

TENDER DETAILS

TYPE OF TENDER -- OPEN TENDER

TENDER NOTICE NO - **SRDEE-TRD-BSB-2026-27-T06**

TENDER PAPER

Open E - Tender is invited by Sr.DEE/TRD/BSB on and behalf of President of India for the work of Contract for Outsourcing of PSI Maintenance Activities of BSB Division CHPG - GKC Section including HTW/SP of N.E. Railways for 2 Years.

Name of work: - Outsourcing of PSI Maintenance Activities of BSB Division CHPG - GKC Section including HTW/SP of N.E. Railways for 2 Years.

Period	:	24 Months
Estimated Cost	:	Rs. 1,80,96,372.94
Earnest Money	:	Rs. 3,61,900.00

MEANING OF TERMS

Applicability: These instructions and conditions of contract shall be applicable for all the tenders and contracts of railways for execution of 'Works' as defined in GFR 2017 and GCC - 2022 or latest.

Order of Precedence of Documents: In a contract agreement, in case of any difference, contradiction, discrepancy, with regard to conditions of tender/contract, specifications, drawings, Bill(s) of Quantities etc., forming part of the tender/contract, the following shall be the order of precedence:

- i. Letter of Award/Acceptance(LOA)
- ii. Bill(s) of Quantities
- iii. Special Conditions of Contract
- iv. Technical Specifications as given in tender documents
- v. Drawings
- vi. Indian Railways Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- vii. Indian Railways Unified Standard Specification (IRUSS-2019) updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- viii. CPWD Specifications 2019 Vol I & II updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- ix. Indian Railways Unified Standard Specifications (Works and Material) 2010 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- x. IR Specifications/Guidelines updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- xi. Relevant B.I.S. Codes updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.

Interpretation: These Instructions to Tenderers shall be read in conjunction with the Standard General Conditions of Contract which are referred to herein and shall be subject to modifications additions or suppression by Special Conditions of Contract and/or Special Specifications, if any, annexed to the Tender Forms.

Definition: In these Instructions to Tenderers, the following terms shall have the meanings assigned hereunder except where the context otherwise requires:

- (a) "Railway" shall mean the President of the Republic of India or the administrative officers of the Railway or Successor Railway authorized to deal with any matter, which these presents are concerned on his behalf.
- (b) "General Manager" shall mean the Officer-in-Charge of the general superintendence and control of the Zonal Railway/Production Unit and shall also include Addl. General Manager, General Manager (Construction) and shall mean and include their successors of the Successor Railway.
- (c) "Chief Engineer" shall mean the Officer-in-Charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction), Chief Signal & Telecom Engineer, Chief Signal & Telecom Engineer (Construction), Chief Mechanical Engineer and shall mean and include their successors of the Successor Railway.
- (d) "Divisional Railway Manager" shall mean the Officer-in-Charge of a Division of Zonal Railway and shall mean and include Divisional Railway Manager of the Successor Railway.
- (e) "Engineer" shall mean the Divisional Engineer or Executive Engineer, Divisional Signal & Telecom Engineer, Divisional Electrical Engineer, Divisional Mechanical Engineer in executive charge of the works and shall include the superior officers, both Open Line and Construction Organizations, of Engineering, Signal & Telecom, Mechanical and Electrical Departments, i.e. the Senior Divisional Engineer/Deputy Chief Engineer, Senior Divisional Signal & Telecom Engineer / Dy. Chief Signal & Telecom Engineer, Senior Divisional Electrical Engineer / Deputy Chief Electrical Engineer, Senior Divisional Mechanical Engineer and shall mean & include the Engineers of the Successor Railway.
- (f) "Tenderer" shall mean the person / firm / co-operative or company whether incorporated or not who tenders for the works with a view to execute the works on contract with the Railway and shall include their representatives, successors and permitted assigns.
- (g) "Limited Tenders" shall mean tenders invited from all or some contractors on the approved or select list of contractors with the Railway.
- (h) "Open Tenders" shall mean the tenders invited in open and public manner and with adequate notice.
- (i) "Works" shall mean the works contemplated in the drawings and Bill(s) of Quantities set forth in the tender forms and required to be executed according to the specifications.
- (j) "Specifications" shall mean the Specifications for Materials and Works of the Railway as specified under the authority of the Ministry of Railways or Chief Engineer or as amplified, added to or superseded by special specifications if any, appended to the Tender Forms.
- (k) Standard Schedule of Rates (SSOR) shall mean the schedule of Rates

adopted by the Railway, which includes-

1. “Unified Standard Schedule of Rates of the Railway (USSOR)” i.e. the Standard Schedule of Rates of the Railway issued under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents;

2. “Delhi Schedule Of Rates (DSR)” i.e. the Standard Schedule of Rates published by Director General/ Central Public Works Department, Government of India, New Delhi, as adopted and modified by the Railway under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.

(l) “Drawings” shall mean the maps, drawings, plans and tracings, or prints thereof annexed to the Tender Forms.

(m) “Contractor’s authorized Engineer” shall mean a graduate engineer or equivalent, having more than 3 years experience in the relevant field of construction work involved in the contract, duly approved by the Engineer.

(n) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.

(o) “Bill of Quantities” shall mean Schedule of Item(s) included in the tender document along with respective quantities.

Words importing the singular number shall also include the plural and vice versa where the context requires.

If there are varying or conflicting provisions in the documents forming part of the contract, Senior Divisional Electrical Engineer (TRD), North Eastern railway, DRM Office, Varanasi shall be the deciding authority with regard to the intentions of the provisions and decision shall be final and binding on the contractor.

CREDENTIALS OF CONTRACTORS

2. Application for Registration:

Works of construction and of supply of material shall be entrusted for execution to contractors whose capabilities and financial status have been investigated and approved to the satisfaction of the Railway. A list of approved contractors shall be maintained in the Railway. The said list be revised periodically once in a year or so by giving wide publicity through advertisements etc. A contractor including a contractor who is already on the approved list shall apply to the concerned General Manager (Construction) / Chief Administrative Officer (Construction) / Principal Chief Engineer / Principal Chief Signal & Telecommunication Engineer / Principal Chief Mechanical Engineer / Principal Chief Electrical Engineer / Divisional Railway Manager, furnishing particulars regarding:

(a) his position as an independent contractor specifying engineering organization available with details of partners / staff / engineers

employed with qualifications and experience;

(b) his capacity to undertake and carry out works satisfactorily as vouched for by a responsible official or firm; details about the transport equipments, construction tools and plants etc. required for the work, maintained by him;

(c) his previous experience of works similar to that to be contracted for, in proof of which original certificates or testimonials may be called for and their genuineness verified, if needs be, by reference to the signatories thereof;

(d) his knowledge from actual personal investigation of the resources of the area/zone or zones in which he offers to work;

(e) his ability to supervise the work personally or by competent and duly authorized agent;

(f) his financial position;

An applicant shall clearly state the categories of works and the area/zone/division(s)/district(s) in which he desires registration in the list of approved contractors.

The selection of contractors for enlistment in the approved list would be done by a committee for different value of slabs as notified by Railway.

An annual fee as prescribed by the Railway from time to time would be charged from such approved contractors to cover the cost of sending notices to them and clerk age for tenders etc. Notices shall be sent to them on registered e- mail address and registered postal address.

TENDERS FOR WORKS

3. Tender Form: Tender Forms shall embody the contents of the contract documents either directly or by reference and shall be as per specimen form, Annexure-I. e-Tender Forms shall be issued free of cost to all tenderers.

4. Omissions & Discrepancies: Should a tenderer find discrepancies in or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders. The tender inviting authority may, if deemed necessary, clarify the same to all tenderers. It shall be understood that every Endeavour has been made to avoid any error which can materially affect the basis of tender and successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

5. Bid Security:

- (1) (a) The tenderer shall be required to submit the Bid Security 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. The Bid Security shall be as under:

Value of the Work	Bid Security
For all works	2% of the estimated cost of the work

Note:

- (i) The Bid Security shall be rounded off to the nearest Rs. 100/-. This Bid Security shall be applicable for all modes of tendering.
- (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.
- (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.

(b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of 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 the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.

(c) If his tender is accepted, this Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.

- (2) The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per **Annexure-VIA** and shall be valid for a period of 90 days beyond the bid validity period.
- (3) **In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:**
 - i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
 - ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within 5 working day before closing date for submission of bids.
 - iii. Non submission of scanned copy of Bank Guarantee with the bid on e- tendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.

- iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
- v. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected
- vi. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification “**Bid for the ***** Project**” and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
- vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.
- viii. the envelope is not sealed and marked as instructed above, the Railway assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

6. Care in Submission of Tenders:

(a) (i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.

(a)(ii) Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/ Integrated Goods and Services Tax Act, 2017(IGST)/ Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt. & as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.

(a)(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to railway immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.

(a)(iv) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/ SGST Act, the railway shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.

(b) When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.

(c) The Railway will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

6.1 In case of Proprietary firm/Joint Venture (JV) / Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc., **Annexure-V(A)** shall also be submitted by the each member of a partnership Firm/Joint Venture (JV)/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc. as the case may be, Non submission of a copy of certificate by the bidder shall result in **summarily rejection** of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested / digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document.

CONSIDERATION OF TENDERS

7. Right of Railway to Deal with Tenders: The Railway reserves the right of not to invite tenders for any of Railway work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by Railway administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.

7A. Two Packets System of Tendering: With a view to assess the tenders technically without being influenced by the financial bids, 'Two Packets System of tendering' shall be adopted wherein tender documents provide for the same.

7B. Pre Bid Conference: Intenders having advertised value more than Rs 50 Crore or as mentioned in the tender document, Railway shall conduct Pre Bid Conference(s) with the prospective bidders.

7C. Make in India Policy: Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.

7D. Permission to Bid for a bidder from a country which shares Land boundary with India: Any bidder from the countries sharing a land border with India will be eligible to bid in any procurement of works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India.

For interpretation of this para, Department of Expenditure, Ministry of Finance, Government of India letter F.No.6/18/2019-PPD dated 23/07/2020 shall be referred.

7E. Clarification of Bids: To assist in the examination, evaluation & comparison and pre-qualification of the Tender, the Railway may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is

not in response to a request by the Railway shall not be entertained or considered. The Railway request for clarification and the response of the bidder in this regard shall be in writing.

However, if a Bidder does not provide clarification of its bid by the date and time communicated in the Railway request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.

8. Execution of Contract Document: The Tenderer whose tender is accepted shall be required to appear in person at the office of General Manager/General Manager (Construction), Chief Administrative Officer (Construction), Divisional Railway Manager or concerned Engineer, as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from Railways that the Contract Agreement is ready. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by Railway only after submission of valid Performance Guarantee by the Contractor. In such cases the Railway may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the Railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in there-tender for that work.

9. Form of Contract Document: Every contract shall be complete in respect of the document it shall so constitute. Not less than 2 copies of the contract document shall be signed by the competent authority and the Contractor and one copy given to the Contractor (there would be no need of signing two copies if agreement is signed digitally).

(a) For Zone Contracts, awarded on the basis of the percentage above or below the applicable chapter(s) of Standard Schedule of Rates (SSOR) for the whole or part of financial year, the contract agreement required to be executed by the tenderer whose tender is accepted shall be as per specimen form, Annexure-II. During the

currency of the Zone Contract, work orders as per specimen form Annexures-III, for works not exceeding Rs. 5,00,000 each, shall be issued by the Divisional Railway Manager / Executive Engineer under the agreement for Zone Contract.

(b) For contracts for specific works, the contract document required to be executed by the tenderer whose tender is accepted shall be an agreement as per specimen form Annexure- IV.

RAILWAY
TENDER FORM (First Sheet)

Tender No. _____

Name of Work _____

To

The President of India

Acting through the _____ Railway

I/We _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this offer open for acceptance for a period of _____ days from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for _____ Railway, at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects within _____ months from the date of issue of letter of acceptance of the tender.

