and duly notified as such to the contractor.

4.53. Signature on Receipts for Amounts

Every receipt which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by any one of the partners of a Contractors firm be a good and sufficient discharge to the RailTel in respect of the moneys or security purported to be acknowledged thereby and in the event of death of any of the Contractor partners during the pendency of the contract it is hereby expressly agreed that every receipt by any one of the surviving Contractor partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the RailTel may hereafter have against the legal representative of any contractor partner so dying, for or in respect of any breach of any of the conditions of the contract, provided also, that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representative of any deceased Contractor partners interest.

4.54. Labour

- 4.54.1 **Wages to Labour** – The Contractor shall be responsible to ensure compliance with the provisions of the Minimum Wages Act, 1948 (hereinafter referred to as the “said Act”) and the Rules made there-under in respect of any employees directly or through petty contractors or sub-contractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract. If in compliance with the terms of the contract, the contractor supplied any labour to be used wholly or partly under the direct orders and control of the RailTel whether in connection with any work being executed by the contractor or otherwise for the purpose of the RailTel such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor. If any moneys shall as a result of any claim or any claim or application made under the said Act be directed to be paid by the RailTel's, such moneys shall be deemed to be moneys payable to the RailTel by the Contractor and on failure by the Contractor to repay any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the RailTel's shall be entitled to recover the same form any moneys due or accruing to the contractor under this or any other Contractor with the RailTel's.

4.54.2 **Apprentices Act** – The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act 1961 and the Rules and Orders issued there- under from time to time in respect of apprentices directly through petty contractors or sub-contractors employed by him for purpose of carrying out the contract. If the Contractor directly or through petty contractor or sub-contractors fails to do so, his failure will be a breach of the contract and the RailTel may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

4.55. **Provisions of Payments of Wages Act**

The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made there under in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works. If in compliance with the terms of the contract, the contractor directly or through petty contractors or sub -contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall nevertheless be deemed to comprise persons employed by the contractor, and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on moneys due to the contractor in terms of the contract. The RailTel shall be entitled to deduct from any moneys due to the contractor (Whether under this contract or any other contract all moneys paid or payable by the RailTel by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the contractor.

4.55.1 Provision of Contract Labour (Regulation and Abolition) Act, 1970

- (1) The Contractor shall comply with the provision of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Act, Central Rules, 1971 as modified from time to time, whenever applicable and shall also indemnify the RailTel 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 work and continue to have a valid license until the completion of the work. Any failure to fulfill this requirement shall attract the penal provision of the Contract arising out of the resultant non- execution of the work.
- (3) The Contractor shall pay to the 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, because to be paid the wages to labour indirectly engaged on the work including any engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
- (4) In respect of all labour directly or indirectly employed in the work 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 RailTel is obliged to pay any amount of wages to a workmen employed by the contractor or his sub-contractor in execution of the work 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 in providing welfare and health amenities required to be provided under the aforesaid Act the Rules or to incur any expenditure on account of the contingent liability of the RailTel due to contractor's failure to fulfill his statutory obligations under the aforesaid Act or the Rules the RailTel 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 RailTel under section 20, sub-section (2) and section 2 sub - section (4) of the aforesaid Act, the RailTel 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 RailTel to the contractor whether under the contract or otherwise. The RailTel shall not be bound to contest any claim made against it under sub- section (1) 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 RailTel full security for all costs for which the RailTel might become liable in contesting such claim. The decision of the RailTel regarding the amount actually recoverable from the contractor as stated above shall be final and binding on the contractor.

4.56. Reporting of Accidents to Labour

The Contractor shall be responsible for the safety of all employees directly or through petty contractors or sub-contractors employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineer's Representative and shall make every arrangement to render all possible assistance.

4.57. Provisions of Workmen's Compensation Act

In every case in which by virtue of the provision of Section 12 sub-section (1) of the Workmen's Compensation Act, 1923, RailTel is obliged to pay compensation to a workman directly or through the petty Contractor employed by the Contractor or sub- contractor in executing the work, RailTel will recover from the contractor the amount of the compensation so paid, and, without prejudice to the right of RailTel under Section 12 sub-section (2) of the said Act. RailTel shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by RailTel to the Contractor whether under these conditions or otherwise, RailTel shall not be bound to contest any claim made against it under Section 12, sub-section (1) of the said Act except on the written request of the Contractor and upon his giving to RailTel full security for all costs for which RailTel might become liable in consequence of contesting such claim.

4.58. RailTel not to provide quarters for Contractor

No quarters shall be provided by the RailTel for the accommodation of the contractor or any of his staff employed on the work.

4.59. Labour camps

- (1) The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workman directly or through the petty contractors or sub-contractors and for temporary crèche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on Railway/RailTel land, if available, may be allotted to the Contractor for the erection of labour camps either free of charge or on such terms and conditions that may be prescribed by the RailTel. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.
- (2) **Compliance to Rules for Employment of Labour** The Contractor(s) shall conform

to all laws, bye-laws, rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty Contractors or sub -contractors on the works.

- (3) **Preservation of Peace** – The Contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen and others employed directly or through petty contractor or sub- contractors on the works and preserve the health and safety of all staff employed directly or through petty Contractors or sub - contractors on the works.
- (4) **Sanitary Arrangement** – The contractor shall obey all sanitary rules and carry out all sanitary measures that may time to time be prescribed by the RailTel Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the RailTel. Should the Contractor fail to make adequate sanitary arrangements, these will be provided by the RailTel and the cost therefore recovered from the contractor.
- (5) **Outbreak of Infectious Disease** – The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the Railway/RailTel Medical Authority. Should Cholera, Plague or other infectious disease break out, the Contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the RailTel and the cost therefore recovered from the Contractor.
- (6) Treatment of Contractor's staff in Railway Hospitals – Deleted
- (7) **Medical facilities at site** – The contractor shall provide medical facilities at the site as may be prescribed by the engineer on the advice of the medical authority in relation to the strength of the contractor's resident staff, and workmen.
- (8) **Use of Intoxicants** – The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.
- (9) **Non-employment of Female Labour** – The contractor shall see that the employment of female labour in cantonment areas, particularly in the neighborhood of soldier's barracks, should be avoided as far as possible.
- (10) Restrictions on the employment of retired Engineers of Railway/Govt. services within two years of their Retirement– The contractor shall not, if he is a retired government engineer of Gazetted rank, who has not completed two years from the date of retirement, in connection with his contract in any manner whatsoever without obtaining prior permission of the President and if the contractor is found to have contravened this provision, it will constitute a breach of contract Administration will be entitled to terminate the contract at the risk and cost of the contractor and forfeit his security deposit.

4.60 Non-Employment of Labourers below the age of 15

- (1) The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or sub-contractors for the execution of work.
- (2) **Medical Certificate of Fitness for Labour** – It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under this contract unless a medical certificate of fitness in the prescribed form granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work, a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expense to be incurred on this account shall be borne by him and no fee shall be

charged from the adolescent or his parent for such medical examination.

- (3) **Period of Validity of Medical Fitness Certificate** - A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, stated his reasons in writing for doing so.
- (4) **Medical Re-examination of Labourer** - Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15- 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such person shall be examined by a certifying surgeon and such person shall not, if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of illness or a fresh certificate or a fresh certificate of illness, as the case may be.

4.61 Determination of Contract

- 4.61.1 **Right of RailTel to determine the contract:** The RailTel shall be entitled to determine and terminate the contract at any time, should in the RailTel's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons therefore shall be conclusive evidence thereof.
- 4.61.2 **Payment on determination of contract:** Should the contract be determined under Para 4.61.1 and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the RailTel shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfactions of the Engineer. The RailTel's decision on the necessity and propriety of such expenditure shall be final and conclusive.
- 4.61.3 The contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

4.62. Termination of contract owing to default of contractor

- 4.62.1 (A) If the Contractor :
- (i) becomes bankrupt or insolvent, or
 - (ii) make an arrangement with or assignment in favour of his creditors, or
 - (iii) being a Company or Corporation, go into liquidation (other than voluntary), liquidation for the purpose of amalgamation or reconstruction, or
 - (iv) have an execution levied on his goods or property on the works, or assign the contract or any part thereof otherwise than as provided in Para 5.21 of SCC, or
 - (v) have an execution levied on his goods or property on the works, or assign the contract or any part thereof otherwise than as provided in Para 5.21 of SCC, or
 - (vi) persistently disregard the instructions of the RailTel's Engineer with regard to work quality or progress during execution of work or contravene any provision of the contract, or
 - (vii) fail to adhere to the agreed programme of work by a margin of 10% of the Stipulated period, or fail to remove materials from the site or to pull down and replace the work after receiving from the Engineer's notice to the effect that the said materials or works have been condemned or rejected, or
 - (viii) fail to take steps to employ competent or additional staff and labour as required under Para 4.26 of tender document.

- (ix) fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Para 4.28 of tender document, or
 - (x) Promise offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of RailTel or any person on his or on their behalf in relation to the execution of this or any other contract with the RailTel,
 - (xi) At any time after the tender relating to the contract has been signed and submitted by the contractor, being a partnership firm admit as one of its partners or employ under it or being an incorporated company elect or nominate or allow to act as one of its directors or employ under it in any capacity whatsoever any retired engineer of the gazetted rank or any other retired gazetted officer working before his retirement, whether in the executive or administrative capacity, or whether holding any pensionable post or not, in the Engineering Department of the Railways for the time being owned and administered by the President of India before the expiry of two years from the date of retirement from the said service of such Engineer or Officer unless such Engineer or Officer has obtained permission from the President of India or any officer duly authorized by him in this behalf to become a partner or a director or to take employment under the contract as the case may be, or
- (B) Fail to give at time of submitting the said tender :
- (a) The correct information as to the date of retirement of such retired engineer or retired officer from the said service, or as to whether any such retired engineer or retired officer was under the employment of the contractor at the time of submitting the said tender, or
 - (b) the correct information as to such engineers or officers obtaining permission to take employment under the contractor, or
 - (c) being a partnership firm the correct information as to, whether any of its partners was such a retired engineer or retired officer, or
 - (d) being an incorporated company, the correct information as to, whether any of its directors was such a retired engineer or retired officer, or
 - (e) being such a retired engineer or retired officer suppress and not disclose at the time of submitting the said tender the fact of his being such a retired engineer or a retired officer or make at the time of submitting the said tender a wrong statement in relation to his obtaining permission to take the contract or if the contractor be a partnership firm or an incorporated company to be a partner or director of such firm or company as the case may be or to seek employment under the contractor. Then and in any of these said clauses, the Engineer on behalf of the RailTel may serve the Contractor with a notice in writing to that effect and if the Contractor does not, within 7 days after the delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid to the entire satisfaction of the Engineer, the RailTel shall be entitled after giving 48 hours notice in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and adopt either or both the following courses: A final termination notice will be issued by RailTel after expiry of 48 hrs notice.

4.62.2 Right of Railtel after termination of contract owing to default of contractor

In the event of any or several of the courses, referred in Para 4.62.1 of tender document above, being adopted:

- (a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any works thereto not actually performed under the contract, unless or until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.
- (b) The Engineer or Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery or buildings on the works or on the property on which these are being or ought to have been executed, and to retain the (employ the same) in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.
- (c) The Engineer shall, as soon as may be practicable after removal of the Contractor fix and determine expert or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) has at the time of termination of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract what was the value of any unused or partially used materials, any constructional plants and any temporary works upon the site. The legitimate amount due to the contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

4.63. Matters finally determined by the RailTel

All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract shall be referred by the contractor to the RailTel and the RailTel shall within 120 days receipt of the

Contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matters for which provision has been made in Para 4.8, 4.18, 4.22.5, 4.29, 4.43.2, 4.45(a), 4.55, 4.55.1(5), 4.57, 4.61.1, 4.61.2 and 4.62.1(A) of General Condition of Contract or in any clause of the

Special Conditions of the Contract shall be deemed as 'excepted matters' and decisions of the RailTel's authority, thereon shall be final and binding on the contractor provided further that 'excepted matters' shall stand specifically excluded from the purview of the arbitration clause and not be referred to arbitration.

4.64 Settlement of dispute and arbitration

- 4.64.1 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 a sole arbitrator in accordance with provisions contained in 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 New Delhi.

- 4.64.2 All arbitration proceedings shall be conducted in English. Resources against any Arbitral award so rendered may be entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.
- 4.64.3 The Arbitral Tribunal shall consist of the sole Arbitrator if the value of claim is upto Rs. 10 Lakhs. The arbitrator will be appointed by the Managing Director of RailTel Corporation of India Ltd. If the value of claim or amount under dispute is more than Rs. 10 Lakhs, the matter shall be referred to the adjudication of arbitral council. Chairman cum Managing Director/RailTel shall furnish a panel of three names to the contractor, out of which the contractor will recommend one name to be his nominee and then Chairman cum Managing Director/RailTel shall appoint out of the panel, one name as RailTel's nominee and these two arbitrators with mutual consent appoint a third arbitrator who shall act as deciding. The award of the sole arbitrator or the Arbitral council, as the case may be, shall be final and binding on both the parties, i.e. Contractor and RailTel Corporation of India Ltd.
- 4.64.4 Each of the parties agree that notwithstanding that the matter may be referred to Arbitrator as provided therein, 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.

CHAPTER – 5

SPECIAL CONDITIONS

OF

CONTRACT

CHAPTER - 5

Special Conditions of Contract

I N D E X

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CHAPTER - 5

SPECIAL CONDITIONS OF CONTRACT

5.1. TENDER DOCUMENT

- 5.1.1 The goods and services required, bidding procedure and contract terms are prescribed in the tender documents. The set of tender documents issued for the purpose of bidding includes following together with any addendum and corrigendum thereto.
- 5.1.2 If the Tender submitted by a Tenderer is accepted and the contract awarded to the Tenderer, the various works coming under the purview of the contract shall be governed by tender documents mentioned above.
- 5.1.3 Any special conditions stated by the Tenderer in the covering letter submitted along with the tender shall be deemed to be a part of the Contract to such extent only as have been explicitly accepted by the RailTel .

5.2. AGREEMENT

- 5.2.1 The successful Tenderer shall within 15 days after having been called upon by notice to do so be bound to execute an agreement based on accepted rates and conditions, in such form as the RailTel may prescribe, and lodge the same with the RailTel together with the conditions of contract, specifications and Schedule Of Requirements referred to therein duly completed. The form for agreement is included in, Chapter - 6 (Form No.3).
- 5.2.2 In the event of any tenderer whose tender is accepted, refused to execute the Contract documents as herein before provided RailTel may determine that such tenderer has abandoned the contract and thereupon his tender and the acceptance thereof shall be treated and RailTel shall be entitled to forfeit the full amount of the earnest money and to recover the liquidated damage for such default.

5.3 SECURITY DEPOSIT & PERFORMANCE BANK GUARANTEE

Refer para 4.16 of chapter-4.

5.4. CONTRACTOR'S OFFICE & STORES DEPOT

The Contractor shall within 10 (ten) days of issue of letter of acceptance of tender establish an office and store depot at a convenient place for receiving and storing equipments and materials and progressing field work expeditiously in consultation and with the approval of the purchaser's Engineer. He shall intimate the address thereof to which all correspondence should be sent. Any communication sent to the contractor by post at his said address shall be deemed to have reached the contractor duly and in time. Important documents shall be sent by Registered post.

5.5 USE OF RAILWAY LAND

Use of Railway land required by the Contractor for construction of temporary offices, quarter(s), hutments etc. for the staff and for storing materials etc. will be permitted to him/them subject to approval by Railways, if available at the charges prescribed by the Railways. The land will be restored to Railways by the Contractor(s) in the same condition as when taken over or in vacant condition as desired by the Engineer after completion of the work or at any earlier day as specified by the Engineer. Failure to do so will make the Contractor(s) liable to pay the cost incurred by the Railway for getting possession of land.

5.6. PROGRAMME OF WORK

5.6.1 Refer Para 4.19, 4.20, 4.21, 4.22, 4.23 and 4.26.

5.6.2. The contractor will program his work in such a manner so as not to interfere in the working and movement of traffic.

5.7. COMPETENT SUPERVISORS

Refer Para 4.26.

5.8. STORES TO BE SUPPLIED BY RAILTEL

Refer Para 1.17.

5.9. ENGAGEMENT OF QUALIFIED ENGINEER

If the total cost of the tenderer's offer is Rs.10 lakhs or more, the tenderer(s) shall also give a declaration along with his / their tender to the effect that he / they shall engage and continue in service for the period of the contract, one degree holder and also at least one diploma holders having minimum one year experience in the relevant area of operation. They will be paid as under:

Degree holders	:	Not less than Rs.10,000/- per month for the duration of the contract.
Diploma Holders	:	Not less than Rs.6,000/- per month for the duration of the contract.

If, the tenderer(s) fails/fail to comply the above declaration, his/their tender will be ignored. In case it is subsequently discovered that the declaration as aforesaid is in any way incorrect or the information furnished therein is wrong, the administration reserves the right to rescind the contract and to take action in accordance with clause 4.61 of the General Condition of Contract.

5.10. TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.

5.10.1 Special tools & instruments required for installation and commissioning of the work as detailed in preamble shall be arranged by contractor at his own cost.

5.10.2 All tests and measuring instruments and other arrangements required for carrying out all the acceptance tests etc shall be provided by the contractor at his own cost.

5.11. STORES TO BE SUPPLIED BY CONTRACTOR

Refer Para 1.18 .

5.12 SUPPLY OF TECHNICAL LITERATURES, DOCUMENTATION DRAWINGS, INSTRUCTION BOOK & COMPLETION PLANS ETC.

5.12.1 The contractor shall supply complete documentation in Electronic form and Hard Copies. This includes supply of related drawings, documents, test reports, maintenance schedule registers and other necessary drawings/documents.

One set of tracings with 3 sets of prints for cable route plans drawn in CAD giving complete details. Necessary corrections as desired shall be done and final tracings should get approved. After completion of work, the As Built Drawings shall be made.

5.12.2 Deleted.

5.13 SPARES

Deleted.

5.14 FUTURE AVAILABILITY OF SPARES AND ADDITIONAL PART

For future expansion / maintenance of the system, Railtel may require spares and additional parts or other components. Contractor shall guarantee that spares and such additional part will be supplied as and when Railtel place order for the same. Any orders placed by the Railtel on the contractor within the expiry of warranty period will be fully honoured. The fact that the contractor is supplying some materials from third party will not absolved the tenderer from his responsibility.

5.15. QUALITY ASSURANCE

All the materials supplied are technically inspected and accepted by purchase's representatives. In the event of RailTel waiving off the inspection, the quality assurance department of the manufacturer shall carry out all the tests as per the specification and issue a certificate indicating clearly the test results and the adherence to the technical specifications. This is without prejudice to the purchaser's right to accept or reject the supplies if not found in conformity to its requirement.

5.16. Not used.

5.17 INSPECTION OF MATERIALS

5.17.1 All equipments materials fittings and components supplied by the contractor are required to be inspected as per the codes and specifications by the purchaser (Railtel) or his representative before accepting the delivery

- 5.17.2 The materials which are procured from RDSO approved firms with RDSO specification and if the cost of the material is over Rs. 1 Lakh, the inspection shall be carried out by RDSO. Inspection in respect of order below Rs. 1 Lakh will be got done by Consignee.
- 5.17.3 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer. The contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.
- 5.17.4 The inspection charges, if any, payable to the Railtel's representative for carrying out the inspection shall be borne by the Railtel.
- 5.17.5 The cost of equipment and materials, all tests and / or analysis performed for inspection shall be borne by the contractor.

5.18. **INSPECTION OF WORKS**

The Engineer or his representative may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of materials, workmanship or design in comparison to what is called for in the specification. In the event of rejection of any work already executed and not in accordance with specification as in this tender and/or as determined by the Engineer or which the Contractor has been apprised, the Contractor shall carry out alterations/ replacements to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the RailTel .

5.19. **QUANTUM OF WORK AND VARIATION IN QUANTITIES**

- 5.19.1. **Modification to contract to be in writing:** Please refer clause 4.41 of chapter 4.
- 5.19.2. **Powers of modification to contract :** The Engineer on behalf of the RailTel shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the contractor will not be entitled to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.
- (i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be up to 25% of the quantity originally contracted, except in case of foundation work. The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.

- (ii) Quantities operated in excess of 125% of the agreement quantity of the concerned item shall be paid 98% of the rate awarded for that item in this tender.
- (iii) Quantities operated in excess of 140% of but up to 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in this tender.
- (iv) Variation in quantities of individual items beyond 150% will be executed through fresh tenders or by negotiating with the existing contractor with finance concurrence and approval of competent authority.
- (v) The contract signing authority can decrease the items up to 25% of individual item without finance concurrence.
- (vi) For decrease beyond 25% for individual items, finance concurrence and approval of competent authority shall be taken after obtaining "No Claim Certificate" from the contractor.

5.19.2.3 Valuation of variations :- The enlargements, extensions, diminution, reduction, alterations or additions referred to in sub-clause (5.19.2) of this clause shall in no degree affect the validity of the contract but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted schedule of rates.

5.20. Not used.

5.21. SUBLETTING AND ASSIGNMENT

5.21.1 The contractor may sublet a part of the work under this contract and enter into contract with suppliers for supply of materials. The credentials of subcontractors shall be subjected to scrutiny and approval of RailTel.

5.21.2 The contractor shall arrange for effective supervision of sub contractor's work and remain solely responsible for materials supplied and for works carried out on his behalf by the sub-contractor.

5.22. EXECUTION OF WORK

All the works shall be executed in strict conformity to the provisions of the contract document and with such explanatory detailed drawings, specifications and instructions as may be approved from time to time based on detailed design and engineering carried out by contractor in line with requirements as per contract document. The contractor shall be responsible for ensuring that the work throughout are executed in the most substantial, proper and workman like manner with the quality of material and workmanship in strict accordance with the specifications and as per sound industrial practices and to the entire satisfaction of the RailTel.

5.23. Not used.

5.24. MAINTENANCE OF WORKS

The contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the tender form and after the date of passing of the certificate of completion by the RailTel 's representative or any other earlier date subsequent to the completion of the works that may be fixed by RailTel 's representative be responsible for and effectively maintain and uphold in good, substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times, as often as the RailTel 's representative shall require, any damage or defect that may, during the above period, arise in or be discovered or be in any way connected with the works provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot and the contractor shall be liable for and shall pay and make good to the RailTel or other persons legally entitled thereto whenever required by the RailTel 's representative so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to, by reason or inconsequence of the operations of the contractor or his failure in any respect.

5.25. CLEARANCE OF SITE

At the end of the work at each location the Contractor shall as a part of his Contractual obligation leave the area completely neat and clean.

5.26. PROVISIONAL ACCEPTANCE CERTIFICATE (PAC)

5.26.1 Immediately after the completion of the work at each site the contractor shall certify and advise the RCIL in writing that the installation is (i) complete (ii) ready for satisfactory commercial service and (iii) ready to be handed over.

5.26.2 The test or tests specified in Technical supplement (chapter 7) will be conducted jointly by RCIL and contractor as soon as possible after receipt of advice of completion of work from the contractor. The test schedule shall be finalized by mutual discussion between the contractor and M/S RailTel Corporation of India Limited, Delhi. Any component, modules, sub assemblies or equipment failing during the commissioning test shall be replaced/repared free of cost by tenderer.

5.26.3 Purchaser's Engineer shall issue a Provisional Acceptance Certificate (PAC) for successful commissioning of all materials and services included in the Schedule of Requirement after the final acceptance test as per the approved test procedures have been completed and the performance has been found to meet the specifications. PAC shall not be held up for want of minor deficiency which shall be attended by the contractor within reasonable time to the satisfaction of Engineer. RailTel's decision in this respect shall be final. The Provisional Acceptance Certificate shall be signed by both the parties.

5.27 MAINTENANCE OF WORK TILL ISSUE OF PAC

5.27.1 After the work has been completed & placed in service and Provisional Acceptance certificate issued by Railtel's Engineer, the contractor shall be

responsible for proper maintenance, supervision of the work for a period of twelve months from the date of PAC.

5.27.2 Deleted.

5.27.3 During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of any work, the contractor free of cost will rectify the same. During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract. .

5.27.4 The contractor shall be responsible for proper maintenance of the work at his own cost until PAC is issued and work of all sites are completed. During this period, the contractor shall have to attend any failure etc. which takes place.

5.28. FINAL ACCEPTANCE CERTIFICATE (FAC)

5.28.1 The final acceptance of the works completed shall take effect from the date of expiry of the period of warranty as defined in Para 5.29 i.e. on expiry of the warranty period from the date of issue of Provisional Acceptance Certificates or brought into commercial operation, provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract.

5.28.2 Notwithstanding the issue of Final Acceptance Certificate the contractor and the purchaser (subject to Sub Clause as above) shall remain liable for fulfilment of any obligation incurred under the provision of the contract prior to the issue of Final Acceptance Certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

5.29. WARRANTY

5.29.1 All equipment /material supplied by the Contractor shall be guaranteed against the defects for a period of 12 months from the date of issue of Provisional Acceptance Certificate. The contractor shall provide comprehensive warranty maintenance for all the items supplied by him against this tender.

5.29.2 Contractor will ensure availability of adequate spares for providing replacement of faulty material, items during the warranty.

5.29.3 If any equipment/material supplied by the contractor becomes defective during the warranty, the same shall be replaced by the contractor and total cost of such replacement shall be borne by the contractor. The replaced material will also be guaranteed for the remaining period of original warranty.

5.29.4 During the free warranty maintenance period contractor should stabilize the working of the system. RailTel has the right to extend the period of supervision of the maintenance free of cost till the system stabilizes and works satisfactorily for a

reasonable period of time. If during the time any equipment etc. is to be added or deficiencies are to be rectified to make the system work trouble free the same also will have to be done by the contractor free of cost as to make good all the deficiencies.

5.30. TRAINING

5.30.2 Refer para 1.1.3.

5.31. INFRINGEMENT OF PATENTS:

- (a) The Contractor is forbidden to use any patents or registered drawings, processes or patterns in fulfilling his contract without prior consent in writing of the owner of such patents, drawings, patterns or trademarks except where these are specified by the Purchaser himself. Royalties where payable for the use of such patented processes, registered drawings or patterns shall be borne exclusively by the Contractor. The Contractor shall advise the Purchaser of any proprietary rights that may exist on such processes, drawings or patterns which he may use of his own accord.
- (b) In the case of patents taken out by the Contractor of the drawings or patterns registered by him or of those patents, drawings or patterns for which he holds a license, the signing of the contract automatically gives the Purchaser the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him for carrying out the repair work. In the event of infringement of any patent rights due to above action of the Purchaser he shall be entitled to claim damages from the Contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.

5.32. LICENSE AS PER GOVT. OF INDIA CONTRACT LABOUR ACT

The Contractors are required to produce license as enjoined in the Government of India Contract Labour (Regulation and Abolition) Act, 1978 with latest amendments, if any. They shall not be allowed to undertake or execute any work through contract Labour except under and in accordance with a license issued under the said Act in that behalf by the authorized licensing Officer.

5.33. DEFAULTS AND DELAYS

The Contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Purchaser's Engineers in connection with the work or contravene the provision of the Contract or the progress of work lags persistently behind the time schedule due to his neglect, the Purchaser shall be at liberty to give seven days notice in writing to the Contractor requiring him to make good the neglect or contravention complained

of and should the Contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take the work wholly or in part out of the Contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the Contractor without prejudice to any other right or remedy of the Purchaser.