2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Standard Schedule of Rates (SSOR) with all correction slips up-to-date for the present contract.

3. A Bid Security of Rs.____has already been deposited online/ submitted as Bank Guarantee bond. Full value of the Bid Security shall stand forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:

- (a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
- (b) I/We do not execute the contract documents within seven days after receipt of notice issued by the Railway that such documents are ready; and
- (c) I/We do not commence the work within fifteen days after receipt of orders to that effect.

4. (a) I/We am/are a Startup firm registered byDepartment of Industrial Policy and Promotion (DIPP) and my registration number is valid upto (Copy enclosed) and hence exempted from submission of Bid Security.

5. We are a Labour Cooperative Society and our Registration No. is with.....and hence required to deposit only 50% of Bid Security.

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

Signature of Witnesses:

- 1. _____
- 2. _____

Signature of Tenderer(s)

Date _____

Address of the Tenderer(s)

TENDER FORM (Second Sheet)

1. Instructions to Tenderers and Conditions of Tender: The following documents form part of Tender / Contract:

- (a) Tender Forms – First Sheet and Second Sheet
- (b) Special Conditions/Specifications (enclosed)
- (c) Bill(s) of quantities (enclosed)
- (d) Standard General Conditions of Contract and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected upto latest correction slips, copies of which can be seen in the office of____or obtained from the office of the Chief Engineer,
_____Railway on payment of prescribed charges.
- (e) Standard Schedule of Rates (SSOR) as amended / corrected upto latest correction slips, copies of which can be seen in the office of or obtained from the office of the Chief Engineer,____Railway on payment of prescribed charges.
- (f) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.

2. Drawings for the Work: The Drawing for the work can be seen in the office of the

_____and / or Chief Engineer,_____Railway at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.

3. The Tenderer(s) shall quote his/their rates as a percentage above or below the Standard Schedule of Rates (SSOR) of_____Railway as applicable to_____Division except where he/they are required to quote item rates and must tender for all the items shown in the Bill(s) of Quantities attached. The quantities shown in the attached Bill(s) of Quantities are given as a guide and are approximate only and are subject to variation according to the needs of the Railway. The Railway does not guarantee work under each item of the Bill(s) of Quantities. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by Railway. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be summarily ignored and will not be considered.

4. Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him
/ them.

5. The works are required to be completed within a period of months from the date

of issue of acceptance letter.

6. Bid Security:

(a) Subject to exemptions provided under para 5(1) (a) of Part-1 (ITT) of this document, the tender must be accompanied by a Bid Security as mentioned in tender documents, failing which the tender shall be summarily rejected.

(b) The Tenderer(s) shall keep the offer open for a minimum period of 60 days (in case of two packet system of tendering 90 days) from the date of closing of the Tender. It is understood that the tender documents have been issued to the Tenderer(s) and the Tenderer(s), is / are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to Railway.

Should the tenderer fail to observe or comply with the foregoing stipulation, the amount deposited or Bank guarantee bond submitted as Bid Security for the due performance of the above stipulation, shall be forfeited to the Railway.

(c) If his tender is accepted,

(i) The Bid Security mentioned in sub para(a) above deposited in cash through e-payment gateway will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract;

(ii) The Bid Security mentioned in sub para(a) above submitted as Bank guarantee bond, will be en-cashed as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract.

The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation to the Bid Security that may happen thereto while in their possession, nor be liable to pay interest thereon.

(d) In case Contractor submits the Term Deposit Receipt/Bank Guarantee Bond towards either the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security so retained as per sub para(c) above, to the Contractor.

7. Rights of the Railway to deal with Tender: The authority for the acceptance of the tender will rest with the Railway. It shall not be obligatory on the said authority to accept the lowest tender or any other tender, and tenderer(s) shall neither demand any explanation for the cause of rejection of his/ their tender nor the Railway to assign reasons for declining to consider or reject any particular tender or tenders.

8. If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the Railway reserves the right to reject such tender at any stage.

9. If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the Railway shall deem such tender as cancelled/ contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its characters per partnership agreement. If a sole

proprietor expires after the submission of tender or after the acceptance of tender, the Railway shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

SPECIAL CONDITIONS OF THE CONTRACT:

1. SCOPE OF WORK:

The works to be governed by this contract shall cover designing, procuring the material from RDSO/CORE approved sources, supplying, transportation till destination, safe custody at site, insurance, erection, testing & commissioning of works as per latest RDSO specifications with their addendum/corrigendum if any for particular item/assembly of work framed by RDSO, Ministry of Railways, Lucknow and mentioned in part-II of this tender.

2. Name of Work : Outsourcing of PSI Maintenance Activities of BSB Division CHPG - GKC Section including HTW/SP of N.E. Railways for 2 Years.

Note : Railway administration empowered to change the place of work as per requirement with the approval of competent authority (TAA)/Site Engineer.

2.1 Employment of Diploma and Degree Holder:

The contractor shall employ the following technical staff during the execution of this work:

- [i] One qualified graduate engineer when the cost of the work to be executed is Rs. 200 lakhs and above, and.
- [ii] One qualified diploma holder when cost of work to be executed is more than Rs.25 lakhs but less than Rs. 200 lakhs. Technical staff should be available at site whenever required by the Engineer in charge to take instruction.
- [iii] In case the contractor fails to employ the qualified engineer, as said above, he, in terms of provisions of GCC clause, shall be liable to pay an amount of Rs. 40,000/- (Rs. Forty - thousand only) and Rs. 25,000/- (Rs. Twenty Five thousand - only) for each month or part thereof for the default period for the provisions, as contained in para [i] and [ii] above respectively.

2.2 Commencement of contract

After the work is awarded the Contractor should depute minimum 4 gangs, deployment place of gang will be decided during awarding the tender. It is the contractors responsibility to complete all the preventive maintenance schedules within stipulated time period as under: **(a) Traction Substation:** (i) Yearly schedule in 11 days (ii) Half Yearly schedule in 6 days (iii) Monthly schedule in 5 days (iv) Fortnightly schedule in 2 days **(b) SP / SSP:** (i) Yearly schedule in 4 days (ii) Half Yearly schedule in 3 days (iii) Monthly schedule in 2 day (iv) Fortnightly schedule in 1 day **(c) Auxiliary Transformer & changeover panel:** (i) Yearly schedule in 4 day (ii) Quarterly schedule in 2 day. **The contractor has to deploy sufficient number of skilled & unskilled man power including supervisor in each gang to complete the above maintenance schedules in given time.**

Note: The contractor should proportionately increase the size of the gang (i.e. Technicians and Helpers) **during Break down/power block to cater the requirements of Railway.**

2.3 Qualification of the contractor's Personnel for PSI Maintenance work:

(a) Since the contract is primarily manpower oriented, therefore qualification and competence of the manpower deployed by the contractor is a crucial factor.

Therefore, Contractor is required to deploy Supervisors, Technicians and Helpers round the clock. The contractor shall ensure the required minimum educational qualifications & experience for his deployed Supervisors, Technicians and Helpers as tabulated below:

(i) Supervisor-in-Charge: The supervisory staff posted by the contractor should at least be Engineering degree holder in Electrical/Electronics Engineering

OR

Diploma in Electrical /Electronics engineering & should have 3 years experience in similar works

OR

should have worked at the supervisory level (SSE/JE of OHE/PSI/RC) in Railway for a minimum period of 3 years.

(ii) Technician/Fitter (Highly Skilled & Skilled): Should have certificate of ITI issued by any recognized institution and

OR

Should have worked as OHE/PSI technician in Railways for a minimum period of 2 years

(iii) Semi Skilled (PSI) : Should have passed minimum Sr. Secondary (12th) .

(iv) Unskilled : Should have passed minimum Matriculation (10th).

Note: 1 Photostat copies above educational qualification Certificates shall be self attested by the concerned person. The certificate of experience shall be submitted duly countersigned by the successful tenderer.

(b) Training to the contractor's personnel :

Training for the Contractor's personnel will be given free of cost by SSE/TRD for one week. During training period no payment will be made to contractor. The training for different level of staff will be different and shall be decided by Sr.DEE/TRD/BSB or his authorized representative. All the personnel desired to be deputed for this work including supervisors have to undergo a scrutinizing test conducted by Sr.DEE/TRD/BSB or his representative. Candidates found suitable will be given an Identity card by contractor and a "competency certificate" issued by Sr.DEE/TRD/BSB or his authorized representative valid for a period of currency of contract before they are put on the job. They have to keep both ID Cards and "Competency Certificate" with them while on duty and for their movements in the Railway premises.

2.4 Commencement Of PSI Maintenance Contract at field:

The contractor shall commence PSI maintenance work at field, preferably within 30 days but in any case not later than 60 days from issue date of Letter of Acceptance and

obtain a letter from Sr.DEE/TRD of respective division duly stating actual date of commencement of subject PSI maintenance work. Accordingly the completion period of contract will be reckoned from date of commencement of work.

2.4.1 : Programme of work: One supervisor from successful contactor will supervise each gangs maintenance activities, and maintain record of all activities, maintenance schedules and breakdowns. Contactor's Supervisor will readily available for any breakdown or emergency at any depot, and in case of his absence alternate arrangement should be made and Contractor Supervisor Prepare maintenance program / planning chart jointly with Railway representative for the whole year.

Monthly progress report: The Contractor shall furnish to the authorized representative of Sr.DEE/TRD/BSB office every month a progress report showing progress of work and attendance particulars of staff worked at site.

2.5 Photo Identity Cards to The Contractor Staff Deployed:

a) The deployed staff should be taken on duty after approval of railway authority and necessary photo identity cards to the staff deployed shall be issued by the contractor. The Contractor shall submit a list of suitable persons to be deployed for subject PSI Maintenance work.

b) The contractor shall be solely responsible for the conduct of the personnel deputed by him for the work.

c) The contractor shall arrange Identity cards valid only for a period of currency of contract for the suitable persons whom they have to keep with them while on duty and for their movements in the Railway work spots.

d) The age of the contractor's personnel deputed for duty should be more than 18 years and preferably less than 58 years as on date of commencement of work.

(e)The contractor's staff shall not carry or display or exhibit any kind of advertisement on his person at Railway premises.

f) The contractor's personnel should have knowledge of Hindi/English and preferably local language for speaking/writing

g) The contractor's personnel should not carry any unauthorized/dangerous/explosives in the complex and should not consume alcohol/intoxicating drugs etc. during duty hours.

h) These staff should reside close to the respective TrD Depot deployed for easy approach during emergencies. Residential addresses and phone numbers of specified staff should be made available with Traction Power Control and relevant OHE depot.

i) The Railway's Engineer-in-charge reserves the right to ask the contractor to remove any contractor's personnel from duty without assigning any reason whatsoever. The decision of Railway's Engineer-in-charge will be final and binding on the contractor.

j) Any changes in the list shall be done with prior approval of Railway authority.

2.6 Safety during PSI Maintenance work at field:

The contractor shall ensure the safety of all the staff provided for maintenance of PSI works. In case of any injury or accident the contractor is liable for their compensation, Railway will not take any responsibility to the contractor's provided labour.

- (a) Contractor shall ensure that communication facilities (cell phones) are available with all the technicians and supervisors.
- (b) While working in normal maintenance, if any breakdown occurs in the section, the maintenance staff should be diverted to breakdown site immediately as per the direction of Railway's representative.
- (c) Contractor shall provide for transportation bearing the cost for his staff by road/train for foot patrolling/AT fuse replacement/foreign body removal/any other activities specified by railway representative. In break down cases contractor representative with all men and materials has to move immediately along with Railway staff by Railway transportation.
- (d) Contractor shall be in position for arranging immediate attention of the defects noticed during various inspections for normal / emergency power block.
- (e) The arrangement for the stay of the contractor's staff shall be made by the contractor at his own cost.
- (f) Safety precautions to be followed as per **Para 20332 to 20348** of ACTM Vol-II Part-I with its latest correction slips and also Joint Procedural Orders, if any, issued by Railways.