5.34. LOSS SUSTAINED DUE TO DEFAULTS AND DELAYS

In the event of any loss to the purchaser on account of execution and/or completion of the work or any part thereof by agencies other than the contractor, in terms of Para 5.33 of the tender document, the contractor shall be liable to reimburse the loss to purchaser without prejudice to the other rights and remedies of the purchaser and the reimbursement in full or in part, as the case may be, shall be met at the option of the purchaser from out of all or any of the following sources via :

- (a)
 - i) Any amount due and payable to the contractor by the purchaser on any account whatsoever;
 - ii) The Contractor's security deposit in the hands of the purchaser as far as available, and;
 - iii) Any other assets whatsoever of the contractor;
- (b) In the event of re-imbursement from out of sources (I) and/or (ii) above mentioned, the purchaser shall have the right of appropriation sue motto.

5.35. PENALTY FOR DELAY IN COMPLETION

5.35.1

The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in clause 5.48, the RailTel may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor for further extension of time (Performa Annex. II) as the Engineer may decide. On such extension the RailTel will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the contractor as agreed damages and not by way of penalty a sum equivalent to $\frac{1}{2}$ of 1% of the contract value of the works for each week or part of the week.

For the purpose of this clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition, shall not exceed the under noted percentage value or of the total value of the item or groups of items of work for which a separate distinct completion period is specified in the contract.

- (i) For contract value up to Rs. 2 lakhs 10 % of the value of the contract.

- ii) For contract value above Rs. 2 lakhs 10 % of the 1st 2 lakh and 5 % of the balance
- iii) The competent authority while granting extension of currency of the contract may also levy token penalty as deemed fit based on the merit of case.

Provided further, that if the RailTel is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the RailTel shall be entitled without prejudice to any other right or remedy available in that behalf; to appropriate the contractor's security deposit and rescind the contract under 49 of these conditions, whether or not actual damage is caused by such default.

5.35.2 Deleted.

5.36 ADHERENCE OF TIME SCHEDULE

5.36.1 Timely completion of the work is the essence of the contract. While delay in execution will attract penalty.

5.36.2 If any delay as aforesaid in Para 5.35 of tender document shall have arisen from any cause which the Purchaser may agree as being a reasonable ground for extension of time the purchaser's engineer or his representative may allow such additional time as he may in his absolute discretion consider to be reasonably justified by the circumstances of the case. Such extensions shall be granted, on request from contractor, with liquidated damages in the Form No.11.

5.37 CONTRACTOR'S LIABILITIES FOR COSTS AND DAMAGES

Refer Para 4.52 of the tender document.

5.38 PRICES

5.38.1 This tender consists of a percentage bidding system. The estimated prices of each and every item of the schedule are indicated in the Schedule of Requirements. At the end of schedule of requirement, RailTel's total estimated cost is given. The tenderer is expected to quote the %age above(+) / below(-) /at par the RailTel's total estimated cost indicated in the schedule.

The percentage above/below/at par finalized for the entire schedule shall be firm and on all-inclusive basis (inclusive all incidental charges for transport, loading/ unloading and handling of materials, commission for arranging dispatch by Rail direct from manufacturer's factory and completing all necessary formalities in this

respect, such as submission of forwarding notes, arranging placement of Wagon, collection of banker's charges for Bank guarantee, Indemnity Bonds inclusive of cost of Stamp etc., if any, levied by the RailTel).

- 5.38.2 The prices shall include all GST applicable on this Works Contract. Therefore, they should quote their rate taking into account the rate of sales tax on works contract as liveable. It is clarified that required form applicable for this purpose will be supplied to the Contractor as applicable in the state where the Contract is being executed.
- 5.38.3 The rate quoted by the tenderer shall include cost of commissioning and testing and all costs of Administration of Contract, Insurance Premium, Banker's charges for guarantees, cost of storage, loading-unloading and handling of materials and for any road transport which the contractor may use for carriage of materials to his depot and the site of work. The prices shall include the cost of works and adjustments necessary to be done by the contractor during or after tests carried out by the purchaser.
- 5.38.4 While the price quoted in the contract are inclusive of GST levied by any statutory authority, the purchaser shall make any deduction toward sales tax on works contract if statutorily required to do so. The deducted sales tax on works contract shall be remitted to the concerned sales tax authority and the purchaser shall in no way be responsible for any disputes between the sales tax authorities and the contractor in this regard.
- 5.38.5 All taxes, duties and levies (Including Octroi etc.) arising out of the transaction between the contractor and his sub-contractor/supplier for this work will be included in the rates quoted by the contractor in the relevant Schedule. The rates are all inclusive of taxes but the tenderer has to submit the breakup of all taxes as per Form no 16 annexed with the Tender Document.
- 5.38.6 Arrangement for permits/license for materials will not be made by the RailTel or any assistance given. The Contractor will have to make his own arrangement.
- 5.38.7 The imposition of any new tax and/or increase in the aforesaid taxes, duties levies (including fresh imposition of any other Tax like Goods and Service Tax subsuming the indirect taxes like excise,VAT, Service Tax etc), after the last stipulated date for the receipt of tender including extensions if any and the bidder thereupon necessarily and properly pays such taxes/levies/cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of Railtel attributable to delay in execution of work within the control of bidder. The bidder shall, within a period of 30 days of the imposition of any such tax or levy or cess, give a written notice thereof to Railtel that the same is given pursuant to this condition, together with all necessary information including details of input credit relating thereto. In the event of non-payment/default in payment of any of the above taxes, Railtel reserves the right to with-hold the dues/payments of bidder and make payment to local/state/Central Government authorities as may be applicable.
- 5.38.8 After imposition of GST as explained in clause 38.8 above, bidder shall issue proper invoice to Railtel for availing input credit of CGST/SGST/IGST. GST will not be reimbursed in the absence of proper invoice for availing input tax credit.
- 5.38.9 The break-up of price of each item of SOR in terms of basic Unit price, Excise duty, Sales Tax,Freight, Custom Duty, Forwarding, Packing, Insurance and any other Levies/Charges already paid or payable by the bidder shall be quoted in the SOR. Bidder has to quote all-inclusive rates (with tax break-up). Even after the introduction of GST, all inclusive unit rates

payable will not exceed the all-inclusive rates offered by the bidder. However if rates are reduced in the current tax structure the bidder has to pass on the benefit to Railtel

5.39. MEASUREMENT OF WORKS

Deleted.

5.40. TERMS OF PAYMENT

5.40.1.1 Payment:-Ref para 4.46. of chapter 4.

5.40.1.2 Rounding off amounts:-Ref para 4.46. of chapter 4.

5.40.1.3 Deleted.

5.40.1.4 The tenderer should have Registration No. for Goods & Service Tax.

5.40.1.5 GST related clauses

- a. The price quoted in the offer should be firm, fixed indicating the breakup and inclusive of all taxes & duties like import, custom, Anti Dumping, CGST, SGST, IGST, UTGST etc. The offer should be inclusive of packing, forwarding, freight upto destination, insurance charges
- b. Bidder shall issue valid tax invoice to RailTel for availing proper credit of CGST/SGST/IGST/UTGST incase of award of contract. GST will not be reimbursed in the absence of valid tax invoice
- c. For all the taxable supplies made by the vendor, the vendor shall furnish all the details of such taxable supplies in the relevant returns to be filed under GST Act
- d. If the vendor fails to comply with any of the above, the vendor shall pay to purchaser any expense, interest, penalty as applicable under the GST Act
- e. In case of incorrect reporting of the supply made by the vendor in the relevant return, leading to disallowance of input credit to purchaser, the vendor shall be liable to pay applicable interest under the GST Act to the credit of purchaser.
- f. Tenderer shall quote all inclusive rates, but there shall be break up of basic price and all type of applicable taxes such as SGST/CGST/IGST/UT GST along with respective HSN/SAC Code under GST Law (including tax under reverse charges payable by the recipient).
- g. Wherever the law makes it statutory for the Purchaser to deduct any amount towards GST at sources, the same will be deducted and remitted to the concerned authority
- h. In regards to works contract, the tenderer should have registration no. for GST in respective state where work is to be executed and shall furnish GST registration certificate along with Tender
- i. The imposition of any new tax and/or increase in the aforesaid taxes, duties levies, after the last stipulated date for the receipt of tender of tender including extensions if any and the bidder there upon necessarily and properly pays such taxes/levies/cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of RailTel attributable to delay in execution of work within the control of the bidder. The bidder shall, within a period of 30 days of the imposition of any such tax or levy or cess, give a written notice thereof to RailTel that the same is given pursuant to this condition, together with all necessary information including details of input credit relating thereto. In the event of non-payment/default in payment of any of the above taxes, RailTel reserves the right to withhold the dues/payments of bidder and make payment to State/Central Government authorities as may be applicable. However, if the rates are reduced after the last stipulated date for receipt of tender, bidder has to pass on the benefits to RailTel
- j. "In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the RailTel shall deduct the applicable GST from his /their bills under reverse charge mechanism(RCM) and deposit the same to the concerned Tax

Authority”.

k. IN CASE OF IMPORTED EQUIPMENT::Anti-Dumping duty if applicable on the equipment proposed to be supplied by OEM/Tenderer as per extant instructions of Ministry of commerce/Finance Government of India, has to be borne by tenderer and shall be deducted from the amount payable to bidder at the timing of payment to the firm, if this duty amount is paid to custom authority by RailTel

l. Evaluation criteria: Inter se position of the offers will be determined on total unit rate on CIP destination basis which will include basic rate, custom duty, CGST, SGST, IGST, GST, freight, insurance and any other charge or cost quoted by tenderer, including GST payable.

5.40.2 Manner of payment: - Ref para 4.46 of chapter 4.

5.40.3 PAYMENT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF EQUIPMENTS & MATERIALS -

5.40.3.1 **90%** on supply, installation & commissioning of materials at site duly inspected by the nominated Inspection Authority and accompanied with the following documents:

- a) Original Inspection certificate issued by Inspecting officer.
- b) Challan/ Invoice in duplicate.
- c) A certificate that the materials supplied are as per the contract and the amount claimed in the invoice is correct as per terms of the contract.
- d) All on account payments shall be covered by a standing indemnity bond in the approved form (see form No.6).
- e) Submission of Performance Bank Guarantee as per Para 4.16.2.
- f) Warranty certificate as per warranty clause 5.29. subject

to recoveries of liquidated damages, if any,

5.40.3.2 The balance **10%** on the basis of Provisional Acceptance Certificate as per Para 5.26 of Tender document along with a clear 'No Claim Certificate' from the contractor.

5.40.4 **Payment for CAMC:** Payment for CAMC will be made quarterly after submission of inspection/maintenance report duly signed by contractors and RailTel's nominated official along with contractor's performance report by RailTel's official.
Bill's amount are subjected to rounding off as per clause 4.46.2.

5.41 Deleted.

5.42 FINAL SETTLEMENT
Refer para 4.16 and 5.40

5.43 DEDUCTION FROM PAYMENT BILLS

- (i) All costs, damages or expenses, which RailTel may have been paid or incurred which under the provisions of contract are Contractor's obligations will be deducted by RailTel from progress payment Bills/Invoice of Contractor, as and when it is understood that such an expense has been incurred or paid for.
- (ii) All such claims of RailTel shall, however, be duly supported by appropriate and certified vouchers, receipts or explanations as are available to enable the Contractor to identify such claims.

5.45 TAXES

5.45.1 The Contractor and all personnel employed by him shall pay such taxes like Income Tax as are payable under statutory laws of India and the Purchaser **WILL NOT ACCEPT** any liability for the same.

5.45.2 Deduction of Income Tax at source as per provisions of Finance Act and Income Tax in force shall be made from the Contractor/Sub-Contractor and the amount so deducted may be credited to the Central Government.

5.45.3 Wherever the law makes it statutory for the Purchaser to deduct any amount towards GST on Works Contract, the same will be deducted and remitted to the concerned authority.

5.46 MOBILIZATION ADVANCE

No mobilization advance will be given to the contractor.

5.47 INSURANCE

5.47.1 The Contractor shall take out and keep in force a policy or policies of insurance against all liabilities of the Contractor or the Purchaser at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site. The Contractor shall also take out and keep in force a policy or policies of Insurance against all recognized risks to their offices and depots. Such insurance shall in all respects be to the approval of the Purchaser and if he so requires in his name.

5.47.2 INSURANCE OF MATERIALS & INSTALLATIONS

The Contractor shall take out and keep in force a Policy or policies of Insurance for all materials including materials/equipments supplied by RailTel irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such works are provisionally handed over to the RailTel. For this purpose, the works are deemed to have been provisionally handed over when provisional acceptance certificate is issued for the locations.

5.47.3 The Contractor shall not be liable for losses/damages to the materials either used up in the portion of work done or his material kept for use at site, in consequence of Mutiny, or other similar causes over which the Contractor has no control and which cannot be insured. Such losses or damages shall be the liability of the Purchaser and if required by the Purchaser, be made good by the contractor at the cost of the Purchaser.

5.47.4 The Contractor should, however, insure the stores brought to site, against risks in consequence of war and invasion, as required under the Emergency Risk (Goods) Insurance Act enforce from time to time.

5.47.5 It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favor of RailTel . The contractor shall keep the policy/policies current till the installations are provisionally handed over to the purchaser. It may also be noted that in the event of contractor's failure to keep the policy current and alive, renewal of policy will be done by purchaser for which the cost of the premium plus 20% of premium shall be

recovered from the contractor.

- 5.47.6 For the purpose of enabling the contractor to take the insurance cover in connection with this contract, the purchaser's Engineer will advise the approximate price of all the RailTel supply materials to the Contractor.

5.48. FORCE MAJEURE CLAUSE

- 5.48.1 Refer para 4.11 of chapter -4.

- 5.48.2 Refer para 4.17 of chapter-4.