2.7 Tools and plants management:

- (a) Periodical load testing of tools, tackles, plants shall be carried out to ensure healthiness and safety of equipment duly maintaining testing record equipment wise. Meters like dynamometer, etc., shall be calibrated & maintained for periodical testing of tools & plants. Contractor has to ensure to take over the load bearing T&P items after jointly testing the equipments with Railway Supervisor. There after these will be maintained in good working condition by the contractor during entire contract period.
- (b) Each Gang shall maintain and carry tool boxes having full set of required tools. These tool boxes shall be arranged by the contractor.

2.8 Reconciliation of Materials supplied by the Railway:

Spare Items (included in Part B of Explanatory note of Sub section - 1):-

- (i) Contractor has to arrange minimum spare items as given in Annexure-A of explanatory note of Sub section - 1 after award of contract as per the requirement of Railway supervisor in-charge and The material demanded in the supply is to be supplied by the contractor, other materials will be supplied by the Railway

administration.

(ii) Warranty of the spare items will be as per store codes. Date of commissioning of equipment will be considered as starting date for warranty period.

2.9 T& P and consumable Items :

Contractor must have all necessary T&P Items like Tirfors, Pull-lift, steel sling pulleys, ladder, manila rope, lights, safety belts, helmets, discharge rod, operating rod etc and measuring instrument like Magger, Earth tester, Binocular etc and consumable items like Oil Kerosene, Toilet soap, cotton waste, Tape insulation black, Hexa Blade, Cell for hand torch, Paint Brush, Emery cloth paper, Duster cloth white khadi, petroleum jelly, soap bar etc order to execute maintenance/Breakdown work at PSI. If the work is delayed due to Non – availability of above items necessary Penalty as per the penalty Clause will be imposed. The contractor should have all the T & P, required to carry out the breakdown as well as preventive maintenances as explained in the EXPLANATORY NOTES of the schedule of work during the contract period, in his possession. Moreover these T&P should have current year calibration certificate.

2.10 POWER BLOCKS AND PERMITS-TO-WORK:

Obtaining “Power Block, Permit-To-Work” and “Restoration of Supply” after a Permit-To-Work is returned shall be carried out by the '**Authorized Railway Person**' only and in line with Para 20600 to 20628 of ACTM Vol-II Part-I of Indian Railways with its latest correction slips if any. Contractor Supervisor shall not be permitted to do the above duties.

a) Availability of power block is dependent on traffic conditions and other operational exigencies. Hence, contractor should be prepared to mobilize staff for maintenance anytime during day / night time upon one hour advance intimation from Railways to ensure there is no shortfall in availability & utilization of power block.

b) Power blocks are premium hours permitted by regulating trains. Hence, optimum utilization requires full deployment of manpower.

c) If work is to be carried out by contractor representative on or adjacent to any part of the electrical equipment such work shall not commence until the person in-charge of the work is in possession of a written permit-to-work in the prescribed form issued to him by an “Authorized Railway Person”.

d) Such permits-to-work in the prescribed form shall only be issued by an “Authorized Railway Person” of the Electric Traction Branch not below the rank of a Technician.

e) The permit-to-work shall first be taken from TPC by an “Authorized Railway Person” n who shall ensure earthing the electrical equipment specified and hand over a permit-to-work card to the person in-charge of the work getting an acknowledgment on the other copy. A duplicate copy of every permit-to-work card shall be retained in the personal possession of the 'Authorized Railway Person' who issued it.

f) On completion of the work and when all men and materials have been withdrawn from the electric equipment and its vicinity, the person in-charge of the working party shall cancel his permit-to-work card and return it to the “Authorized Railway Person”

who issued it. The “Authorized Railway Person” shall in turn issue a message to TPC to cancel permit-to-work.

2.11 Knowledge of Rules and Sectioning:

a) It is very important for every contractor Supervisor who has occasion to ask for power block to know the correct method of identifying and describing any section of the OHE where shutdown is required. He should have with him the up to-date Station Working Rule Diagram for the section, showing all relevant particulars such as station names, position of all isolators, interrupters, circuit breakers, "up" and "down" tracks, cross-over section insulators, sectors, sub-sectors and elementary section numbers.

b) All contract staff shall be fully conversant with the "Rules & Safety Procedures" while working on TRD installations as laid down in maintenance manuals.

c) Competency certificates for working in 25kV electrified areas will be issued by Railways as per the scope of work.

d) Safety precautions to be followed as per **Para 20332 to 20348** of ACTM Vol-II Part-I with its latest correction slips and also Joint Procedural Orders issued by TRD.

2.12 BREAKDOWN GANGS:

(a) If any unusual occurrence/Breakdown/ taken place the contractor's staff should reach the Depot within 30 minutes in day time and 45 minutes at night time after receipt of the information from Railway representative and to report the Railways representative. The time of receipt of information should be recorded before railway representative and the call book memo should be jointly signed by the gang supervisor and railway representative before leaving to the breakdown site. In all such cases contractor should ensure full strength staff before leaving for the breakdown site.

(b) Accidents and breakdowns/failure involving PSI equipment should normally be attended to by the nominated contract gangs themselves. It is, however, essential that the contractor shall maintain adequate number of experienced staff comprising Technicians, Helpers and Supervisors, be near their residence to TRD depots, so that their services can be utilized at short notice for dealing with breakdowns and accidents whenever required. The breakdown gang comprising supervisory staff, technicians, helpers, etc., shall be fully aware of different skills required to tackle PSI equipment failure of various nature and Transportation medium decided by Railway authorities.

(c) Summoning of Emergency Staff: To enable the TPC to summon breakdown/failure staff as required, a register showing the residential addresses with phone numbers of specified staff of the contract gang those residing close to depots/railway stations, shall be made available by the contractor to TPC and shall be maintained depot wise/station-wise by TPC.

(d) Importance of Expeditious Repairs: Every failure of PSI, even if minor in nature, should be attended to urgently as it generally interferes with traffic. Since electrified lines carry a high density of traffic, the effect on traffic will be quite severe if restoration is not arranged expeditiously.

(e) Detailed Assessment by the First Supervisor Reaching Site: The first Supervisor/staff

reaching the site of the breakdown should make a quick assessment of the extent of damage and the time required for restoration. He will ascertain from TPC the details of break-down gangs and equipment directed to the site and if the circumstances want, ask for additional gangs and breakdown equipment to be sent to the site. On receipt of these details, Contractor should arrange for additional gangs and equipment to be sent to the site expeditiously. In the meanwhile, isolation and repair works should be started at site.

2.13 Power Block Working – Protection Of Men Working:

(i) Railway will arrange only power block for the works related to power block depending on the traffic and other conditions. The contractor shall ensure the removal of men and material before cancellation of power block. The contractor shall have to take full advantage of available power block by employing adequate staff for getting the maximum possible work done during the available block period. For adhering to target Time/date of completion, the contractor may have to work during night time under power block for which the contractor is not entitled for any additional payments.

(ii) The contractor shall take all precautions necessary to protect staff working under him. The contractor shall treat all other lines live except the line under Power block. He should ensure execution of work under the supervision of a competent person to carry out the work in electrified areas. Unless the adjacent lines are also under power block, voltage and currents will be induced in the line under power block. To protect against these induced voltages and currents, earth discharge rods are to be provided. Care should be taken by the contractor that these discharge rods are intact and not disturbed by his staff. He shall also ensure that none of the staff working under him shall work/reach beyond safe working limits.

(iii) At the end of each power block work the contractor shall ensure removal of all men and material.

(iv) If the contractor fails to execute and to work within the time of power block granted, Railway shall be at liberty to take action and recover penalty for availing additional power block in accordance with standard practice of the Railway. The contractor shall in consultation with the Railway submit a weekly power block programmed for work, 7 days in advance of the commencement of work.

2.14 Penalties:

For Sub section – 1 Part A, B & C

a) In case, the contractor performance in maintaining the system is unsatisfactory and frequently interruptions are experienced, the Railways shall be at liberty to terminate the contract after giving a month notice without prejudice to any other conditions of the contract.

b) In case of misbehavior with Railway staff by contractors staff, penalty shall be imposed at a rate of Rs. 1000/- per complaint.

c) Contractor shall not be liable for failure to perform any obligation or delay in performance resulting from any or beyond the control of Contractor or from any act of God or strike or riots or sabotage etc, however if it is established that any breakdown is

a result of inadequate maintenance work carried out by the contractor, Railway will impose a minimum penalty of Rs. 10000/- for every such incidence or decided by Railway authorities depending upon severity of Break down.

d) Penalties due to delay in scheduled maintenance activity:-

(i) Delay in the scheduled Yearly maintenance of equipments for more than a month will attract for a penalty of Rs. 500 per day after grace period of one month.

(ii) Delay in the scheduled Half - Yearly maintenance of equipments for more than 15 days will attract for a penalty of Rs. 500 per day after grace period of 15 days.

(iii) Delay in the scheduled Quarterly maintenance of equipments for more than 7 days will attract for a penalty of Rs. 500 per day after grace period of 7 days.

(iv) Delay in the scheduled Monthly maintenance of equipments for more than 3 days will attract for a penalty of Rs. 500 per day after grace period of 3 days.

(v) Delay in the scheduled Fortnightly maintenance of Battery for more than 3 day will attract for a penalty of Rs. 10% of awarded value of that item.

Note for (d) : The above mentioned relaxation in time period may be further extended in case of natural calamities, curfew, non-availability of power blocks or any other circumstance. Which is acceptable to Railway authority.

e) If the contractor failed to provide manpower and arrangement for rectification of the fault within 30 minutes in day time and 45 minutes at night time after receipt of the information from Railway representative and to report the Railways representative, Penalty at the rate of Rs.10000/- per hour of delay will be imposed.

f) In miscellaneous schedule item no. 8, 9, 10 & 12 penalty of 10% of awarded value of that particular item will be imposed when contractor fails to supply the item/rectify the fault when told to do so by Railway site -in-charge as per following time limit :-

(i) Item no 8-staff movement not done for more than 2 hours

(ii) Item no 9, 10, 12 -work not executed beyond 2 month.

g) Recovery due to wrong operation of equipment:

On duty contractor personnel shall follow the instructions of Railways Supervisor on duty for the maintenance of PSI equipment. If the contractor personnel performs any wrong operation of equipment, a penalty of **Rs.5,000/- per occasion** shall be imposed to the contractor if the train services are affected due to the wrong operation.

The cost of the damages/loss, if any, caused due to the negligence/fault of the Contractors' personnel, to the Railway property shall be recovered from the contractor on actual basis. The recovery shall be made inclusive of all contingencies by the Railways.

h) Recovery Due To Non- return of un utilized Railway supply materials:

The material issued to the deployed staff for maintenance/replacement of existing PSI equipments on day to day basis before leaving to the work site as per programme assigned by the depot in-charge, the unused materials and released materials should be handed over to the depot in-charge at depot premises after completion of day's work. **If the contractor fails to return such materials, the cost of such materials will be recovered at the book rate or the market rate whichever is higher.**

(i) The penalties as mentioned above may be imposed simultaneously and will be recovered at the time of payment of contractor's bill and contractor shall have no right for any objection. The total penalty shall be limited to 5% of the contract value.

2.15 Completion of Work: The contractor shall commence the work as specified in "Scope of the work and Special conditions" and shall complete the work in all respects as specified in tender details.

The Railway attaches utmost importance to the timely completion of the work on or before the date contracted for. In this connection, the attention of the contractor is specially invited to the clauses regarding '**Liquidated damages**' and termination of contract owing to default of contractor provided for in General Conditions of Contract.

2.16 Termination of contract:-

The outsourcing of OHE and PSI maintenance is being carried out due to shortage of railway staff. If the competent authority decides to withdraw outsourcing of OHE and PSI maintenance then contract will be terminated as per the procedure laid down in GCC-2022 or latest.

3. Eligibility criteria :-

3.1 (i) Technical Eligibility Criteria:

(a) The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or

Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or

One similar work each costing not less than the amount equal to 60% of advertised value of the tender.

(b) (i) In case of tenders for composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges – substructure, superstructure etc.), tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

Three similar works each costing not less than the amount equal to 30% of advertised

value of each component of tender, or

Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or

One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.

Note for b(i): Separate completed works of minimum required values for each component shall also be considered for fulfillment of technical eligibility criteria.

(b) (ii) In such cases, what constitutes a component in a composite work shall be clearly pre- defined with estimated tender cost of it, as part of the tender documents without any ambiguity.

(b) (iii) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 (a) (ii) of Part-II of GCC or through subcontractor fulfilling the requirements as per clause 7 of Part-II of GCC or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing.

However, if required in tender documents by way of Special Conditions, a formal agreement duly notarized, legally enforceable in the court of law, shall be executed by the main contractor with the subcontractor for the component(s) of work proposed to be executed by the subcontractor(s), and shall be submitted along with the offer for considering subletting of that scope of work towards fulfillment of technical eligibility. Such subcontractor must fulfill technical eligibility criteria as follows:

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted, in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract.

Note: for subletting of work costing up to Rs 50 lakh, no previous work experience of subcontractor shall be asked for by the Railway.

In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract, with prior approval of Chief Engineer in writing.

Note for Item 3.1 (i)

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of closing of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

The meaning of similar work for this work is **Maintenance/Repairs/Rehabilitation/Design, Supply, Erection testing and commissioning of 50Hz, single phase 25 KV AC OHE.**

OR

Maintenance/Repairs/Rehabilitation/Design, Supply, Erection testing & commissioning of 50Hz, single phase 25 KV AC Traction sub – station/Switching sub – stations.

OR

Repairs/Maintenance/Design, Supply, Erection testing & commissioning of sub – station of 132 KV or higher voltage.

(ii) Financial Eligibility Criteria: The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where

V= Advertised value of the tender in cores of Rupees

N= Number of years prescribed for completion of work for which bids have been invited.

The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

The tenderers shall submit requisite information as per Annexure-VIB, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

Non submission of the Annexure-VIB in prescribed format, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet shall lead to summary rejection of your offer.

(iii) Standard Technical Criteria

Tenderer should submit valid electrical contractor license issued by electrical inspector to any state government with the offer. If electrical contractor license has been expired, tenderer should submit receipt of renewal of electrical contractor license issued by electrical inspector to any state government with offer. At the time of contract agreement, contractor must submit valid electrical contractor license issued by electrical inspector to any state government. If tenderer have not submitted the valid electrical contractor license/renewal receipt, the offer will be summarily rejected.

Note: - Tenderer should upload documents in support of minimum eligibility criteria along with the tender. No document in support of minimum eligibility criteria will be accepted/entertained after opening of tender.

(iv) Bid Capacity: The tender/technical bid will be evaluated based on bid capacity formula detailed as Annexure-VI.

(v) No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.

(vi) Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:

The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date or immediately previous date for which rates have been published.

[Explanation for Para 3.1 of the Tender Form (Second Sheet) including Para 3.1(i) to 3.1(vi) –Eligibility Criteria:

1. Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.

2. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfilment of credentials.

3. If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfilment of credentials.

4. In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work.

In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.

5. If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 10.1 Para 10 of the

Tender Form (Second Sheet), the same shall be considered for the purpose of fulfillment of credentials.

6. In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.

7. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3×0.2 * value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

8. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

9. In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.

10. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.

11. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.

12. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it

is without any change in their value.

13. In a partnership firm “AB” of A&B partners, in case A also works as propriety firm “P” or partner in some other partnership firm “AX”, credentials of A in propriety firm “P” or in other partnership firm “AX” earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.

14. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.

15. In case company A is merged with company B, then company B would get the credentials of company A also.]

4. Tenderer Credentials:

Documents testifying tenderer previous experience and financial status should be produced along with the tender.

Tenderer(s) who is / are not borne on the approved list of the Contractors of Railway shall submit along with his / their tender:

(i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past.

(ii) Audited Balance Sheet duly certified by the Chartered Accountant regarding contractual payments received in the past.

(iii) The list of personnel/organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work.

(iv) In case of Proprietary firm/Joint Venture (JV) / Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc., **Annexure-V(A)** shall also be submitted by the each member of a partnership Firm/Joint Venture (JV)/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc. as the case may be, Non submission of a copy of certificate by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested / digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document.

(v) The Railway reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the Railway, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Railway shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the Railway there under.

(vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of upto two years.

(b) In case of any information submitted by tenderer is found to be false, forged or

incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the railway shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto two years.

5. Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

6. Execution of Contract Documents: The successful Tenderer(s) shall be required to execute an agreement with the President of India acting through the __, Railway for carrying out the work according to the Standard General Conditions of Contract, Special Conditions / Specifications annexed to the tender and Standard Specifications (Works and Materials) of Railway as amended/corrected upto latest correction slips, mentioned in tender form (First Sheet).

7. Documents to be Submitted Along with Tender

(i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / Company / Joint Venture (JV) / Registered Society / Registered Trust / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.

(ii) Following documents shall be submitted by the tenderer:

Note : If tenderer have not submitted below mentioned document, the offer will be summarily rejected.

(a) Sole Proprietorship Firm:

(i) All documents in terms of Para 3.1 of the Tender Form (Second Sheet) above.

(b) HUF:

(i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.

(ii) All other documents in terms of Para 3.1 of the Tender Form (Second Sheet) above.

(c) Partnership Firm:

(i) All documents as mentioned in para 30 of the Tender Form (Second Sheet).

(d) Joint Venture (JV): Not applicable

(e) Company registered under Companies Act 2013:

(i) The copies of **MOA (Memorandum of Association) / AOA (Articles of**

Association) of the company

- (ii) A copy of Certificate of Incorporation
- (iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender on behalf of the company and create liability against the company.
- (iv) All other documents in terms Para 3.1 of the Tender Form (Second Sheet) above.

(f) LLP (Limited Liability Partnership):

- (i) A copy of LLP Agreement
- (ii) A copy of Certificate of Incorporation
- (iii) A copy of Power of Attorney/Authorization issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP.
- (iv) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- (v) All other documents in terms of Para 3.1 of the Tender Form (Second Sheet).

(g) Registered Society & Registered Trust:

- (i) A copy of Certificate of Registration
- (ii) A copy of Memorandum of Association of Society/Trust Deed
- (iii) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.
- (iv) A copy of Rules & Regulations of the Society
- (v) All other documents in terms of Para 3.1 of the Tender Form (Second Sheet) above. If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.

(vi) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF/LLP etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in Railway's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.

(vii) A tender from JV shall be considered only where permissible as per the tender conditions.

(viii) The Railway will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. Railway may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

8. The tenderer whether sole proprietor/a company or a partnership firm/registered society/registered trust/HUF/LLP etc if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific

person whether he/they be partner(s) of the firm or any other person, specifically authorizing him/them to sign the tender, submit the tender and further to deal with the Tender/Contract up to the stage of signing the agreement except in case where such specific person is authorized for above purposes through a provision made in the partnership deed/Memorandum of Understanding/Article of Association/Board resolution, failing which tender shall be summarily rejected.

A separate power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, shall be submitted after award of work, specifically authorizing him/them to deal with all other contractual activities subsequent to signing of agreement, if required.

Note: A Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

9. Employment/Partnership etc. of Retired Railway Employees:

(a) Should a tenderer

i) be a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, OR

ii) being partnership firm / joint venture (JV) / registered society / registered trust etc have as one of its partners/members a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, OR

iii) being an incorporated company have any such retired Engineer of the gazetted rank or any other gazetted officer working before his retirement as one of its directors
AND

in case where such Engineer or officer had not retired from government service at least 1 year prior to the date of submission of the tender

THEN

the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

b) In case, upon successful award of contract, should a tenderer depute for execution of the works under or to deal matters related with this contract, any retired Engineer of gazetted rank or retired gazetted officer working before his retirement in the Engineering

or any other department of any of the railways owned and administered by the President of India for the time being, and now in his employment, then the tenderer will ensure that retired Engineer or retired gazetted officer had retired from government service at least 1 year prior to the date of his employment with tenderer and in case he had retired from service within a year then he possesses the requisite permission from the President of India or any officer, duly authorized by him in this behalf, to get associated with the tenderer.

c) Should a tenderer or Contractor being an individual, have member(s) of his family or in the case of partnership firm/ company / joint venture (JV) / registered society / registered trust etc. one or more of his partner(s)/shareholder(s) or member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of the railway, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.

Note: -If information as required as per 16.a), b), c) above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of the Standard General Condition of contract.

10. The works to be undertaken by the contractor shall inter-alia include the following:

- (i) Detailed design of equipments including shop testing of such equipments contained in technical specifications.
- (ii) Complete manufacture including shop testing of the said equipment(s). Providing engineering drawings, Technical data, operating manuals, catalogs, spare parts list, etc. for the said equipments as erected at site.
- (iii) Packing and transportation of said equipments from the manufacturer's factory to the work site in North Eastern, Railway.
- (iv) Receipt including unpacking of the said equipment(s) at the site storage, preservation and conservation at site of work in North Eastern Railway.
- (v) Insurance of complete work governed by the contract including the said equipment(s) from the time of dispatch from the manufacturer's factory till the completion of work.
- (vi) Unpacking, checking for damage / shortage, cleaning and erection.
- (vii) Commissioning test.
- (viii) Warranty obligations.

11. Quantities in schedule annexed to Contract- The quantities set out in the accepted schedule of rates with item of work 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 full-fulfillment of his obligations under the contract.

12. New item of work – If during execution of the work, the contractor is called upon to carry out any new item of work not included in schedule of prices, the contractor shall execute such work at such prices as may be mutually agreed with the purchaser before/after commencement or during execution of work contract.

13. LOCAL CONDITIONS:

It will be imperative on each tenderer to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the contract and cost of the stores. The Railway 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 completion of work on account of any local condition or factor shall be entertained after the offer is accepted.

The intending tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender papers are adequate and all inclusive, for the completion of works to the entire satisfaction of the Railways.

In the event of the intending tenderer desiring to have a field survey before furnishing his quotations, he may apply to Railways for permission in this regard. The Railways will give such permission in writing but all the expenses in this regard will be borne by the tenderers.

The intending tenderer is advised to study the tender papers carefully, any submission of a bid by the tenderers 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 offer. Failure to adhere to anyone of these instructions may render his offer liable to be ignored without any references.

If there is availability of any material/s with the Railways then the Railway may supply the item although it is included in the schedule of supply as per the contract. In such case the Railways is not bound to accept supply of that material/s from the contractor. The scheduled price for the same will not be paid to the contractor accordingly.

14. COMPLIANCE:

Offer should be fully in accordance with the drawings and specifications. Details of variations from the drawing and specifications, if any, should clearly be indicated and in such an event, a certificate from the user must be furnished to the effect that the offered product performs the requisite functions satisfactorily. The names of such users should also be indicated.

Tenderer should give details of supplies and the customer's along with their performance certificate.

Should the tenderer wish to depart from the provision of the specifications and drawings on account of any reason he should clearly draw attention in his offer to the proposed point of deviation and submit complete information with justification, drawings and specifications to explain the related merits of his proposal viz-a-viz the stipulations laid down in tender documents for appreciation and understanding of Railways. In the absence of any such deviation it will be deemed that the tenderer is fully satisfied with the intents of specifications and drawings and shall comply with the statutory provisions laid in the tender documents. The statement of deviation, if any should be given in the shape of proforma enclosed at Annexure-II of GCC-2022 or latest.

15. INTEGRATION WITH EXISTING WORKS:

The tenderer should keep in mind, visit the location of works, take due note and give proper consideration of integrating the new works (sometimes on replacement account) with the existing system.

The provision of casting of foundations has to be so sequenced and coordinated that due to this no disruption at all, is caused to the functioning of the existing system. A sequenced schedule of installations, erection and commissioning of equipments should be drawn by the tenderer after visiting the site. It should be based on pragmatic assessment of quantum of work and time schedule required to complete the work. The scheme should be submitted along with the offer as Annexure entitled "Integration Scheme".