5.49 SETTLEMENT OF DISPUTE AND ARBITRATION

- (1) **Right of RailTel to determine the contract:** - The RailTel shall be entitled to determine and terminate the contract at any time should, in the RailTel's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons therefore shall be conclusive evidence thereof.
- (2) **Payment on determination of contract:** - Should the contract be determined under sub Para 5.49(1) of tender document of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the RailTel shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The RailTel's decision on the necessity and propriety of such expenditure shall be final and conclusive.
- (3) The Contractor shall have no claim to any payment of compensation or otherwise .Howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

CHAPTER – 6

FORMS

OF

TENDER

CHAPTER – 6

FORMS OF TENDER

Form No. 1	:	Offer Letter
Form No. 2	:	Qualifying Criteria / User's Certificate
Form No. 3	:	Agreement
Form No. 4	:	Proforma for Performance Guarantee Bond Deposit
Form No. 5	:	Statement of Deviations
Form No. 6	:	Standing Indemnity Bond for Payments and Stores Supplied by RailTel
Form No. 7	:	System performance guarantee.
Form No. 8	:	Not used
Form No. 9	:	Works in hand
Form No. 10	:	Acknowledgement of receipt of materials from RailTel
Form No. 11	:	Extension of period of completion of work
Form No. 12	:	Not used
Form No. 13	:	Qualification Experience
Form No. 14	:	Deleted
Form No. 15	:	RTGS format.
Form No.16	:	Tax Breakup Format

Form No.1

OFFER LETTER

From:

Date:

To:

Executive Director,
RailTel Corporation of India Limited,
Northern Region,
Delhi.

Sub: Design, Supply, Installation, Testing, Commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi-110002

Ref: Tender Notice No.dated

I/We the undersigned hereby offer to execute the agreement for the above work within fifteen days from the date of issue of letter of acceptance of the tender in strict compliance within the provision detailed in the tender paper attached.

I/We agree that this tender shall not be restricted or withdrawn and shall remain opened for acceptance for and during the period of ninety days from the date of opening of the tender.

I/We fully understand the terms and conditions as contained in the tender paper and we agree that the same shall apply to My/Our tender and I/We shall be bound by them.

Earnest money deposit Demand Draft/Pay Order/Banker's Cheque No.....Dated for `.....(Rupees only) drawn on (bank) in favour of "RailTel Corporation of India Ltd.", payable at is enclosed.

The full value of the earnest money shall be forfeited without prejudice to any other right or remedies if:

- (i) If we do not submit the Performance Bank Guarantee/Security Deposit in the event the LOA for any section is awarded to us, within stipulated time.
- (ii) I/We do not execute the contract document within 2 days after the receipt of notice by the RailTel Corporation that such documents are ready.
- (iii) I/We do not commence work within 7 Days from the date of issue of letter of acceptance or as per Clause 4.19 of the contract document.
- (iv) If we withdraw our offer after opening of the tender.

(v) If we do not accept the order in the event the same is awarded to us.

Until a formal agreement is prepared and executed, submission of this offer letter shall constitute a binding contract between us subject to modification as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer.

I/We hereby agree to execute the work and place our teams as required within the scheduled date mentioned above. In the event of shortcomings in the provision of equipment/placement of team within the stipulated date, RailTel shall be at liberty to impose penalty, if any, as has been stipulated in the tender document.

Yours Sincerely,

Signature & Seal of the Tenderer

Place: -

Date: -

Witnessed by:

1.	Signature:	2.	Signature:
	Name:		Name:
	Address:		Address:

Form No. 2

QUALIFYING CRITERIA

USER's CERTIFICATE

Name of the Firm

Contract No. & date

Scope of Work

**Contract Amount (in
Indian Rupees)**

**Completion Period as per
original contract**

**Completion Period with
extension**

Date of Commencement

**Actual date of Successful
Completion**

Present working status

Name :
Dated :

Designation :

Signature of the Contractor with
Company Seal

Note: The relevant User's certificate to be attached.

Form No. 3

AGREEMENT

(CA No. _____) for Design, Supply, Installation, Testing, Commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi-110002

This AGREEMENT is made at Delhi on this _____ day of _____ two thousand and Thirteen, by and between RailTel Corporation of India Limited. (A Govt. of India Undertaking) having its Corporate office at 143, Institutional Area, Sector-44, Gurugram - 122003, and 6th floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053 acting in the premises through Executive Director /Northern Region (hereinafter referred to as 'RailTel', which expression should unless repugnant to the context or meaning thereof include its successors and permitted assigns) of the one part;

And _____ having its registered office at _____ acting in the premises through _____ (hereafter referred to as "Contractor", which expression should unless repugnant to the context or meaning thereof include its successor and permitted assigns) of the other part.

Whereas in response to a call for Tender by RailTel for the work of " Design, Supply, Installation, testing, commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel Equipment room located at RailTel at MW Building, Thomson Road, New Delhi-110002." as per tender papers at Annexure 'A' read with Corrigendum..... issued by RailTel hereto, the Contractor has submitted a Tender as per Annexure 'B' hereto AND WHEREAS the said Tender of the Contractor has been accepted for the work of "Design, Supply, Installation, testing, commissioning & CAMC of NOVEC 1230 Gaseous Fire suppression system along with Addressable Intelligent automatic fire detection and alarm system for RailTel's server room located at second floor & OFC room located at ground floor in MW building, Thomson Road, New Delhi-110002." as per copy of Letter of Acceptance of Tender No. _____ dated _____ complete with enclosures at the accepted rates and agreed deviations from tender papers as per Annexure-C hereto at contract value of _____ (Rupees _____ Only) duly accepted by the contractor.

Now this agreement witnesses that in consideration of the premises and the payment to be made by the Purchaser (RailTel) to the Contractor provided for herein, the Contractor shall supply all equipment and materials and execute and perform all works for which the said Tender of the Contractor has been accepted strictly according to the various provisions in Annexure 'B' and 'C' hereto and upon such supply, execute and performance to the satisfaction of the purchaser (RailTel) and the purchaser (RailTel) shall pay to the Contractor at the rates accepted as per the said Annexure 'C' and in terms of the provisions therein.

IN WITNESS whereof both the parties have hereunto set and subscribed their respective hands

Form No. 4

CONTRACT PERFORMANCE 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, Corporate office at 143, Institutional Area, Sector-44, Gurugram - 122003, and Northern regional Office at 6th floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053 (Herein after called the 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 RailTel Corporation of India Limited 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, on production of a Bank Guarantee for ` (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 ` 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.

We, (name of 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 as 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 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 ` only.

We, (name of 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, (name of 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 We shall be discharged from all liability under this Guarantee thereafter. We, (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 or 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).

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

NOT WITH STANDING ANYTHING CONTAINED HEREIN ABOVE

- (i) The liability of the surety under his Bank Guarantee shall not exceed `
(Rupees only).
- (ii) This Bank guarantee shall be valid upto
- (iii) We are liable to pay the guaranteed amount or nay part thereof under this Bank Guarantee only and only if you serves upon the bank, written claim or demand on or before

Dated theday of 2018

for
(Indicate the name of the Bank)

Witness :

Signature :
Name :

Signature :
Name :

NOTE: The Guarantee shall be valid for a period of 60 days after the expiry of the warranty period of the work as per Clause 3.17 of chapter 3.

Form No. 5

STATEMENT OF DEVIATIONS

PROFORMA FOR STATEMENT OF DEVIATIONS

1. The following are the particulars of deviations from Preamble, requirement of the Instructions to Tenderers and Conditions of Tendering and Special conditions of Contract.

Preamble (Chapter 1)

<u>Clause</u>	<u>Deviation</u>	<u>Remarks (including justification)</u>
---------------	------------------	--

Instructions to Tenderers and Conditions of Tendering (Chapter 3)

<u>Clause</u>	<u>Deviation</u>	<u>Remarks (including justification)</u>
---------------	------------------	--

Special Conditions of Contract (Chapter 5)

<u>Clause</u>	<u>Deviation</u>	<u>Remarks (including justification)</u>
---------------	------------------	--

2. The following are the particulars of deviations from requirement of the **Technical specifications (Chapter 7)**

<u>Clause</u>	<u>Deviation</u>	<u>Remarks (including justification)</u>
---------------	------------------	--

Note: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "no deviations".

SIGNATURE AND SEAL
OF TENDERER

FORM - 6

STANDING INDEMNITY BOND

(For on Account Payments and Stores supplied by RailTel)

(On Stamp paper of Requisite Value)

We, M/s _____ hereby undertake that we hold at our Stores Depot/s at _____ for and on behalf of RailTel Corporation of India Limited in the premises through Executive Director or his successor hereinafter referred to as "the Purchaser" all materials for which 'On Account' payments have been made to us against the Contract for ----- vide letter of Acceptance of Tender No.

_____ and the materials handed over to us by the Purchaser for all purpose of execution of the said Contract, until such time the materials are duly erected or otherwise handed over to him.

We shall be entirely responsible for the safe custody and protection of said materials against all risk till they are duly delivered as erected equipment to the purchaser or as he may direct otherwise and shall indemnify the Purchaser against any loss, damage or deterioration whatsoever in respect of the said materials while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any engineer authorized by the Director / Projects (whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the purchaser shall be entitled to recover from us the full cost as per prices included in the Contract (as applicable) and also compensation for such loss or damage, if any, along with the amount to be refunded without prejudice to any other remedies available to his by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

Dated this _____ day of _____ 2018

for and on behalf of
M/s _____ (Contractor)

Signature of witness

Name and witness in Block letters

Address

FORM – 7

SYSTEM PERFORMANCE GUARANTEE

PROFORMA FOR THE SYSTEM PERFORMANCE GUARANTEE

To

The Executive Director/RCIL, Delhi

I / We hereby guarantee that the design on the basis of which we have submitted our tender no.

..... has been carefully made to conform to the end objectives in the tender documents and to technical specification therein. We further guarantee that in the event of the performance of the system, when installed, not complying with the end objectives or with the specifications contained in the tender documents, we shall provide further inputs to enable the RailTel to realize the end objectives contained in these documents without any additional payment for any additional equipment which may be required in this regard. We further guarantee that all the expenses for providing the additional inputs under the System Guarantee will be borne by us. We further guarantee that these additional inputs will be provided by us to make the system workable within 1 month from the date on which this guarantee is invoked by the Purchaser. The guarantee is valid for a period of one year from the date of commissioning of the system.

(Signature of Firm's Authorized Officer)

Seal

Signature of witness:

1.

2.

FORM - 9

WORKS IN HAND

SI No	System & Name of the Project	Party's name & address for whom the work is being done	Total Contract Value (₹)	Schedule period of execution (in months)	%age progress in terms of work already done	Likely date of Completion	No. of extensions granted	Payments received till date (₹)	Re-marks

रेलटेल
RAILTEL

A Government of India
Undertaking

FORM – 10

**ACKNOWLEDGMENT
FOR RECEIVING MATERIALS FROM RAILTEL**

Station:

Date:

Sub: Receipt of Material from RailTel

It is hereby acknowledged that the following materials have been received in full and good condition by me on _____ At _____ for the work under the Agreement no. dated

Sr. No.	Description of Material (Meter/No.)	Quantity if any	Remarks
---------	--	--------------------	---------

Witnessed by:

(Signature of Engineer's
Representative with
Designation)

(Signature of Contractor
or Contractor's
Representative)

FORM - 11

**EXTENSION OF PERIOD OF COMPLETION OF WORK
ON CONTRACTOR'S ACCOUNT**

No.

Date:

To,

.....

.....

Sub: (i) (Name of Work)
(ii) Acceptance Letter No.
(iii) Undertaking / Agreement No.

Ref:(Quote specific application of the Contractor for extension to date, if received).

Dear Sir,

The stipulated date for completion of the work mentioned above isfrom the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or However, the work was not completed on this date)

Expecting that you may be able to complete the work if some time is given the Executive Director, RailTel Corporation of India Limited, Delhi although not bound to do so, hereby extends the time for completion from to

Please note that an amount equal to 0.5% of the total value of the contract per week or part thereof (rounded off to the nearest whole number) subject to a maximum of 10% of the total contract value of the works as a recovery for delay in the completion of the work after the expiry of (1) will be recovered from as mentioned in Para 5.35 of the special conditions of contract for the extended period notwithstanding the grant of this extension. You may proceed with the work accordingly.

The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.

Please intimate within a week of the receipt of this letter your acceptance of the extension on the conditions stated above.

Please note that in the event of declining to accept the extension on the above said conditions or, in the event of your failure after accepting or acting up to this extension to complete the work by (2)here mention the extended date), further action will be taken in terms of relevant Para of special conditions of contract.

Yours faithfully,
For& on behalf of RailTel Corporation of India Limited

Note:

1. Give here the stipulated date for completion without any penalty fixed earlier. 2. Here mention the extended date.

Form No. 13

QUALIFICATION & EXPERIENCE

Details of works executed and under execution by Tenderer during the last 3 years (current year and last three financial years) should be furnished in the following format.

SI No	Name of Project & Description of work	Party's name & address for whom the work was done	Total Value of The Contract (')	Date of Award of Work and schedule Period of execution (in months)	Date of completion and actual period of Execution (in months)	Total contractual payment received	Remarks

Note: A certificate from the organization for whom the work was executed should be submitted to indicate that the contract was satisfactorily executed.

(Signature and Seal of the Manufacturer/Contractor)

Form -15

The Joint General Manager (Finance)
RailTel Corporation of India Ltd. (Regional Office)
6th Floor, III Block, Delhi Technology Park,
Shastri Park, Delhi-110053.

Sub. : Option for Payment through RTGS/NEFT

Sir,

You are requested to remit the payment due to us through RTGS/NEFT into our Current Account.

The detail required duly verified by our bank for Online payment is provided here under for needful please.

DETAIL REQUIRED FOR PAYMENT THROUGH RTGS/NEFT

1.	Beneficiary Name :	M/s
2.	Beneficiary Address :	
3.	PAN No.	
4.	Bank A/c No. :	
5.	Name of Bank :	
6.	Bank Address: Branch	
7.	Branch Id Code :	
8.	Current Account No. :	
9.	RTGS / IFSC Code :	
10.	NEFT/ IFSC Code :	

11 .	MICR no.	