Since electrical work requires shutdowns invariably therefore the tenderer should keep due allowance in drawing the "Integrated scheme" so that completion of work is not delayed beyond the stipulated period of completion.

The rates for different items of work should be quoted after keeping these aspects in view.

16. ELECTRIC SUPPLY:

The contractor shall make his own arrangements for electricity required by him for the purpose of execution of the contract. however, the Railway shall arrange the required power supply for testing and commissioning of the works completed by the contractor.

17. SCHEME OF WORK AND PROGRESS REPORT

The Contractor shall within seven (7) days of the date of award of the contract submit a BAR/PERT CHART and scheme for the execution of key phases of the such as design, procurement & casting of concrete foundations etc. The contractor shall indicate in the form of notes of the assumptions and the basis adopted for the preparation of this BAR/PERT CHART.

The contractor shall submit a monthly progress report detailing the actual progress made in all activities as compared to the above BAR/PERT CHART. The monthly progress report shall indicate the reasons for the variations if any between the schedule quantities and actual progress, the action proposed and corrective measures required wherever necessary.

18. INSPECTION

All the materials, equipments, fittings and components will be subjected to quality control program of the manufacturer, being a part of the quality assurance program of the contractor. The materials will be inspected by the purchaser or his representative or by a representative of RITES/RDSO either at the manufacturer's works or at the contractor's depot. The purchaser or his representative shall have the right to be present during all stages of manufacture and shall be afforded free of charge all reasonable facilities for inspection and testing as well as to examine the stage inspection report of the manufacturer's in addition to the quality audit which the

contractor may institute as a part of his program so as to satisfy himself that the materials are in accordance with specifications, approved drawings and designs & purchase's prescribed quality assurance standards.

The works shall be accepted after inspection by the Railways particularly for the following aspects.

- i. Setting out of Electrical equipment.
- ii. Approval of quality of works.
- iii. Erection, testing & commissioning as per the approved drawings and the Indian Standard codes of practice.
- iv. Safety works to conform to Indian Electricity Rules. These aspects shall be checked during periodical inspections. Any defects, deficiencies noticed in the works will be recorded in the site order book so that the contractor acts upon it without loss of time.

The cost of the inspection will be on Railway accounts subject to any other provisions contained hereunder or elsewhere in contract. One week's notice must be given by the contractor to the Inspecting Officer to take up the inspection.

The contractor shall provide without any extra cost to the Railways all materials, equipment's, machine, plant, tools and labour etc of every kind of which the Railway's inspecting officer may consider necessary for any test and examination to be made at site or elsewhere.

All the equipments and material shall be of best quality and will be tested/inspected by the Engineer or Engineer's representative at site of work and approved before they are installed/used in the works covered in the contract. If the contractor uses any equipment's materials without the prior approval of Railways these are liable to be rejected.

The decision of the Inspecting Officer with regard to the acceptance or rejection of the equipment/work will be final and binding on the contractor.

19. Removal of Improper Work and Materials: The Engineer or the Engineer's Representative shall be entitled to order from time to time:

- (a) 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.
- (b) The substitution of proper and suitable materials, and
- (c) the removal and proper re-execution, notwithstanding any previous tests thereof or on account 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 Railway shall be entitled to rescind the contract under Clause 62 of these conditions.
- (d) The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding

upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.

20. INSPECTION & REJECTION:

All works connected with this contract shall be done in accordance with the standard established methods of inspections and shall comply with relevant Indian Electricity Rules, ISI code, RDSO /CORE Specification and Standards.

21. CONSEQUENCE OF REJECTION:

The works which are to be rejected if any by the inspecting officer of the Railway, the contractor shall replace such rejected equipments/assemblies of the work forthwith but in any event not late than a period of one week from the date of rejection. The contractor shall bear all the cost of such replacement including freight etc but without being entitled to any extra time on this account.

22. COMMISSIONING TESTS:

As soon as the installations are ready for commissioning, the contractor shall arrange for all the tests/inspections as per the requirements of the relevant ISS and/or I.E. rules and advise the Railways. Railways shall witness the tests and carry out inspection independently and also jointly with other concerned agencies wherever necessary, only after the works pass the required tests and inspection, it should be commissioned with the approval of Senior Divisional Electrical Engineer (TRD), North Eastern Railway, DRM Office, Varanasi or his authorised representative.

23. WARRANTY:

The contractor shall warranty that all the works executed under this contract shall be free from all defects and faults in material design workmanship and manufacture and shall be of acceptable standards for the contracted work and in full conformity with the technical specifications, drawings and other contract stipulations.

This warranty clause will not apply to defects arising from designs furnished or specified by the Railways and for which contractor has disclaimed responsibility in writing within three (3) months from the date of the letter of acceptance of tender.

The contractor is not absolved for the responsibility of the successful functioning of the work carried out by him for which specifications are indicated by the Railway in the tender documents. In case the specifications are apprehended to be inadequate for achieving designed conditions, the tenderer should indicate the same specifically at the time of submission of offer or before giving sufficient time to the Railways for taking corrective action. Once the tenderer accepts the designs, the warranty shall be complete and extended to all materials and equipments governed in the work.

This warranty shall survive not only till the acceptance of the work but shall expire 12 (twelve) months from the date of acceptance of the complete work by the Railway except in respect of defects notified to the contractor before the expiry of the warranty period. Any approval or acceptance by the Railways at any stage of the work contracted shall not in any way absolve the contractor's liability under this warranty.

The contractor's liability in respect of any complaint defect and/or claim shall be limited to the execution, installation and erection of replacement parts free of charges, or the repairs of defective parts only to the extent that such replacement or repairs are attributable which arise from faulty workmanship or design or material in the manufacturer of the equipment/stores, and/or negligence in any manner and also in the event of failure of the equipment to perform as intended.

The contractor shall if required, replace, repair, execute and or install the goods or such portion thereof as is rejected by the Railway free of cost at site or at the option of the Railways. The contractor shall pay the Railways the value thereof and such other expenditure and damage as may arise by reason of the breach of the condition therein specified.

All replacement and repairs that the Railways shall call upon the contractor to deliver or perform under this warranty shall be delivered and performed by the contractor within three (3) months promptly and satisfactorily. In cases where such replacement, repair, execution and/or installation takes place during the warranty period the provision of the warranty clause shall apply to that portion to replace or renew until the expiry of twelve (12) months from the date of such replacement, repair, execution and/or installation. This extended period shall hereinafter be referred to as "extended warranty period."

If any defect is not remedied satisfactorily within the above mentioned three (3) months, the Railway may proceed to do the work at Contractor's risk and also without prejudice to any other rights of the contractor under the contract.

If, the contractor so desires, the rejected parts can be taken over by him or his representatives for disposal as he deems fit within a period of three (3) months from the date of replacements of rejected goods/parts. After the expiry of this period, no claim whatsoever shall lie on the Railways.

(1) The Railway, may at its discretion recover the ground rent for the goods/parts which have been rejected during the warranty period for the specified period of three months, if the rejected materials are not taken over within that period (three (3) months) by the contractor or his representative.

The warranty herein, contained shall not apply to material which have been repaired or altered by the Railway or on its behalf in any way without the consent of the contractor so as to affect its strength, performance and liability or to any defects to any part due to misuse negligence or accident and to items of normal wear and tear to be specifically mentioned by the contractor in his offer and got accepted by the Railways. The decision of the Railway in regard to contractor's liability and the amount if any payable under this warranty shall be final and conclusive.

24. REJECTION OF TENDERS WITHOUT EARNEST MONEY:

Tenders unaccompanied with the earnest money will be summarily rejected.
Exception is not permitted in any circumstances.

25. INDIRECT TAXATION

In the event of any new indirect taxation being imposed after the date of opening of

tender and of being of such a nature that the contractor has to bear additional cost of material directly on account of such additional taxation the purchaser shall reimburse the contractor for such additional costs on receiving satisfactory proof that such taxation was legally leviable and that the contractor has actually incurred the additional costs.

26. Force Majeure Clause: If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics/pandemics, strikes, lockouts or acts of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other within 30 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 damages against the other in respect of such non-performance or delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.

26A Extension of Time in Contracts: 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:

(i) **Extension due to Modification:** 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 cause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.

(ii) **Extension for Delay not due to Railway or Contractor:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's employees or by other Contractor employed by the Railway under Sub-Clause (4) of Clause 33 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 threatened by or dispute with adjoining or to 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 Railway 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 provided in the original contract itself.

(iii) Extension for Delay due to Railways: In the event of any failure or delay by the Railway 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 Railway 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 Railway may grant such extension or extensions of the completion date as may be considered reasonable.

The Contractor shall indicate the period for which the work is likely to be delayed and shall seek extension of time as may be considered necessary under clause 26A(i) or/and 26A(ii) or/ and 26A(iii) above, as soon as the cause thereof shall arise and, in any case, not less than 15 days before the expiry of the date fixed for completion of the works. The Engineer shall consider the same and shall grant and communicate 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 provided in the original contract itself.

The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.

26B Extension of Time with Liquidated Damages (LD) 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 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 26 and 26-A, the Railway 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 (Proforma at Annexure-VII) as the Engineer may decide. On such extension the Railway 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 for each week or part of the week, a sum calculated at the **rate of Liquidated Damages as decided by Engineer, between 0.05% to 0.30% of contract value of the works for each week or part of the weeks.**

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 5%** of the contract 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.

Provided further, that if the Railway 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 Railway 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 39 of these Conditions, whether or not actual damage is caused by such default.

NOTE:

In a contract, where extension(s) of time have been allowed once under clause 26B, further request(s) for extension of time under clause 26A can also be considered under exceptional circumstances. Such extension(s) of time under clause 26A shall be without any Liquidated damages, but the Liquidated damages already recovered during extension(s) of time granted previously under clause 26B shall not be waived. However, Price variation during such extension(s) shall be dealt as applicable for extension(s) of time under clause 26B.

26C Bonus for Early Completion of Work: In case of open tenders having value more than Rs 20 crore and original period of completion 12 months or more, when there is no reduction in original scope of work by more than 10%, and no extension granted on either railway or Contractor's account, Contractor shall be entitled for a bonus of 1% for each 30 days early completion of work. The period of less than 30 days shall be ignored while working out bonus. The maximum bonus shall be limited to 3% of original contract value. The completion date shall be reckoned as the date of issuance of completion certificate by engineer.

27.(1) Illegal Gratification: Procuring authorities as well as bidders, contractors and consultants should observe the highest standard of ethics should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:

- i) "Corrupt practice": making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement Process or contract execution;
- ii) "Fraudulent practice": any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;
- iii) "Anti-competitive practice": any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of The Competition Act,

2002, between two or more bidders, with or without the knowledge of the procuring entity, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;

iv) "Coercive practice": any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process or affect the execution of a contract;

v) "Conflict of interest" (COI): any personal, financial, or business relationship between the bidder and any personnel of the procuring entity who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of the procuring entity directly or indirectly;

vi) "Undue Advantage": improper use of information obtained by the bidder from the procuring entity with an intent to gain an unfair advantage in the procurement process or for personal gain. This also includes if the bidder (or his allied firm) provided services for the need assessment/procurement planning of the tender process in which he is participating;

vii) "Obstructive practice": materially impede the procuring entity's investigation of a procurement process either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to such investigation or from pursuing the investigation; or by impeding the procuring entity's rights of audit or access to information;

27.(2) Punitive Provisions:-

Without prejudice to and in addition to the rights of the procuring entity to other penal provisions as per the bid documents or contract, if the procuring entity comes to a conclusion that a (prospective) bidder/contractor directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the procuring entity may take appropriate measures including one or more of the following:

i) If his bids are under consideration in any procurement.

- a) Forfeiture or encashment of bid security;
- b) calling off of any pre-contract negotiations; and
- c) rejection and exclusion of the bidder from the procurement process

ii) If a contract has already been awarded.

- a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the procuring entity;
- b) Forfeiture or encashment of any other security or bond relating to the procurement;

c) Recovery of payments including advance payments, if any, made by the procuring entity along with interest thereon at the prevailing rate;

iii) Provisions in addition to above:

a) Removal from the list of enlisted contractors and banning/debarment of the bidder from participation in future procurements of the procuring entity for a period not less than one year;

b) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;

c) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

Any question or dispute as to the commission of any such offence or compensation payable to the Railway under this Clause shall be settled by the General Manager of the Railway, in such a manner as he shall consider fit & sufficient and his decision shall be final & conclusive.

28.(1) Security Deposit: The Security Deposit shall be 5% of the contract value. The Bid Security submitted by the Contractor with his tender will be retained/encashed by the Railways as part of security for the due and faithful fulfillment of the contract by the Contractor. Provided further that, if Contractor submits the Cash or Term Deposit Receipt issued from a Scheduled commercial bank of India or irrevocable Bank Guarantee Bond from a Scheduled commercial bank of India, either towards the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security, to the Contractor.

Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, the Railway may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.

The Irrevocable Bank Guarantee submitted towards Security deposit shall be initially valid up to the stipulated date of Maintenance period plus 60 days and shall be extended from time to time, depending upon extension of contract granted in terms of Clause 26A and 26B of the Standard General Conditions of Contract.

Note: Security Deposit deposited in cash by the Contractor or recovered from the running bills of a Contractor or submitted by contractor as Term Deposit Receipt(s) can be refunded/returned to the contractor, in lieu of irrevocable Bank Guarantee bond issued from scheduled commercial bank of India, to be submitted by him, for an

amount equal to or more than the already available Security Deposit, provided however that, in a contract of value less than Rs. 50 Crore, such refund/ return of the already available Security Deposit is permitted up to two times and in a contract of value equal to or more than Rs. 50 Crore, such refund / return of the already available Security Deposit is permitted up to three times.

28.(2) (i) Refund of Security Deposit: Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:

- (a)** Final Payment of the Contract as per clause 51.(1) **and**
- (b)** Execution of Final Supplementary Agreement or Certification by Engineer that Railway has No Claim on Contractor **and**
- (c)** Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1), in case applicable.

(2) (ii) Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 39 (1) of this condition, the Security Deposit already with railways under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 39 (1) of this condition, the Security Deposit shall not be forfeited.

28.(3) No interest shall be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 29 (b) of this clause will be payable with interest accrued thereon.

29. Performance Guarantee:-

The procedure for obtaining Performance Guarantee is outlined below:

(a) The successful bidder shall have to submit a Performance Guarantee (PG) within 21 (Twenty one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty one) days and upto 60 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 12% per annum shall be charged for the delay beyond 21(Twenty one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway, submission of PG can be accepted on the next working day.

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit Earnest Money Deposit and other dues payable against that contract. In case a tenderer has not submitted Earnest Money Deposit on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect.

The failed Contractor shall be debarred from participating in re-tender for that work.

(b) The successful bidder shall submit the Performance Guarantee (PG) amounting to 5% of the original contract value and Additional Performance Guarantee as per clause 29 (h) in any of the following forms

- (i) A deposit of Cash;
- (ii) Irrevocable Bank Guarantee;
- (iii) Insurance Surety Bond as per Annexure – XVII.

Note:

The case of extension of Date of completion, selected bidder needs to submit extended Insurance Surety Bond/Fresh Insurance Surety Bond/fresh Performance Security, in any form as given above, before expiry of existing Insurance Surety Bond.

- (iv) Government Securities including State Loan Bonds at 5% below the market value;
- (v) Deposit Receipts, Pay Orders, Demand Drafts and Guarantee Bonds. These forms of Performance Guarantee could be either of the State Bank of India or of any of the Nationalized Banks;
- (vi) Guarantee Bonds executed or Deposits Receipts tendered by all Scheduled Banks;
- (vii) Deposit in the Post Office Saving Bank;
- (viii) Deposit in the National Savings Certificates;
- (ix) Twelve years National Defence Certificates;
- (x) Ten years Defence Deposits;
- (xi) National Defence Bonds and
- (xii) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of FA&CAO, Gorakhpur payable at Varanasi. (free from any encumbrance) may be accepted.

(c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.

(d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.

(e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.

(f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.

(g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India is entitled under the contract (not withstanding 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 Guarantee as described herein above, in which event the Engineer may claim the full amount of

the Performance Guarantee.

- (ii) Failure by the Contractor to pay President of India any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.
- (iii) The Contract being determined or rescinded under clause 39 of these conditions.

(h) If a tender is accepted on the quoted rates of bidder which is below the advertised tender value, an additional performance security shall be submitted by the bidder as below:

Bid quoted in % of advertised cost	Additional Performance Guarantee (%)
Below 0 – 5% (inclusive)	Nil
Below 5%	5%

30. JVs/Consortiums/MOUs - Not applicable.

31. Participation of Partnership Firms in works tenders:

The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.

The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized prior to date of tender opening as per the Indian Partnership Act.

Separate identity/name should be given to the partnership firm. The partnership firm should have PAN/TAN number in its own name and PAN/TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.

Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified/alterd/terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from Railway and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the Railways and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after opening of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full EMD shall be forfeited.

If any Partner/s withdraws from the firm after opening of the tender and before the award of the contract, the offer shall be rejected and EMD of the tenderer will be forfeited. If any new partner joins the firm after opening of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case

the tenderer fails to inform Railway beforehand about any such changes/modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of General Conditions of Contract. A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.

The tender form shall be submitted only in the name of partnership firm. The EMD shall be deposited by partnership firm through e-payment gateway or as mentioned in tender document. The EMD submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.

One or more of the partners of the firm or any other person (s) shall be designated as the authorized person (s) on behalf of the firm, who will be authorized by all the partners to act on behalf of the firm through a "Power of Attorney", specially authorizing him / them to submit & sign the tender, sign the agreement, receive payment, witness measurements, sign measurement books, make correspondences, compromise / settle / relinquish any claim (s) preferred by the firm, sign "No Claim Certificate", refer all or any dispute to arbitration and to take similar such action in respect of the said tender / contract. Such "Power of Attorney" shall be notarized / registered and submitted along with the tender.

On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, Guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.

On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.

In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.

(a) Joint and several liabilities:

The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the Railway for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the Railway during the course of execution of the contract or due to non-execution of the contract or part thereof.

(b) Duration of the partnership deed and partnership firm agreement:

The partnership deed/partnership firm agreement shall normally not be modified/altered/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission

of Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the General Conditions of Contract.

(c) **Governing laws:** The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.

(d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the Railway.

The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:

- (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
- (ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.
- (iii) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of opening of bids, either in their individual capacity or in any firm in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.
- (iv) All other documents in terms of Para 2 of the Tender Form (Second Sheet) above.

Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfillment of the eligibility criteria laid down in Para 2.1 of the Tender Form (Second Sheet) above.

Advances to Contractor –

If specifically provided in Tender Documents of tender having advertised value more than Rs 50 Crores, Railway shall make payment, as an Interest bearing advances, as per Contractor's request. These advances shall carry a simple interest _____ as indicated in the Tender documents. The payment and recovery of such advances shall be made as per manners prescribed in Clause 46.4 of the Standard General Conditions of Contract.

(Signature)

(Designation)

Signature of Tenderer(s) _____ Railway Date _____
Date _____

TENDER FORM (Third Sheet)**Name of Work:** _____**BILL OF QUANTITIES****1. Standard Schedule of Rates (SSOR) Items:**

SL	Item No. of SSOR	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words to be filled by tenderer (₹)	Amount (₹)
1	2	3	4	5	6	7

2. Non Standard Schedule of Rates (SSOR) Items:

SL	Item No.	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words to be filled by tenderer (₹)	Amount (₹)
1	2	3	4	5	6	7

The quantities shown in above Bill of Quantities are approximate and are as a guide to give the tenderer(s) an idea of quantum of work involved. The Railway reserves the right to increase/ decrease and/or delete or include any of the quantities given above and no extra rate will be allowed on this account.

I/We undertake to do the work at % above/below the Standard Schedule of Rates(SSOR) of the Railway as applicable to _____ Division or at the rates quoted above for each item.

Dated _____

Signature of the Tenderer(s)

Note: Columns 1 to 5 shall be filled by the office of the Authority inviting tender. Columns 6 & 7 shall be filled by the Tenderer(s) only when percentage tenders are not invited.

EXECUTION OF WORKS

32.(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.

32.(2) Commencement of Works: The contractor shall commence PSI maintenance work at field, preferably within 30 days but in any case not later than 60 days from issue date of Letter of Acceptance and obtain a letter from Sr.DEE/TRD of respective division duly stating actual date of commencement of subject PSI maintenance work. Accordingly the completion period of contract will be reckoned from date of commencement of work.

32.(3) Accepted Program of Work: The Contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed program 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 organisation (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 program of work amended as necessary by discussions with the Engineer, shall be treated as the agreed program of the work for the purpose of this contract and the Contractor shall endeavor to fulfill this program 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.

32.(4) Setting out of Works: The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall cooperate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error 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 cost 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. The Contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.

33.(1) Compliance to Engineer's Instructions: 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.

33.(2) Alterations to be Authorized: No alterations in or additions to or omissions or

abandonment of any part of the works shall be deemed authorised, except under instructions from the Engineer. The Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.

33.(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 option of the Railway.

33.(4) Separate Contracts in Connection with Works: The Railway shall have 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 upon 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 an 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.

34. Instruction 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:

(a) 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.

(b) 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

35.(1) Adherence to Specifications and Drawings: The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If 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 ensuing therefrom and shall be responsible for all loss to the Railway.

35.(2) Drawings and Specifications of the Works: 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.

35.(3) Ownership of Drawings and Specifications: All Drawings and Specifications and copies thereof furnished by the Railway to the Contractor are deemed to be the property of the Railway. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the Contractor to the Railway on completion of the work or termination of the Contract.

35.(4) Compliance with Contractor's Request for Details: The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request, 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.

35.(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 Chief Engineer who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.

36. RAILWAY STORES:

If any material which the contractor has to arrange for himself is supplied by the purchaser either at the contractor's request or suo moto in order to prevent any possible delay in the execution of the works, likely to occur, due to contractor's inability to make adequate arrangements for supply thereof or otherwise recovery will be made from contractor's bill at the issue rate or market rate prevailing at the time of supply, whichever is higher plus 5% on account of initial freight and 2% on account of incidental charges together with supervision charges @ 12.5% on the total cost inclusive of material, freight and incidental charges. Transportation from Railway Stores to Contractor's store/site of work shall be born by the contractor. If, however material required by the Contractor is not available in purchaser's stock or the purchaser decides not to supply the same, be that for whatever reason purchaser shall not be bound to arrange for the supply at cost quoted above nor will this be accepted as an excuse for delay in execution of works.

Note : If the contractor runs short of material and such materials are available in the purchaser's stock, the material may be supplied by the purchaser in exceptional cases with the specific approval of the competent authority on loan to the contractor who will return these on receipt of his stipulated supplies within two months or earlier, if the completion period is less, which ever is earlier. In case the contractor fails to return the material within the stipulated period from the date of loaning of material, the material loaned earlier would be treated as sold. The recovery of the value of sold material would be as per clause 35 This recovery would be made from any subsequent bill submitted by the contractor either "on account" or for progress payment.

37. SUB CONTRACTORS:

The contractor may sublet a part of the works under this contract and enter into contract with suppliers for supply of materials.

The name of all sub-contractors proposed to be employed for execution of works or any part thereof including manufacture of components and fittings shall be submitted by the contractor to the purchaser and got approved by him before the contractor enters into an agreement with the sub-contractor for the purpose.

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

DETERMINATION OF CONTRACT

38.(1) Right of Railway to Determine the Contract: The Railway shall be entitled to determine and terminate the contract at any time should, in the Railway'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 Railway of such determination and the reasons there for shall be conclusive evidence thereof.