I do hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, RailTel will not be held responsible. Further, I undertake that till we request a change, paying authority may kindly continue to make the payments in our account as per above detail.

For
payments

Authorised Signatory

Verified above Bank Particulars for Online

Bank's Authorised Signatory

Form -16

TAX BREAKUP FORMAT FOR SOR

S N	Item	Unit of Mea- sure	Qty	Unit Price (Excl d Tax)	Tax Details								Total Valu e of Tax (e+f+ g+h)	Unit Price (Inclu ding Tax) (d+i)	Total Cost (c X j)			
					Tax Na me	%	Va- lue	Tax Na me	%	Va- lue	Tax Na me	%				Va- lue		
a	b	c	d			e			F			g			H	I	j	k
1																		
2																		
3																		
4																		

Total Cost of
Schedule

TIN No.

PAN No.

GST No.

CHAPTER-7

GENERAL SCHEME, DESIGN REQUIREMENT & TECHNICAL SPECIFICATION

1. GENERAL SCHEME OF FIRE DETECTION & SUPPRESSION SYSTEM

The contractor shall design, supply, install, test and put in operation NOVEC 1230 based fire suppression system at RailTel's server room located at second floor & OFC room located at ground floor in MW building. The fire suppression system shall include CCOE approved seamless cylinders, discharge valve, solenoid & pneumatic actuator, discharge pipe, non-return valve and all other accessories to provide a complete operation system meeting the applicable requirements of latest version of NFPA 2001 standards and installed in compliance with all applicable requirements of the local code and standards.

The contractor shall design, supply install, test and put in operation a microprocessor based addressable intelligent analogue fire detection system to monitor both the risks RailTel's server room located at second floor & OFC room, UPS room located at ground floor in MW building. The fire detection system shall include microprocessor based addressable intelligent fire alarm panel, addressable intelligent analogue multi sensor type detector, addressable intelligent manual release switches, addressable intelligent abort switches, active display units, cable hardware and all other accessories required to provide the complete operation system meeting applicable requirement of NFPA 70 and 72 and installed in compliance with all applicable requirements of the local codes and standards.

The system designed should be based on the specifications contained herein latest edition of NFPA 2001, ISO 14520, NFPA 72 and in accordance with the requirement specified in the design manual of the manufactures as well as requirements of all applicable local codes and standards. The contractor shall confirm compliance to above along with their bid.

2. Design Requirements, Main Equipments and Specifications

2.1 Fire Alarm Control Panel (FACP):

2.1.1 General:

The main FACP Central Console shall contain a microprocessor based Central Processing Unit (CPU). The CPU shall communicate with and control the following types of equipment used to make up the system: analogue addressable multi sensor type detectors, addressable modules, panel modules including initiating circuits, control circuits, and notification appliance circuits, local and remote operator terminals, annunciators, and other system controlled devices.

The Tenderer shall undertake the responsibility of the complete installation, commissioning, user trials, training and maintenance of the system as required. The Tenderer shall take all responsibility for preparation and installation of system software into the FACP. The software shall be such so as to be easily operated by the Client's Personnel and secured against software errors, ability to be upgraded so as to incorporate more features later.

The panel shall also have automatic dialler with speech processor to transmit fire message to select telephone numbers in case of fire.

The fire alarm control panel shall be modular and shall confirm to UL / LPCB / VdS standards. The control panel shall be capable of expansion via Loop cards. Each Loop shall support a minimum of 125 intelligent multi sensor addressable detectors / devices. The System shall be fail safe and adequate safe guards should be under taken that in the event of a failure of a part of the System, say a loop card or CPU; it shall not handicap the complete System. The Loop Control Module shall contain its own microprocessor and shall be capable of operating in a local / degrade mode (any addressable device input shall be capable of activating any or all addressable device outputs in that loop) in the unlikely event of a failure in the main CPU.

The logic circuitry shall be based on high noise immunity solid-state hardware. All addressable units shall be connected to the FACP through the Loop Cards and shall be addressed through individual numbers. The FACP shall be able to obtain digital value for all detectors in the circuit through a pulsed digitalized current data. The FACP shall be able to analyze all inputs from all addressable units, and through its own software and ambient level screening the FACP shall be able to identify fire, possible fire or fault conditions. The unit supervision shall be dynamic and continuous.

The FACP shall also give adequate warning signal whenever there is dust accumulation in detectors, and up to the point of its replacement, it should be possible to change the level of ambient alarm calibration condition either by the use of software program operable by the owner or by resetting the detector.

Short / Open circuit units shall also be reported at the FACP In such cases, the system through the use of fault isolators shall be able to isolate that segment between the two fault isolators. The missing Detectors/Devices shall also be reported at the FACP with identification of the location.

The Tenderer shall also undertake to trip the Precision Air Conditioning Package Units from the Fire Alarm Panel through the use of Addressable Output Modules and necessary AC/DC relays, activated by the fire signal of specified detectors and Input Modules for monitoring contacts from Fire exit doors.

The FACP shall also be able to discriminate between false alarms and fire conditions, as well as priority selection of alarm in case alarm activates in two or more remotely located units simultaneously. In such cases, the Manual Call Points shall have the highest priority.

The FACP shall have its own Battery Backup of a minimum of 24 hours in normal run and then half an hour in alarm condition. The Battery shall be of sealed lead acid rechargeable maintenance free type. Necessary battery calculations for the system shall be provided along with the bid.

It shall be able to withstand temperature variations from 00 centigrade to 490 centigrade. Further, Relative Humidity (non-condensing type) up to 93% shall not hamper its performance. The voltage rating shall be from 15V DC to 31V DC, though the voltage may be change depending upon the working voltages of a proprietary FACP.

The FACP shall also capable of repeating all the events & messages to an Active Repeater Panel if required in the future.

The Fire Alarm Control Panel shall include a full-featured operator interface control for the field programming and control of the fire alarm system. All programming or editing of the existing program in the system shall be achieved without special equipment and without interrupting the alarm monitoring functions of the fire alarm control panel.

2.2. Panel Controls & Indication:

- 2.2.1 Display & Indication:** The backlit LCD display shall at least be from 80 to 160 characters that indicate all information associated with the fire alarm condition, including the type of alarm point and its location within the protected premises. It shall also provide Light-Emitting-Diodes (LED's), that indicate the status of the following minimum system parameters: POWER STATUS, TEST STATUS, FIRE ALARM, FAULT, CPU FAILURE, POINTS DISABLED etc.,
- 2.2.2 Alarm Acknowledge:** Activation of the control panel acknowledges function in response to new alarms and/or troubles shall silence the local panel piezo electric signal and the associated LED on the panel shall be turned ON.
- 2.2.3 Signal Silence:** Signal Silence function shall cause all programmed alarm notification appliances and relays to return to the normal condition. The selection of notification circuits and relays that are silence able by this switch shall be fully field programmable within the confines of all applicable standards.
- 2.2.4 System Reset:** Depression of System Reset switch shall cause all electronically latched initiating devices to return to their normal condition and the system reset operation starts. The associated Yellow LED shall flash during this operation to inform the user of the progress status of the reset cycle. The LED shall flash fast during the multisensor detectors power down sequence, then it shall flash slowly during the restart phase, and

shall illuminate steadily for the restoral phase. The LED shall go out completely when the system is back to normal mode.

2.2.5 Evacuation/ Fire drill: Depression of the Drill switch shall activate all programmed notification appliance circuits. The drill function shall latch until the panel is silenced or reset.

2.2.6 Lamp Test: The Lamp Test function shall activate all local system LEDs, light each segment of the liquid crystal display to check all the components are working OK.

2.3 Panel Functions:

The FACP shall minimum perform the following functions Supervise and monitor all intelligent addressable detectors and monitor modules connected to the system for normal, trouble and alarm conditions. System response to any alarm condition must occur within 3 seconds, regardless of the size and the complexity of the installed system. Supervise all initiating signaling and notification circuits throughout the facility by way of connection to monitor and control modules. Detect the activation of any initiating device and the location of the alarm condition. Operate all notification appliances and auxiliary devices as programmed. Visually and audibly annunciate any trouble, supervisory, security or alarm condition on operator's terminals, panel display, and annunciators.

Upon alarm activation of any area multi sensor detector, manual pull station, the following functions shall automatically occur:

The internal audible device shall sound at the FACP.

The LCD Display shall indicate all applicable information associated with the alarm condition including: zone, device type, device location and time/date.

Any remote or local annunciation LCD/LED's associated with the alarm zone shall be illuminated.

The following audio messages and actions shall occur simultaneously:

A pre evacuation message shall be sounded on all floors (zones), Staircases, Lifts. It is the intent of this message to advise occupants hearing this message that they are near danger and await further instructions for leaving the building via the stairs (nearest exit).

Activate visual strobes /Sounders based on programmed sequence. The visual strobe shall continue to flash or the sounders will hoot until the system has been reset.

An alert message shall be transmitted through a telephone line on a preprogrammed telephone numbers.

Activate automatic multi sensor detectors control sequences such as PAC Units tripping.

All automatic events programmed to the alarm point shall be executed and the associated outputs activated.

2.4 Panel Features:

The system shall be fully supervised for all fault conditions with distinctive alarm operated for fault and fire conditions. Test buttons and software features shall be provided to test the electronic circuits and detector health. Activate automatic multi sensor detectors control sequences such as PAC Units tripping.

All automatic events programmed to the alarm point shall be executed and the associated outputs activated.

- 2.4.1 System Programming:** Advanced Windows based software shall be used to configure the system during system start-up or system commissioning. Time and Date Stamps of all modifications made to the program must be included to allow full retention of all previous program version data. All System operational software is to be stored in FLASH memory. Control Panel disassembly and replacement of electronic components of any kind shall not be required in order to upgrade the operations of the installed system to conform to future application code and operating system changes. It shall have the ability to download all system applications programs and "firmware" from a computer through a single point into the FACP.

The panel shall provide means for all SLC devices on any SLC loop to be auto programmed into the system by specific address. The system shall recognize specific device type ID's and associate that ID with the corresponding address of the device.

- 2.4.2 Event Buffer:** The panel shall maintain a history file of at least the last 3000 events, each with a time and date stamp. History events shall include all alarms, troubles, operator actions, and programming entries.

- 2.4.3 Early warning capability:** To obtain early warning of incipient or potential fire conditions, the system shall support a programmable option to determine system response to real-time detector sensing values above the programmed setting.

It shall be possible to set individual multisensor detectors for pre-programmed pre-alarm thresholds. If the individual threshold is reached, the pre-alarm condition shall be activated and an alert displayed on the panel.

When the detector reaches a level exceeding the pre-programmed level, the control panel shall indicate an action condition. Sounder bases installed with either heat or smoke detectors shall automatically activate on action Pre-Alarm level, with general evacuation on alarm level.

- 2.4.4 Alarm verification delay:** The FACP shall provide means to cause alarm signals to only sound in specific areas with a delay of the alarm after start of alarm processing. If the alarm is not acknowledged within programmed delay, all local and remote outputs shall automatically activate immediately. The control panel shall ignore the alarm verification timer if another alarm is detected during the verification period.

- 2.4.5 Enable/ Disable points:** The FACP shall allow the operator to restore a disabled point (device) in the system, allowing that point (device) to operate as originally intended by the application program of the system. Additionally, the system shall allow the operator to

restore any group function, function, Panel, system module, "software – defined zone", operator control, or time control function.

The FACP shall allow the operator to disable any point (device) in the system, inhibiting that point (device) from operating as originally intended by the application program of the system.

Additionally, the system shall allow the operator to disable any group function, function, Panel, system module, "software - defined zone", operator control, or time control function within the system.

- 2.4.6 Check/Alter parameters:** The system shall allow the operator to manually turn on any system output point, or system function. Alter Multisensor Detector sensitivity, message routing within the system shall be modifiable with this simple command from the control panel.

The system shall allow the operator to restore the primary (application program defined) operation to the Multisensor Detector sensitivity and the message routing functions with this simple command from the control panel.

The system shall allow the operator to manually command and control relays. Relays shall be able to be commanded to "Latch", to energize as a "High Priority", or as a "Low Priority", to "Energize", or to "De-Energize".

AHU Shutdown The panel shall be capable of shutting down the Precision Air Conditioning Package Units (PAC) in the event of Fire Alarm. It shall be possible to program the shut on zone basis

- 2.4.7 Sensitivity Adjust:** The system shall provide Automatic Detector Sensitivity Adjust based on Day/Night schedules.

- 2.4.8 Environment Drift Compensation:** The system shall automatically compensate for the drift in the sensitivity that can occur due to dust & environment changes. Environmental compensation shall mean that the sensing element adapts to long-term changes caused by dirt, humidity, aging etc. It shall even compensate for small amounts of normal ambient smoke. The detector shall periodically adjust and updates the sensitivity (% obscuration) baseline for its photoelectric sensing element. Periodically this information shall be written to its permanent memory. When the detector accumulates dust in the chamber above the allowed limit, the control panel shall indicate a maintenance urgent warning.

2.5 System Status Display:

The system shall allow the operator to determine the status of individual system components, including active points, disabled points, and active points by panel. The LCD shall show the system time, and the number of active points and disabled points in the system in this section of the LCD Display. The LCD shall have minimum 80 to 160 characters display. The LCD shall show the first active event of the highest priority. The text shall show the sequence number in which the displayed event was received, as well as its event type. It shall also display an identification message related to the displayed event.

The LCD shall show the total number of active events in the system, by event type.

There shall be at least three different System Event Types that shall be displayed, "Alarm Events", "Supervisory Events" and "Active Trouble Events". The Main LCD shall include queues for each of the System Event Types. The Main LCD shall allow the operator to access to the System Status information contained within those queues by pressing an associated select switch. Whenever there is an unacknowledged event in any of the System Event queues, the associated Status LED shall flash.

Viewing each event listed in a queue shall acknowledge all events in that queue, and shall cause the associated LED to illuminate steady.

2.5.1 Passwords and Users: The system shall support at least two password levels, master and user. Passwords shall be available, each of which may be assigned access to the programming change menus, the alter status menus, or both. Only the master password shall allow access to password change screens.

2.5.2 Report Generation capability: The system shall have the capability to connect to a printer to print at least the following:

It shall give a detailed description of the status of certain system parameters for corrective action, or for preventative maintenance programs. The system shall provide these reports via the Main LCD, and shall be capable of being printed on any of the connected system printers.

The system shall provide a report that gives a sensitivity listing of all detectors that have less than 75% environmental compensation remaining.

The system shall provide a report that provides a sensitivity listing of any particular detector or all detectors

The system shall provide a listing of all of the firmware revision listings for all of the ` installed network components in the system.

2.5.3 One-Man Walk Test: The system shall provide walk test for testing the entire fire alarm system. The walk test shall allow a single operator to run audible tests on the panel. When points are activated, each initiating event shall latch the input. The test shall be audible and shall be used for pull station verification, magnet activated tests on input devices, input and output device and wiring operation/verification.

2.5.4 Response based on event: The panel software functions shall provide means to program a variety of output responses based on various initiating events. The system shall support at least 500 general-purpose software zones for linking inputs to outputs. When an input device activates, any zone programmed into that device's zone map will be active and any output device.

2.5.5 Maintenance Menu: The Main LCD in the FACP shall also allow the System Operator to access system maintenance functions through a multi level password system.

- 2.5.6 Enclosures:** The control panel shall be housed in cabinet suitable for surface or semi-flush mounting. The cabinet and front shall be corrosion protected, given a rust-resistant prime coat, and manufacturer's standard finish.

The back box and door shall be constructed of steel with provisions for electrical conduit connections into the sides and top. The door shall provide a key lock and shall include a glass or other transparent opening for viewing of all indicators. For convenience, the door may be site configured for either right or left hand hinging.

- 2.5.7 Power Supply:** The Addressable Main / auxiliary Power Supply shall operate on 240 VAC, 50 Hz, and shall provide all necessary power for the FACP and the notification appliances.

The Addressable Main Power Supply shall also incorporate a battery charger for 24 hours of standby power for normal working & another ½-hour in alarm condition using dual-rate charging techniques for fast battery recharge. The Addressable Main Power Supply shall provide a very low frequency sweep earth detect circuit, capable of detecting earth faults. The Addressable Main Power Supply shall be power-limited per 1995 UL864 requirements.

The FACP shall have EN 54 / UL / FM / VdS / LPCB approval.

- 2.6 Detectors:**

The Detector shall be intelligent addressable type. The chamber should be easily removable for the purpose of easy maintenance. The address programming shall be done at site only.

- 2.7 Addressable Analogue Multisensor Detector:**

All Multisensor detectors shall be fitted with plug-in system type connections, from the maintenance and compatibility point of views. An alarm release will not affect a detector's good functioning. After resetting the alarm, the detector will resume operations without readjustment of any kind.

The detector shall be able to sense incipient fire by detecting the presence of visible and invisible products of combustion. The detector shall be suitable for low voltage (15 to 31V DC) two-wire supply. The detector shall be provided with Twin LED indication and the sensitivity of the detector shall not vary with change in ambient temperature, humidity, and pressure or voltage variation.

Neither, its performance shall be affected by air current up to 1.52mtr per second. The detector shall be suitably protected against dust accumulation/ ingress and it shall be free from maintenance and functionally tested at intervals. All detectors shall be identical in construction design and characteristic to facilitate easy replacement.

The Multi sensor Detector shall be Intelligent Addressable type and be able to send digital output to the FACP regarding its condition. It shall be able to communicate with the FACP by the pulses emitted from the FACP. It shall have in-built locking mechanism to check the removal and pilferage of the detector.

The base of the Detector shall be electronics free and interchangeable. The enclosure shall meet IP 42-protection grade.

It shall be able to withstand temperature variations from - 10 degree centigrade to 50 degree centigrade. Further, Relative Humidity (non-condensing type) up to 80% shall not hamper its performance. The voltage rating shall be from 15V -31V DC though the voltage may be changed depending upon the working voltages of a proprietary FACP.

The Multi sensor Detector shall have UL/FM/ VdS/ LPCB approval.

The detector shall have twin LED's and shall have 360-degree viewing angle. LED on the detector shall blink each time the sensor is scanned by the FACP. If the FACP determines that the sensor is in alarm, the FACP will command the sensor LED to remain on to indicate the same. Each sensor will be capable of being tested for alarm via command from the FACP. Each sensor shall respond to FACP scan with the information about its type for identification.

The detector shall be programmed using a hand-held programmer and address stored in a non-volatile memory within the sensor or by a decade /Rotary switch or shall be through an electronic addressing.

2.8 Addressable Manual Pull Station / Manual Call Point:

The Manual Pull Station shall be addressable type with built-in input modules to define the location. It shall be with a key operated reset lock for testing.

The device shall be of durable extruded aluminium or moulded polycarbonate LEXAN housing construction, red in colour and suitable for surface or flush mounting. The word FIRE shall appear in front of the Station in white colour. A clearly visible Single/Multi Colour LED shall be provided which shall flash while polling & shall be permanently illuminated during alarm until reset.

Activation of Manual Pull Station shall initiate operation of the alarm detection circuit. The manual station shall have normally open fire alarm and annunciator contacts and these contacts shall close on activation. Contacts shall remain closed until station is manually reset. Resetting shall be accomplished by re positioning the handle / pull station door and relocking the key lock.

The address of the Pull station shall be done through the built in DIP, Decade, Rotary switch or through electronic addressing. The Manual Call Station shall be fully addressable with its own addressable module and operated by digitized signals from the FACP. The voltage range shall be from 17V to 31V.

The operating temperature range shall be minimum from 00 degree C to 48 degree C. Relative Humidity (non condensing) range of performance parameters shall be between 0 to 95%.

The Manual Pull Station shall have UL / FM / VdS / LPCB approval.

2.9 Short Circuit Isolator:

This unit shall be placed on the loop preferably after every 20 devices and shall be able to isolate electrical short circuit in the wiring. All the other detectors shall remain functional because of the Class A wiring of the loop Isolator modules/Base shall be provided to automatically isolate wire-to-wire short circuits on an SLC Class A or Class B branch. The isolator module shall limit the number of modules or detectors that may be rendered inoperative by a short circuit fault on the SLC loop segment or branch. At least one isolator module shall be provided for each floor or protected zone of the building.

If a wire-to-wire short occurs, the isolator module / Base shall automatically open-circuit (disconnect) the SLC. When the short circuit condition is corrected, the isolator module shall automatically reconnect the isolated section.

The isolator module / Base shall not require any address setting, and its operations shall be totally automatic. It shall not be necessary to replace or reset an isolator module after its normal operation.

It shall provide a single LED that shall flash to indicate that the isolator is operational and shall illuminate steadily to indicate that a short circuit condition has been detected and isolated. The Isolator shall have UL/FM/ VdS/ LPCB approval.

2.10 Addressable control module

The addressable control module shall provide potential free changeover contacts for various applications.

The control module shall built-in LED.

The control contact rating shall be a minimum of 1 amps @ 30V DC (Resistive). The control module contact termination shall be suitable for 1.5 sq. mm cable.

The control module shall be used to trip AHU, Access control, Smoke exhaust fan, Fire exit lights, BMS, etc.

The control module can be used to drive conventional high decibel hooter, siren. The control module operating temperature shall be 0°C to 49°C.

The control module operating voltage shall be 17-28 Volt DC (DC Peak) 24 volts DC nominal.

The control module shall operate from SLC loop power. No external power/cable shall be used.

The Module shall have UL / FM / VdS / LPCB approval.

2.11 Addressable monitor module

The addressable monitor module shall monitor free changeover contacts from various applications.

The monitor module shall built-in LED.

The monitor module contact termination shall be suitable for 1.5 sq. mm cable. The monitor module operating temperature shall be -20°C to 70°C.

The monitor module operating voltage shall be 17-28 Volt DC.

The monitor module shall operate from SLC loop power supply. No external power/cable shall be used.

The Module shall have UL / FM / VdS / LPCB approval.

2.12 Power supply unit:

The 5 Amps power supply unit shall be with 24 Volts, 7Ah sealed maintenance free lead acid battery. It shall have an inbuilt trickle and boost charger. An indication shall be provided to indicate the availability of AC power source. An inbuilt buzzer shall be provided which shall indicate that the battery is in deep discharge condition.

2.13 Cables:

Cabling between UPS point to the controllers/devices shall be in the scope the IBMS Vendor. All PVC insulated copper, armoured, multi strand, FRLS, Twisted Pair, Shielded cables shall be 650V grades and shall generally conform to IS –1554 – 1988 and meet the signal-cabling requirement of the system manufacturer.

The strands of cable shall not be cut to accommodate & connect the terminals. Terminals shall have sufficient cross sectional area to take in all the strands. Cables shall be laid by skilled and experienced workers. Great care shall be taken while laying cables to avoid kinks. At all changes in directions (vertical & horizontal planes) the cables shall be bent smooth with a radius as recommended by the manufacturers.

2.14 Auto dialer System:

The auto telephone dialer shall be high quality, automatic voice message communicator. It shall be a pre recorded audio alarm message followed by an alarm triggered by any one of the pre – programmed inputs.

The auto dialer shall be connected to the nearest Fire Control Station and also to the Security room. Minimum 4 numbers of 12 digits shall be stored & minimum duration of alarm or voice message shall be 16 second. Dialing method shall be pulse or tone programmable.

2.15 Timer module

Timer module shall be provided two NO and one NC contact with timer setting for automatic operation of gas system. This module shall be operated through Fire alarm panel.

2.16 Repeater Panel

One no. of repeater panel shall be provided at security Gate or as required by Railtel.

The repeater Panel shall duplicate the entire audio-visual annunciation initiated at the main panel. The display and control functions provided at repeater shall be same as that of Main panel. The unit shall be aesthetically designed, suitable for wall I structure mounting.

2.17 Photoelectric Smoke Detectors

The detector should have twin blinking LED in normal condition and should glow steady in case of fire. Optical smoke detectors shall be analogue addressable, suitable for detection of visible products of combustion, and will be of the light scattering type using a pulsed internal infra-red LED and a silicon photodiode receiver.

The optical sensing chamber shall be configured such that the horizontal optical bench housing the LED emitter and sensor is arranged radially to detect forward scattered light.

Smoke entry points shall be protected against ingress of dust and insects by corrosion resistant gauze. Build-up of dirt or other environmental contamination in the optical chamber may cause a variation to the analogue output from the detector. The detector shall apply compensation to this variation and will record the level of compensation in non-volatile memory. When drift compensation reaches a preset level, the detector will set the drift compensation flag, which the fire alarm control panel will identify and initiate a visible signal to indicate that the detector is in need of service.

The Detector shall have UL / FM / VdS / LPCB approval.

2.18 Loop Sounder cum Strobe

Each loop sounder cum strobe shall have a different address for loop sounder and strobe to initiate audio and visual alarm separately according to site specific requirement. The conventional sounder cum strobe with control module and local power supply will not be acceptable. It should have in built isolator.

These shall have UL/ FM / VdS / LPCB / EN approval.

3.0 Technical Specification Of Integrated Gas Based Fire Suppression System

3.1 Introduction:

NOVEC 1230 (FK-5-1-12-Fluoro-ketone, Chemical Formula / Name- $\text{CF}_2\text{CF}_2\text{C}(\text{O})\text{CF}(\text{CF}_3)_2$ / Dodeca-fluoro-2-menthyl-pentan-3-one), gas based fixed total flooding type Fire extinguishing system shall be activated automatically – with manual override as well as manual emergency release capabilities – by an addressable intelligent fire detection and alarm system.

3.2 Technical Requirements:

- 3.2.1 The system flow calculations shall be carried out on UL / FM / LPCB / Vds certified software, suitable for the particular container being offered for this project. The OEM for its accuracy shall, further vet such System flow calculations carried out for this project, and only RailTel shall approve such vetted calculations.
- 3.2.2 The firm shall consider and address possible Fire hazards within the protected volume at the design stage. The delivery of the **NOVEC 1230 system** shall provide for the highest degree of protection and minimum extinguishing time. The design shall be as per latest edition of **NFPA 2001**.
- 3.2.3 Sub floor and the ceiling void to be included in the protected volume.
- 3.2.4 The **NOVEC 1230 Fire Suppression System** shall include a detection and control switch provision for both pre-alarm and automatic agent release.
- 3.2.5 All system components shall be installed in accordance with local codes. **RailTel** reserves the Exclusive Rights to unconditionally reject any and all such components, which may not be, or are suspected on the grounds of authenticity of the system components and designs.
- 3.2.6 The releasing device shall also be capable of direct mechanical actuation, providing a means of discharge in the event of total electrical malfunction.

3.3 SPECIFICATIONS:

- 3.3.1 The contractor shall Design, Supply, install, test and put in operation **NOVEC 1230 Based Fire Suppression System**. The fire suppression system shall include **CCOE (PESO) approved seamless cylinders**, discharge valve, solenoid and pneumatic actuator (as the case may be), discharge pipe, non-return valve and all other accessories required to provide a complete operation system meeting applicable requirements of **NFPA 2001 or ISO-14520** standards and installed in compliance with all applicable requirements of the local codes and standards.
- 3.3.2 The contractor shall Design, Supply, install, test and put in operation a microprocessor based addressable intelligent analogue fire detection system to monitor both the risks. The fire detection system shall include microprocessor based addressable intelligent fire alarm panel, addressable intelligent analogue multi sensor type detector, active display units, cables, hardware and all other accessories required to provide a complete

operation system meeting applicable requirements of **NFPA 72** and installed in compliance with all applicable requirements of the local codes and standards.