38.(2) Payment on Determination of Contract: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Railways shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The Railway's decision on the necessity and propriety of such expenditure shall be final and conclusive.

38.(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.

39.(1) Determination of Contract owing to Default of Contractor:

If the Contractor should:

- (i) Becomes bankrupt or insolvent, or
- (ii) Make an arrangement for assignment in favour of his creditors
- (iii) Agree to carry out the contract under a Committee of Inspection of his creditors, or
- (iv) Being a Company or Corporation, go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or
- (v) Have an execution levied on his goods or property on the works, or
- (vi) Assign the contract or any part thereof otherwise than as provided in Clause 7 of these Conditions, or
- (vii) Abandon the contract, or
- (viii) Persistently disregard the instructions of the Engineer, or contravene any provision of the contract, or
- (ix) Fail to adhere to the agreed program of work by a margin of 10% of the stipulated period, or
- (x) Fail to Execute the contract documents in terms of Para 8 of the Instructions to Tenderers.
- (xi) Fail to submit the documents pertaining to identity of JV and PAN in terms of Para 25 of Tender Form (Second Sheet) of Annexure I available in the Instructions to Tenderers.

- (xii) Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer notice to the effect that the said materials or works have been condemned or rejected under Clause 25 and 27 (in GCC) of these Conditions, or
- (xiii) Fail to take steps to employ competent or additional staff and labour as required under Clause 26 in GCC) of these Conditions, or
- (xiv) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Clause 28 of these Conditions, or
- (xv) 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 the Railway or to any person on his or on their behalf in relation to the execution of this or any other contract with this Railway.
- (xvi) Fail to adhere to the provisions of Para 27 (1) of Tender Form (Second Sheet) of Annexure I of the Instructions to Tenderers, or provision Clause 59(9) of these Conditions.
- (xvii) Submits copy of fake documents / certificates in support of credentials, submitted by the tenderer.

Then and in any of the **said Clause**, the Engineer on behalf of the Railway may serve the Contractor with a notice (Pro-forma at Annexure-IX) in writing to that effect and if the Contractor does not within seven 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 of the entire satisfaction of the Engineer, the Railway shall be entitled after giving 48 hours' notice (Pro-forma at Annexure- X or XII, as the case may be) 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 after expiry of 48 hours' notice, a final termination notice (Pro-forma at Annexure-XI or XIII, as the case may be) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices (Pro-forma at Annexure- IX, XII and XIII), only in cases where progress of work is more than or equal to 80% of the original scope of work.

39.(2) Right of Railway after Rescission of Contract owing to Default of Contractor: In the event of any or several of the courses, referred to in Sub-Clause (1) of this Clause, 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 work thereto for actually performed under the contract unless and 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) In the contract which has been rescinded as a whole, the Security

Deposit already with railways under the contract shall be en-cashed/ forfeited and the Performance Guarantee already submitted for the contract shall be en-cashed. The balance work shall be got done independently without risk & 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 a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

Further the authorized representative of failed Contractor cannot be accepted as authorized representative in new contract.

(c) In the contract rescinded in part or parts,

(i) The full Performance Guarantee available for the contract shall be recovered. No additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract. The contract value of part terminated contract stands reduced to the balance value of work under the contract.

(ii) The Security Deposit of part terminated contract shall be dealt as per clause 28(2) of these Conditions.

(iii) The defaulting Contractor shall not be issued any completion certificate for the contract.

(iv) The balance work shall be got done independently without risk & 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 a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV/Partnership firm.

(v) Further the authorized representative of failed Contractor will not be accepted as authorized representative in new contract.

(d) The Engineer or the Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and 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.

(e) The Engineer shall as soon as may be practicable after removal of the Contractor fix and determine ex-parte 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) had at the time of rescission 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 and what was the value of any unused, or partially used materials, any constructional plant 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.

40. WORKS BY OTHER AGENCIES:

Any other works undertaken at the same time by the purchaser or the Railway direct or through some other agency at the same site where the contractor is carrying out his work will not entitle the contractor to prefer any claim, regarding any delays or hindrance he may have to face on this account. The contractor shall comply with any instructions which may be given to him by the purchaser in order to permit simultaneous execution of his own works and of those undertaken by other contractors or the Railway without being entitled on this account to any extra charge.

41. ACCESS TO WORK SITE:

The purchaser shall afford access to the site for the purpose of this contract to the contractor at all reasonable times. In the execution of the work, no person other than the contractor or his only appointed representatives or approved sub contractor and bonafide workman shall have access to site. Access to the site of work at all times shall be allowed by contractor to officials or approved representative of the purchaser or to Railway staff for purpose of maintenance.

The purchaser or his authorised representative shall have the right to refuse admission to the work site to any person employed by the contractor to whom the purchaser or his engineer may consider undesirable.

The engineer or his representative shall be at liberty to object to the presence of any representative or other person employed by the contractor in or about the works on the ground of misconduct, incompetence or negligence, the contractor on receipt of notices of such objection in writing, shall forthwith remove the person so objected to and provide in his place another competent person a shall not allow such person to enter the site of work subsequently. The purchaser will not be able to pay any cost or damage on this account.

42. INSURANCE:

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 status in respect of accidents to person who shall be employed by the contractor in or about the site of the contractor's office 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.

INSURANCE OF MATERIALS AND INSTALLATIONS:

The contractor shall take out and keep in force a policy or policies of insurance for all materials in storage, under erection, and/or erected, until such materials are provisionally handed over to the purchaser. For this purpose the materials shall be deemed to have been provisionally handed over when provisional acceptance certificate is issued as per clause 29.

The contractor shall not be liable for losses or damages to equipments erected, in the course of erection or in stores at the contractors depot 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, if required by the purchaser be made good by the contractor at the cost of the purchaser.

The contractor should, however, insure the materials brought to site against risks in consequence of war and invasion as required under the emergency risks (goods). Insurances Act 1962 from time to time. The amount of such insurance preemie paid by the contractor will be reimbursed to him by the purchaser on submission of bills in proof of payments of such insurances preemie.

NOTE:- The insurance premium under the emergency risks (goods) insurance Act 1962 are reimbursable to the contractor only for the preemie paid by him and not for any preemie paid by any of his sub-contractor. The contractor shall have all insurance covers in connection with the contract with the Life Insurance Corporation of India or any government approved insurance company. The contractor's liability to meet 3rd party claims of the type outlined above will be applicable only in case where accidents have been caused by bad design, workmanship material or negligence on the part of the contractor and further the liability of the contractor will be limited as per provision of law for any one accident. The contractor shall be responsible for all repairs and rectification of damage to the plant erected or under erection due to accident or any other cause until the plant is provisionally handed over to the purchaser.

43. DEFECTIVE EQUIPMENTS TO BE REPLACED:

Notwithstanding the issue of a provisional acceptance certificate, partial or full use of any equipment if the complete plant or any portion thereof before it is finally taken over at the end of the guarantee period, found to be or to have become defective in course of usage by the railway due to faulty materials, design or workmanship or to otherwise to fulfill the requirement of the contract and its purpose, the purchaser shall normally give the contractor prompt notice setting the particulars of such defects or failure and the contractor shall rectify the defects or modify or replace the equipment as may be directed by the purchaser's engineer at his own cost in all respect to make it comply satisfactorily with the said notice upon him or should time not permit for service of such notice the purchaser may repair or reject, replace the whole or part of such defective equipment, as the case may be, at the cost of contractor. The contractor's full liability under this clause shall be satisfied by the payment to the purchaser of the extra total cost any of such replacement delivered and erected as provided for in the original contract, such defective equipment within a reasonable time, the contractor's liability under this clause shall be satisfied by the repayment by the contractor all moneys paid by the purchaser to him in respect of such rejected equipment Rejected/defective material shall be returned to the

contractor to the extent possible.

44. FINAL ACCEPTANCE:

The final acceptance of the entire equipment installed shall take effect from the date of expiration of the period of guarantee as defined in Clause 12 provided the installations provisionally accepted are still in perfect working order.

If on the other hand the installations are not in the perfect working order at the end of the guarantee period the purchaser may either extend the period of guarantee until necessary works are carried out by the contractor, or carry out these works or have them carried out on behalf of the contractor and at his expense. A certificate of final acceptance shall then be issued by the purchaser, which will terminate the contract.

VARIATIONS IN EXTENT OF CONTRACT

45. Modification to Contract to be in Writing: In the event of any of the provisions of the contract required to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the Railway 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 Railway unless and until the same is incorporated in a formal instrument and signed by the Railway and the Contractor, and till then the Railway shall have the right to repudiate such arrangements.

45.(1) Powers of Modification to Contract: The Engineer on behalf of the Railway 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.

45.(2) (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 upto 25% of the quantity originally contracted, except in case of foundation work.

(ii) 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 25% variation in quantity of individual item of works.

(iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates

(a) Quantities operated in excess of 125% but upto 140% of the agreement quantity of the

- concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
- (b) Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
- (c) Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
- (d) Variation to quantities of Minor Value Item:

The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original agreement value.

d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;

d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;

d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

(iv) In case of earthwork, the variation limit of 25% shall apply to the gross quantity of earthwork and variation in the quantities of individual classifications of soil shall not be subject to this limit.

(v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

46.(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 therefor 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-39 of GCC-2022 or latest.

47. Safety measures –

The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the Railway premises, but shall then

confirm to the rules and regulations of the Railway. If and when, in the course of the work there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway siding and premises, the contractor shall apply in writing to the purchaser to provide necessary protection i.e. Flagman, Flag etc. for protection of working persons near / on the track. The purchaser will, however, decide as to whether it is necessary to post such flagmen for various types of work and also the number of such men required to protect the gang or gangs of contractor's staff working at site. The purchaser shall remain indemnified by the contractor in the event of any accident occurring in the normal course of work,

arising out of the failure of contractor or his men to exercise reasonable precaution at all places of work. The flagmen will be appointed by the purchaser and no expense on this account will be charged from the contractor.

The contractor shall abide by all Railway regulations in force for the time being and ensure that the same are followed by his representatives, Agents, sub-contractors or workmen. He shall give due notice to his employees and workers about provision of this para.

While working within station limits, specially on passenger platforms, the contractor shall ensure that at all times sufficient space is left for free movement of passenger traffic. He must cover and / or barricade the excavations carried out in such areas and continue to maintain these till the work is completed, with a view to avoid any accident to public or to Railway staff.

The works must be carried out most carefully without any infringement of the Indian Railway Act or the General and Subsidiary Rules in force on the Railway in such a way that they do not hinder Railway operation or affect the proper functioning of or damage any Railway equipment, structure or rolling stock except as agreed to by the purchaser, provided that all damage and disfiguration caused by the contractor to any Railway property must be made good by the contractor at his own cost failing which cost of such repairs shall be recovered from the contractor.

If safety of track or track drainage etc. is affected as a consequence of works undertaken by the contractor, the contractor shall take immediate steps to restore normal conditions. In case of delay, the purchaser shall, after giving due notice to the contractor in writing, take necessary steps and recover the costs from the contractor.

Moreover, if any time the works to be carried out directly concern the safety of trains, the contractor's staff must comply fully with the Railway regulations given to him by the authorized Railway Staff. The contractor's employees and workers may for no reasons operate in installation concerning train safety or train movement. They shall notify the authorized representative of the purchaser who will take all necessary steps in this regard.

The contractor shall be responsible for safe custody of all equipment's till provisional acceptance.

The contractor's liability to meet third part claims of the type outlined above will be applicable only in cases where accidents have been caused by the bad design, workmanship material or negligence on the part of the contractor and further the liability of the contractor will be limited to **Rs. 25.0 (Twenty five) Lakh** for any one accident.

The contractor shall ensure that unauthorized, careless or inadvertent operation of switchgear, which may result in accident to staff and/or damage to equipment, does not occur.