- 3.3.3 The systems design should be based on the specifications contained herein, **NFPA 2001, ISO 14520, NFPA 72** & in accordance with the requirements specified in the design manuals of the manufacturers as well as requirements of all applicable local codes and standards. The contractor shall confirm compliance to the above along with their bid.

3.4 NOVEC 1230 Design and Engineering:

NOVEC 1230 systems shall be designed taking the minimum design concentration of **4.7% at 21 ° C inclusive of 35% allowance considering the risk classifications as 'C' risks as per NFPA 2001 & ISO-14520 for electronic risk.**

- 3.4.1 The system design must consider the limitations caused by the void height. It should also consider temperature in the void. The vendor should clearly indicate the qty. of the gas in Kgs. to be used for the system. All voids within each hazard shall be discharged simultaneously. Each hazard shall have an independent system, unless otherwise specifically stated, when a centralized system with directional valves can be used.
- 3.4.2 **NOVEC 1230 systems** shall have a working pressure of **42 bar (600psi).**
- 3.4.3 A suitable fill density should be considered for the agent to be discharged within the specified time of **10 seconds maximum.**
- 3.4.4 The system engineering company should carry out the piping isometric design and validate the same with a hydraulic flow calculation generated by using the agent's design software having an international approval such as UL / FM / LPCB / Vds. The appropriate fill density shall be arrived at based on the same.
- 3.4.5 The design & calculation shall be checked & certified by contractor. The calculation is the only guarantee that the system will work, provided the system is installed exactly as per the design. The contractor has to take into consideration the routing available while designing the pipe network.

3.5. Authentication:

The system engineering company shall furnish the filling certificate along with the MSDS (by the manufacturer) of agent.

3.6.0 REFILLING AND MAINTENANCE:

If in any case a cylinder shows the loss in agent quantity of more than 5% or loss in pressure of more than 10% it should be refilled or replaced. The possible refilling should be in India itself. The contractor should indicate UL / FM / LPCB / Vds approved and certified filling stations/sources of refilling and time that will be taken for refilling and replacement in Delhi/NCR area.

The contractor shall refill the NOVEC 1230 Gas during the entire CAMC period at the same rates as quoted in this tender in case of discharge / release of the same due to any fire incident / accidental release by the buyer, if so asked by RailTel.

3.7.0 DISCHARGE TIME:

As gas has to be fully discharged within 10 seconds for effective extinguishing of fire as per latest edition of NFPA-2001 & ISO-14520 standards, the contractor has to ensure that the design meets this requirement. Once the discharge takes place there should be warning signs restricting personal from entering the protected area until the gas has been cleared from the area.

3.8.0 MATERIALS AND EQUIPMENTS:

All materials and equipments shall be from approved manufacturers and shall be suitable for the performance of their respective functions.

3.9.0 CYLINDER:

- 3.9.1 The cylinder shall be high pressure, seamless steel gas cylinder, flat type, and concave bottom as per **IS 7285 and PESO approved**. Welded cylinders shall not be acceptable. The serial nos. of the cylinders shall be engraved or embossed by the manufacturer.
- 3.9.2 The cylinders should be complete with all accessories mainly cylinder valve, pressure switch & pressure gauge. Cylinder valve bodies shall be of brass. The cylinders shall be inspected and tested by the Engineer - in - Charge and his subordinate officer at manufacturer's testing premises. The contractor shall arrange for factory inspection. Nothing extra shall be paid on this account.
- 3.9.3 A suitable fill density should be considered. Appropriate fill density shall be chosen based on the cylinder location and piping retrofit. The hydraulic calculations should prove that the fill density is appropriate and total discharge will take place within 10 seconds.
- 3.9.4 The cylinders shall be super-pressurized with dry nitrogen to **42 bar (600psi) at 21°C**. The cylinder shall be capable of withstanding any temperature between -15° C and 54°C.
- 3.9.5 Cylinder shall be mounted according to manufacturer recommendations and have permanent marking of the agent, tare and gross weight etc.
- 3.9.6 The cylinder shall withstand Hydrostatic test pressure up to 100 bar and maximum working pressure at **15°C shall be 42 bar**.
- 3.9.7 Both main and secondary cylinder shall be permanently connected for uninterrupted protection and arrange for changeover.
- 3.9.8 Filling should be as per design requirement Vds approved flow calculation software. The maximum filling density should be 0.75 to 0.85 Kg/L. The numbers of cylinder shall not be more than 5 as mentioned in SOR.
- 3.9.9 The cylinder shall be refillable in India and filling station must be UL/FM/LPCB/Vds approved. The contractor should also indicate the source of original filling , re-filling and the time that will be taken for re-filling and replacement.

4.0.0 VALVES:

The discharge valve shall be UL / FM / LPCB / Vds approved or listed for use with **NOVEC 1230**. All the gaskets, O-ring, sealant and other valve component shall be constructed of materials compatible with the clean agent. The system should be engineered using hardware approved for use with **NOVEC 1230 systems**. This would include main discharge valve, solenoid, check valve / non-return valve and pneumatic actuators.

4.1.0 PIPES AND FITTINGS:

All Pipes shall be of ASTM A 106, Gr: B, Sch 40 seamless mild steel pipes and fittings shall be as per ASTM A 105 & ASTM A 234 Gr. B Sch. 40 standard. These pipes shall be coated with two coats of primer and two coats of red enameled as per fire norms. No cast iron shall be used.

4.2.0 DISCHARGE NOZZLE:

Brass discharge nozzle (UL / FM / LPCB / Vds approved) shall be used to control the flow of **NOVEC 1230** to ensure high velocity, proper mixing in the surrounding air and uniform distribution of the agent throughout the enclosure. The number of nozzles and their positions must be chosen so that the design concentration is maintained everywhere in the enclosure or as per the SOR whichever is the highest. Nozzle shall be located where they can be adequately supported on walls, ceiling or structural members. Software generated calculation supporting the nozzle design shall be submitted by the successful contractor before signing of contract.

4.3.0 DOCUMENTATION:

- 4.3.1 The contractor should submit after award of contract, the piping Isometric drawing and support the same with a hydraulic flow calculation generated by using the agent's design software (UL / FM / LPCB / Vds approved). The calculations shall validate the fill density assumed by the contractor.
- 4.3.2 The contractor shall submit copies of the datasheets of the hardware used in the system. The contractor shall also submit copy of CCOE approval letter for the cylinder proposed to be used. These documents shall be attached to the bid.
- 4.3.3 The contractor shall also submit calculations to evidence the qty of agent considered for the system.
- 4.3.4 The vendor must submit, along with the supply invoice, a certificate of filling for the agent from the system engineering company in addition to the certificate specified under clause No.3.2.0.

5.0 SPECIFICATION FOR USER MENUS

User Menus shall be Defined as

Follows: - Active Alarms

Unit memory shall hold the 200 most recent alarms with time and date stamp for each alarm.

Event Log

Unit memory shall hold the 400 most recent events with id number, time and date stamp for

each event.

Graphic Data View

Eight graphic records shall be available: return air temperature, return air humidity, supply air temperature, outdoor temperature and four custom graphs.

Unit View - Status Overview

Simple or Graphical. Unit View summary displays shall include temperature and humidity values, active functions (and percent of operation) and any alarms of the host unit.

Total Run Hours

Menu shall display accumulative component operating hours for major components including compressors, fan motor, humidifier and reheat

Display Setup

Customer shall pre-select the desired grouping of display languages at the time of the order from the following choices: English, French, Italian, Spanish, German, Portuguese, Russian, Czech and Chinese

Service Contacts

Menu shall allow display of local service contact details.

Service Menus Shall be Defined as Follows: -

Setpoints

Menu shall allow setpoints within the following ranges:

- o Temperature Setpoint 18-29°C
- o Temperature Sensitivity 0.6-5.6°C
- o Humidity Setpoint 20-80% RH*
- o Humidity Sensitivity 1-30% RH
- o High Temperature Alarm 2-32°C
- o Low Temperature Alarm 2-32°C
- o High Humidity Alarm 15-85% RH
- o Low Humidity Alarm 15-85% RH

* The microprocessor may be set within these ranges, however the unit may not be able to control to extreme combinations of temperature and humidity.

Standby Settings/Lead-Lag

Menu shall allow planned rotation or emergency rotation of operating and standby units.

Timers/Sleep Mode

Menu shall allow various customer settings for turning on/off unit.

Alarm Setup

Menu shall allow customer settings for alarm notification (audible/local/remote). The following alarms shall be available:

- o High Temperature
- o Low Temperature o
- High Humidity
- o Low Humidity
- o Compressor Overload (Optional) o
- Main Fan Overload (Optional)
- o Humidifier Problem
- o High Head Pressure o
- Change Filter
- o Fan Failure
- o Low SuctionPressure
- o Unit Off

Audible Alarm

The audible alarm shall annunciate any alarm that is enabled by the operator.

Common Alarm

A programmable common alarm shall be provided to interface user selected alarms with a remote alarm device.

Remote Monitoring

All alarms shall be communicated to the Remote monitoring system with the following information: Date and time of occurrence, unit number and present temperature and humidity.

Sensor Calibration

Menu shall allow unit sensors to be calibrated with external sensors.

Maintenance/Wellness Settings

Menu shall allow reporting of potential component problems before they occur.

Options Setup

Menu shall provide operation settings for the installed components.

System/Network Setup

Menu shall allow Unit-to-Unit (U2U) communication and setup for teamwork modes of operation (up to 32 units).

Teamwork Modes of Operation

Saves energy by preventing operation of units in opposite modes multiple units.

Auxiliary Boards

Menu shall allow setup of optional expansion boards.

Diagnostics/Service Mode

Control input and output values and status shall be displayed to aid in unit diagnostics and troubleshooting. Control inputs shall be indicated as on or off at the front display. Control outputs shall be able to be turned on or off from the front display without using jumpers or a service terminal. Each control output shall be indicated by an LED on a circuit board.

Advanced Menus**Factory Settings**

Configuration settings shall be factory-set based on the pre-defined component operation.

CHAPTER-8

INSPECTION, TESTING, COMMISSIONING AND PERFORMANCE GUARANTEE

INSPECTION, TESTING, COMMISSIONING AND PERFORMANCE GUARANTEE

8.1 GENERAL

This chapter covers initial inspection and testing of at manufacturer's works, Initial inspection of other equipments/materials on receipt at site, final inspection, testing & commissioning of all equipment at site & description of testing requirements & procedure.

All equipment shall be tested at manufacturer's work as per latest relevant specification of NFPA 2001 &/or mention in Annexure I and II in Chapter-10 or in the absence of above specification, approved testing methods shall be followed and test certificates/ reports submitted to the Engineer-in-charge. The contractor shall intimate in advance the probable date of such tests to the Engineer-in-charge to enable him/his representatives to witness the tests if he so desires. But under no circumstances shall this absolve the Contractor of his responsibility for Performance of the Equipment or System.

In addition to the above, all equipment and systems shall be tested after installation as required by various statutory authorities, certifying agencies and as required under various sections of the specifications/ Special Conditions.

The Contractor shall leave necessary provisions required for fixing instruments, gauges, meters, etc. for testing the installation even if the same are not shown on the drawings. All such instruments, services etc. needed for the tests shall be arranged by the Contractor at his own cost.

Not with standing approval of test so requirement or materials by Engineer-in-charge / Statutory Authorities etc., upto the tests in static state as described here-in above, the Contractor shall be required to perform site tests to prove correctness of ratings and performance of system, machines and materials supplied and installed by him, in dynamic state also.

All equipment shall be capable of performing the duties specified in these specifications without damage, distortion or failure of any component.

The performance of various equipment individually shall not be less than quoted ratings, quantity and standards when tested in dynamic state. The special conditions regarding penalty clause may also be noted in this regard.

All test instruments shall be calibrated for accuracy prior to taking the performance tests. All safety and control instruments shall be checked for proper operation, sequencing etc and set points furnished to Engineer-in-charge.

In the event of short fall in response time or failure etc. or non-fulfillment of performance of system /materials or overall installation, in anyway whatsoever, the Contractor shall at his own cost make good the defects by altering, repairing, replacing, augment in get as required at his own cost and to the entire satisfaction of Engineer-in-charge and within reason able time as may be decided by Engineer-in-charge. Tenderers shall carefully study the spaces allotted for installation of system and allied works and offer their equipment and systems to fit into the spaces allotted. The tenderers shall take into account the spaces required for maintenance etc. All requirements for safe and efficient installation and operation of the plants shall be deemed to be included in the offer.

8.2 INITIAL INSPECTION AT MANUFACTURER'S WORKS

- a. Physical verification for thickness and make shall be carried out as per contract before application of insulation.
- b. Manufacturer's test certificate for density shall be furnished.

Note: Accuracy of testing instruments shall be as mentioned in the final inspection procedure given below.

8.3 FINAL INSPECTION AND TESTING

8.3.1 Fire Alarm Control Panel

- a) The FACP shall be visually checked for input voltage and ampere. All zones one by one shall be de-wired to check for fault signal indication in the FACP.
- b) The power source shall be cut off and checked for standby supply from the batteries. After six hours FACP shall be switched onto check the auto switch over to the main mode.
- c) Test shall be conducted for AC fail, charger fail, DC fail, Battery disconnect or Battery fail. In all such cases the relevant LED should glow and the piezo sound shall also give sound output.
- d) Low battery indication, fault indication should be made available in the panel.

8.3.2 Smoke Detector

- a) The testing shall be carried out for each loop/ zone.
- b) Initially one Detector in a zone and subsequently two or more disassociated detectors in each zone shall be tested for alarm priority, Alarm Queuing and Call logging with time lapse between detectors.
- c) An identified electricity shall be subject to smoke aspiration from burning paper/cigarette puffs, rubber and other materials which give dense smoke held at 0.3 M distance from the detector.
- e) The FACP should indicate increased analogue output for that address and after the programmed delay time, a fire alarm shall be indicated. The delay shall be utilized for alarm verification.

8.3.3 Heat Detector

The same test in the same sequence shall be carried out for the detector but with the application of hot air from a hair dryer.

8.3.4 Combined Test

The combined test shall be in combination of photoelectric. Heat detectors simultaneously with time lapse between application of smoke or heat or as additional test.

8.3.5 Additional test

- a) One detector of each type will be disconnected and subjected to slow dust build up by means as desired by the Consultant/ Client and again connected in the circuit.
- b) Any part of the loop shall be short circuited. The FACP shall indicate the communication failure of all the devices connected in the short circuit segment.
- c) After the short circuit is connected the fault isolator shall return to a normal status automatically, thus being reflected in the FACP.
- d) The loop shall then be in normal operation again. Any part of that loop shall be de-wired and tested as given above in open fault.

8.3.6 All other tests as required by the client at the time of handing over shall also to be conducted.

8.3.7 All fire alarm system i.e. Addressable Panel, Smoke detector, Hooter, Manual call points shall be of same make. Master and slave actuator shall also be of same make.

All instruments for testing shall be arranged by the Contractor and suitable provision made in the piping and/or equipment for installing the same.

8.4 TESTING REQUIREMENTS AND PROCEDURES

Systems and all tests as called for in the Specifications shall be carried out by the Contractor in accordance with the Specification, the Standard Specification & Recommendation of NFPA 2001 codes.

8.4.1 TESTING & INSPECTION BY THE DEPARTMENT & FIRE DEPARTMENT

- (a) On commissioning of the installation, all equipments shall be initially tested for proper functioning of the system in the presence of Engineer – in – charge before being offered for inspection by the Acceptance Testing Team.
- (b) Acceptance Testing (A/T) shall be conducted in the presence of concerned departmental staff as per A/T schedule like introducing smoke into the detector assembly to provide the basic functional test and Smoke to the least favorable air sampling points in each sampling pipes. The transportation time not to exceed the 120 sec and buzzer alarm
- (c) It will be responsibility of the firm to obtain necessary 'Acceptance Testing Clearance Certificate'. Necessary Testing Equipment along with operating personnel shall be arranged by the firm without any extra cost till final clearance for acceptance testing is obtained.

8.4.2 CLEARANCE FROM THE FIRE DEPARTMENT

It will be the responsibility of the firm to coordinate with other agencies in obtaining necessary Clearance Certificate from the Fire Department / Local statutory body. Necessary testing equipments along with operating personnel shall be arranged by the firm without any extra cost till clearance certificate from the fire department is obtained.

8.4.3 OPERATION OF SYSTEM

The department shall have the right to operate all equipments, if in operating condition, whether or not such equipments have been accepted as complete and satisfactory. Repairs and alterations shall be made by the firm at such times as directed by the Engineer – in – charge, free of charge.

8.5 DATE OF ACCEPTANCE

Subject to the guarantee Clause date of taking over the installation after 25 days of trouble free operation shall be the date of acceptance. Any undue wear and tear of components during the “Running in Period” shall be made good by the contractor free of charge.

8.6 OPTIONAL TESTING

The NOVEC 1230 fire suppression system will be thoroughly testing using Nitrogen gas if warranted /desired by RailTel. The cost of Nitrogen gas will be borne by RailTel.

The above Inspection/testing shall be carried out with prior intimation to the RailTel officials and RailTel officials will accompany the Engineer-in-charge during the course of above inspection.

8.7 GUARANTEES

- (a) The guarantee shall cover each & every material whether manufactured by the contractor or not. The contractor shall replace the defective parts with new ones. Replaced parts shall also be covered by a similar guarantee.
- (b) The replaced parts shall be of genuine make and subject to approval by the RAILTEL.
- (c) The contractor shall guarantee the performance of the entire process, equipment and pipeline for a period of one year from the date of handing over to RAILTEL.

8.8 REPORTS

Provide 3 copies of the complete balancing and testing reports to RAILTEL. Report shall be neatly typed and bound suitable for a permanent record. Report forms shall contain complete test data and equipment data as specified.

8.9 DOCUMENTS TO BE SUBMITTED BY THE FIRM:

- (a) **Before start of work:** All relevant drawings as given below and catalogues of all the major parts

shall be submitted after inspecting the site. The firm shall get these drawings approved from the department and the work shall be executed accordingly.

- ii) Floor plans showing location of the detectors indicating the proposed distances between the detectors.
- iii) Floor plans indicating the locations of main control panel, hooters, manual call points, control modules, gas cylinders, gas release nozzles, piping (along with design calculations) and sign boards etc
- iv) Conduit / cable layout diagrams.
- v) Drawing showing general arrangement of main control panel.
- vi) Any other drawings or data that may be necessary for the work.

Along with dispatch of the material: The firm shall submit completion drawings, maintenance check charts, schematic wiring diagram and all other necessary operation and maintenance, instruction manuals.

- (b) On completion of the work:** The firm shall be submit completion drawings, maintenance check charts, schematic wiring diagram and all other necessary operation & maintenance, instructions manuals.

8.10 Performance Guarantee & defect liability period

The guarantee shall be valid for a period of twelve months after taking over the installation. The firm shall guarantee that all equipments shall be free from any defects due to the defective materials or bad workmanship and that the equipment shall work satisfactorily and that the performance and efficiencies of the equipments shall not be less than the guaranteed values. Any parts found defective during the guarantee period shall be replaced by the firm without any charge whatsoever. The services of the firm's personnel, if required, during this period for such work shall be made available to the department without any extra charges.

The firm shall depute their representatives to the site immediately on notification of defects by the department.

The consequential losses and damages are, however not recovered under the purview of guarantee.

CHAPTER-9
COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

9.0 Comprehensive Annual Maintenance Contract

The scope of work also includes Comprehensive Annual Maintenance Contract for a period of 3 years after warranty period which includes attending monthly maintenance along with 4 preventive maintenance checkup in a Year (i.e. once in 3 months total system check up, servicing, rectification of faults if any). Also, unlimited breakdown calls including supply of spares and replacement of spares of the complete system as and when fails. The tenderer should submit their strategy for providing maintenance support during maintenance, warranty and post warranty period. The CAMC will also cover any gas leakage of the system due to design, system component fault / malfunction.

The details of preventive maintenance are as follows:-

9.1 FIRE ALARM SYSTEM

- a) Check fire alarm equipment to make sure it is not damaged or inoperative.
- b) Check illuminate lamps and LEDs on fire panels.
- c) Check the condition of batteries for fully charged.
- d) Check all fuses and DC batteries are in operating condition.
- e) Check manual stations (Manual call points) and defectors for damage or obstruction.
- f) Smoke detectors, alarms, batteries life etc. should be tested and examined.
- g) Smoke detectors within premises should be cleaned out of dust and tested by simulated signal.
- h) Check smoke detectors for damage or obstruction.
- i) Check for release of access control door in case of fire alarm.
- j) Check for addressing of smoke detector/ MCP activated for test in fire alarm panel.
- k) AHU tripping if applicable.

9.2 FIRE SUPPRESSION SYSTEM

- a) Check the indicator position for all the cylinders.
- b) Check the fire alarm panel.
- c) Check manual stations (Manual Call Points) and detectors for damage or obstruction.
- d) Remove the actuator from cylinder.
- e) Give the smoke to smoke detectors.
- f) Clean the detectors.
- g) PAC tripping for respective room applicable.
- h) If in any case a cylinder shows the loss in agent quantity of more than 5% or loss in pressure of more than 10% it should be refill or replace.

9.3 THE CONTRACTOR shall undertake to provide comprehensive service maintenance of the said equipments of RailTel at their location strictly subject to the compliance of the conditions of this contract and the contractor shall not be allowed to remove the said equipments from RailTel's said unit.

9.4 THE CAMC agreement shall be in force after completion of warranty period of one years and can be terminated by giving 30 days written notice in advance, provided the services rendered by contractor is not satisfactory.

9.5 THE contractor shall during the course of attending “on-call service” of during their regular preventive maintenance service, noticing the requirement of spares parts shall on notice to the RailTel or its authorized person/persons and in his/their presence, replace after removal, if required , such parts and clear or remedy the defects/flaws or faults, only at the site. Necessary and sufficient spares etc. of good quality and standard shall be kept ready by the contractor for immediate requirement or otherwise for compliance of other provisions thereof. On the account, the RailTel system or its accessories/ equipment etc are to be taken out from its normal installed locations be the contractor as aforesaid. Only replacement of such assemblies on the whole unit on a like –by like basis and for removal of any malfunctioning is permissible. The contractor shall give advance notice to the said authorized person/ persons of the RailTel for attending to the said job and indicating the extent and nature of job to be undertaken in this regards.

9.6 THE maintenance charges shall be payable to the contractor by RailTel in , if the contractor discharges truly and faithfully its obligations.

9.7 THE contractor must ensure the attendance of service engineer within 4 hrs. on call.

9.8 PENALTY will be imposed as follows:-

- a. The uptime for the critical items such as control panel, sensor, detectors & hooter should be ensured 95% on individual, 99% uptime for equipment in cluster and for peripherals should be 80%.
- b. “ In case of preventive maintenance is not carried out during the quarter, then penalty equal to 50% of monthly CAMC charges will be imposed”.
- c. If the contractor fails to attend the faults within 24 hrs. of Fire Alarm and Gas Suppression System, a penalty will be imposed as follows:-
 1. **Critical Faults :-**Rs. 1000/- per day for up to 15 days, if faults possess even after next 15 days, the charges will be Rs. 2000/- per day.
 2. **Semi Critical Faults:-**Rs. 500/- per day for up to 15 days, if fault posses even after next 15 days, the charges will be Rs. 1000/- per.
 3. If faults are not cleared by contractor as per the satisfaction of RailTel's officer incharge. RailTel will get the same rectified by other agency. The amount will be recovered from the contractor.
- d. The uptime for the respective equipment to be calculated as follows:

The following terms will be used for computing the resolution time: The “**Repair Request Time**” is defined as the time of the telephone call by RailTel advising contractor of a failure.

The “**Time of Repair**” is defined as the time at which an engineer assigned by contractor demonstrates to an authorized employee of RailTel that the failing system has been restored to full working order.

The “ Resolution Time ” or “ **Down Time of a failure** ” is defined as the time between the repair request time and the time of repair consider the service window.

The Average down Time (ADT) for the Equipment for a particular month is defined as R/S .

R=The sum of the downtime during the 3 months period ending with the particular month.

S= the number of failures during the period.

- 9.9** The Contractor shall not assign the contract or any part of it without the prior approval of the RailTel obtained in writing.
- 9.10** This contract is neither terminable before the expiry period nor is it transferable.

SIGNED ON BEHALF OF RAILTEL

(Signature with Stamp & Date)

SIGNED ON BEHALF OF M/S.

(Signature with Stamp & Date)

CHAPTER-10

ANNEXURES & DRAWINGS

Annexure-I

LIST OF APPROVED MAKES

S.No.	ITEMS	MAKES	APPROVALS
01.	Seamless Cylinders	WNCL / Jose Heiser / Norris / Faber / EKC/ or equivalent	PESO (CCOE)
02.	Valve Assembly	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
03.	Electric Control Head	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
04.	Pressure Operated Control Head	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
05.	Discharge Nozzle	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
06.	Manual Actuator	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
07.	Flexible Discharge Hose	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
08.	Manifold Check Valve	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
09.	Actuation Hose	Siemens / Kidde Deugra / SHT / BOC or equivalent	UL/FM/Vds/LPCB
10.	NOVEC1230 Gas	3M	UL
11.	Seamless Pipe	MSL / Tata / Jindal / Zenith	Local
12.	Fire Control Panel	CEL / VES / Siemens / Kidde / Secutron / Honeywell / Notifier or equivalent	UL/FM/Vds/LPCB/EN
13.	Multi sensor Detector	Apollo / Siemens / Kidde / Notifier / Honeywell or equivalent	UL/FM/Vds/LPCB
14.	Manual Call Points	Apollo / Siemens / Kidde / Safeway / Honeywell / ECD or equivalent	UL/FM/Vds/LPCB
15.	Loop Sounder	Apollo / Siemens / Kidde/ Safeway / Honeywell or equivalent	UL/FM/Vds/LPCB
16.	Active Display Units / Gas Discharge Indicator	Apollo / Siemens / Kidde / Safeway / Honeywell / ECD	Local
17.	Manual Release Switch	Siemens / Kidde / Safeway /	Local

		ECD	
18.	Manual Abort Switch	Nitin / Siemens / Kidde / Safeway / ECD	Local
19.	Cables	Finolex / Neoflex / Gloster / Polycab / KEI	Local

Annexure-II

LIST OF BUREAU OF STANDARDS & CODES

The system shall meet the following design standards as required by the law of the country. If no specific local laws are available, NFPA 72 shall be followed.

Approvals

The system shall have proper listing and/or approval from the following nationally recognized agencies:

UL - Underwriters Laboratories Inc
ULC - Underwriters Laboratories Canada
FM - Factory Mutual
LPCB - Lost Prevention council of Great Britain
MEA - Material Equipment Acceptance (NYC)
VdS - Verband derSchadenverhireung
CSFM - California State Fire Marshal

The fire alarm control panel, detectors, devices, sounder, strobes etc., shall be UL / LPCB / VdS approved components.

Tender calls for design, supply, testing and commissioning fire protection system for various areas of our equipment room

- UPS room
- Equipment/OFC room
- Server room
- Store Room

Location	Length	width	Height	False Ceiling	System Required
	(in feet)	(in feet)	(in feet)		
UPS Room	19.5	10.5	10.4	No	Fire detection & Suppression System
Equipment/OFC Room	19.11	26	10	Yes	Fire detection & Suppression System
Sever Room	25.6	19	15	Yes	Fire detection & Suppression System
Store Room (front Room)	21.6	16	9.1	Yes	Fire detection only
Store Room (Back Room)	21.6	11.8	8.8	No	Fire detection only