The contractor shall abide by all instructions issued by the purchaser from time to time in connection with protection/safety of track/ Railway installations /personnel as well as quality control. The contractor should not leave the excavated pits un-filled overnight. Due to any reason if it becomes necessary to leave the pit unfilled overnight, it should be filled back effectively with sand bags to the satisfaction of the Purchaser's representative.

In case of accidents/natural calamities involving human lives, purchaser may draft vehicles and equipments of contractor. Payment shall be made as a Non-schedule (NS) item as per the existing norms.

During execution of the work, contractors shall ensure that all safety precautions are taken by their men to protect themselves and site to prevent any untoward incident. In this regard contractor will ensure that adequate number of safety helmets, safety belts, safety jackets with reflective arms band, rope, ladders, emergency light etc. are available at site before the work is actually started. The above list is only indicative and is not exhaustive and safety item will be arranged as per the requirement. Railway reserve the right to stop the work in the absence of proper safety gear and no claim shall be entertained in this regard. Decision of the Engineer-in- charge will be final and binding upon the contractor. The cost of all safety gear is deemed to have been included in the rates quoted and nothing extra is payable under this contract.

48. Traffic Blocks

The Purchaser will make arrangements to obtain traffic blocks (hereinafter referred to as blocks) necessary for the running and operation of work train/light ladder trolleys/track lorries for works to be carried out along or adjacent to the track. The Contractor shall, however, carry out maximum amount of work possible without blocks. Works such as grouting of traction masts, muffing and erection of brackets/cantilevers shall invariably be done without blocks. Installation of droppers and adjustment of traction overhead equipment may also be permitted to be carried out with light ladder trolleys protected by banner flags in accordance with General and subsidiary Rules of Indian Railway.

The Contractor shall, however, arrange a minimum of 2 mobile phones in working condition to improve the communication with the Railway Authorities at site/control/divisional offices at Varanasi and carry out maximum amount of work possible without blocks. Mobile sets shall be returned back to the contractor after completion of work.

Blocks will normally be granted during day light hours, if however, it becomes absolutely necessary, blocks may be granted during night also. The Contractor shall confirm that he will equip himself to carry out all construction during night blocks efficiently by suitable special lighting equipments without any extra cost if required to do so. The blocks granted will ordinarily be of one track at a time.

Block period shall be counted from the time the track is placed at the Contractor's disposal at the work-spot till it is cleared by the Contractor.

Blocks will be subject to normal operating conditions and rules of the Railway. All formalities of exchanging private number etc with the traffic control will be carried out by the Purchaser's staff and for this purpose the Purchaser will depute a representative for each erection gang, who will be responsible for imposing traffic blocks and also removing the same after men, material and equipment have been cleared by the Contractor from running tracks and the same declared safe for traffic by the Purchaser's representative in case of works involving safety of running tracks.

Blocks required for carrying out works necessitated by the thefts, pilferage, accidents or such other incidents, shall be granted by the Purchaser over and above the normal requirements of block.

49. As per Railway Board Letter No.2017/Trans/01/Policy Date08/02/18

Item No.6.0-Multiple L-1- In case of more than one L-1 bidders, tender may be awarded to tenderer having higher Bid Capacity. In case Bid Capacity is also the same, tenderer having done more value of similar work in the last three financial years and in the current financial year upto the date of opening of the tender, may be selected for the award. Instructions with respect to Bid Capacity will follow.

50. As per Railway Board Letter No.2017/Trans/01/Policy Date08/02/18

Item No.8.0- Price Variation Clause(PVC)- The tender Value of this tender is less than Rs.5.00 Crores. Hence The Price Variation Clause(PVC) shall not be applicable. Earlier PVC Clause added in the tender document may be treated as deleted.

51. This tender complies with Public Procurement Policy Order 2017 Date 15.06.2017

(Authority Rly Board's L.No. 2015/RS(G)/779/5 dated 16.03.2018) The Full details of the order can be seen at <http://dipp.nic.in/whats-new/public-procurement-make-india-order-2017>

Tenderer is to abide by the provisions of Payment of Wages Act & Minimum Wages Act in terms of clause 54 and 55 of Indian Railway General Condition of Contract. In order to ensure the same, an application has been developed and hosted on website www.shramikkalyan.indianrailways.gov.in. Tenderer shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The registration/updation of portal shall be done as under

- (a) Tenderer shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration on the portal within 7 days of receipt of such request.
- (b) Contractor once approved by any Engineer, can create password with login ID (PAN No) for subsequent use of portal for all LoAs issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his Letter of Acceptance (LoA) /Contract Agreements on Shramikkalyan portal within 15 days of issue

of any LoA for approval of concerned engineer. Engineer shall updated (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.

- (d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on Shramikkalyan portal on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all station details of engaged contractual labour and payments made thereof after each wage period.

While processing payment of any "On Account Bill" or "Final Bill" or release of "Advances" or "Performance Guarantee / Security deposit", tenderer shall submit a certificate to the Engineer or Engineer's representative that **"I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway's Shramikkalyan Portal at "www.shramikkalyan.indianrailways.gov.in tillMonth Year"**

(As per Railway Board Letter No. 2018/CE-I/CT/4 dated 17.10.2018)

EXPLANATORY NOTES

Explanatory notes are given below for all items given in schedule of jobs for the guidance of tenderer.

GENERAL :

Wherever an item of work covers erection, such item shall include all bolts, nuts and washers of GI/SS etc. as per CORE/RDSO latest specification & drawing.

All works shall be carried out strictly in accordance to the CORE/RDSO drawings, specifications and guidelines if any. However, any modified arrangement if in vogue in N.E. Railway or suggested by Sr.DEE/TRD, the work shall be executed accordingly without any alteration in accepted rates.

Explanatory note for various items of works in the Schedule of item, quantities and jobs are given. The Checking and maintenance of all items of switching Yards/Stations including AOH & POH as case may be shall be carried out in line with relevant Paras of ACTM Vol-II Part-I of Indian Railways with its latest correction slips and as per Latest SMIs if any during contract period OR as per the Procedure in vogue in TRD organization of respective Divisions. No additional payment will be made for any additional man power deployment in attending to latest maintenance instructions if any. In case of disputes between above standards if any, the decision of concerned Sr.DEE/TRD is the final and contractor is bound to act accordingly.

The special condition & Technical specifications for schedule items are enclosed and Tenderer shall go through them thoroughly before submitting offer.

Explanatory Notes

1. Maintenance of Traction Sub-Station (TSS)

a) Yearly Schedule

General Works on TSS as per latest RDSO guide line/HQ instruction:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly and half yearly schedule	
2.	Building	Check for roof cleaning, leakage and condition of building; attend the same if any deficiency. White/color wash the building & painting of doors, gates etc.
3.	Lightning screen	Check & tight strain clamp of wire. If observe any defect attend it.
4.	Structure & fencing	Check structure and fencing for soundness. Paint if required (Paint to be provided by Railway's).
5.	Trenches	Open and clean trenches for possibility of lizard and other insects' entry in control panels / equipments.
6.	Tree & branches	Check & prune the tree branches near to live conductor as required.

Power Transformer RDSO (TI/MI/00038 REV.1 or latest RDSO guide line/ HQ instruction/OEM manual)

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule:	
2.	Transformer tank, bushings, taps changer, radiator and connection joints	Check infrared temperature scanning. Infrared temperature scanning is to be done preferably at the time of full load to find any overheating.
3.	OIP condenser bushing	Measure, record & compare the test for Tan-delta, capacitance and IR (Shearing bridge may be used for tan delta & capacitance). Compare with earlier value. Tan delta test kit may be provided by railway on demand. In case of deviation in reading from standard value inform to railway for further course of action.
4.	Gasket joints of transformer	Check & tight the bolts evenly to avoid uneven pressure in case of leakage only.
5.	Rod gap setting of bushing	Check Rod gap setting Adjust if required
6.	Test oil in transformer	Take oil sample & submit to nearby railway lab/NABL /any approved govt. Lab or as decided by railway. Railway lab charges will bear by railway.
7.	Dissolved gas analysis (DGA) on oil	Oil sample taken for DGA as per RDSO guide line at Annexure 2.04 of ACTM Vol.-II Part-I. Test result compare with the RDSO Guideline.
8.	Working of tap changer switch	Move the tap setting switch up and down full range so that by self-wiping action good contacts are assured.
9.	Relays, alarm & their circuits	Check relay and alarm contacts, their operation, fuses etc. and relay accessories. Clean the components, replace contacts and fuses if necessary. Change the relay setting if necessary.
10.	Control boxes & Terminal boxes/ cable	Check for water tightness of boxes & terminal boxes. Replace gasket, if required.
11.	Temperature indicators	Check for pockets, holding thermometer oil to be replenished, if required.
12.	Dial type oil gauge	Check pointer for free movement. Adjust, if required.
13.	Earth resistance	Measure & record earth resistance by earth tester. Take suitable action, if earth resistance is high.
14.	Buchholz relay	Check operation and measure the insulation resistance by 500V megger and continuity test for contacts with test lock screw set as 5°.

15.	Voltage ratio test with wheat stone bridge, voltmeter	Precautions to be taken as per normal practice being followed for measurements with wheat stone bridge. Compare the trends of the ratio with reference to pre commissioning / factory value/ earlier test. Testing kit may be provided by railway
16.	Winding resistance test with wheat stone bridge voltmeter –ammeter	The test conducted on principal tap by applying DC current. The measured value should be converted to 75°C for conversion. Compare the value with the pre- commissioning/ factory test values. Deviation in absolute value should be less than $\pm 5\%$ of pre- commissioning or factory set value. Testing kit may be provided by railway

132 kV SF- 6 Circuit Breaker as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Connector	Check & clean connector, nuts, bolt, washer and bimetallic strip. Polish the surface and freely place bimetallic strip properly, If provided.
3.	Operation timing	Check & record closing & opening timing with timer as per OEM. Testing kit may be provided by railway
4.	Closing & trip coil	Check & record closing & trip coil parameter as per OEM: i Voltage; ii Watt; iii I R Value Check with measuring instrument (500 V megger & millimeter)
6.	Spring charging motor	Check & record spring charging motor parameter as per OEM: i. Voltage; ii. Watt; iii. I R Value Check with measuring instrument (500 V megger & millimeter)
7.	Contact resistance (CB close position)	Check & record contact resistance of fixed & moving contact with contact resistance meter. Testing kit may be provided by railway
8.	Check the setting of Gas Pressure & note it	

25 kV Vacuum Circuit Breaker / Interrupter (As per TI/MI/0054 or latest RDSO guide line, HQ instruction, OEM manual)

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Auxiliary switches connected in conjunction with mechanism	Check for correct position of the auxiliary switches and carry out few close & open operations. Signals occurred correctly and driving level is correctly positioned auxiliary switch.
3.	Cable glands	Check tightness of the fairleads and locked. The free fairleads must be covered with relative plate and blocked.
4.	Terminal Connectors	Check & clean connector, nuts, bolt, washer and bimetallic strip. Polish the surface and freely place bimetallic strip properly, If provided.
5	Measure & record the Closing & Tripping timing by timer in millisecond as per OEM. Testing kit may be provided by railway	
6	Measure the Contact resistance in Micro ohms as per OEM. Testing kit may be provided by railway	

Auxiliary Transformer as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
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1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Winding continuity	Measure & Record winding continuity on all tapings with multimeter/ 500V megger.
3.	Tap changer	Check the smooth operation of tap changer on all tapings.
4.	Acidity of oil	Check the acidity of transformer oil.
5.	Ratio test	Conduct ratio test by applying AC supply to HV winding and measure the voltage at LV side winding.
6.	Jumpers	Check HT and LT jumpers & lugs for loose & flash mark. Replace if loose & flash.
7.	Painting	Paint to be done, if color of tank is faded/ rusted.
8.	DO fuse wire	Replace the fuse wire with new one.

132 kV/25 kV Potential Transformer as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Duplicate earthing	Check duplicate earth conditions for broken & loose. Attend the same.
3.	Oil testing if possible	Test the oil with BDV tester. If possible.
4.	Ratio test	Conduct ratio test by applying AC supply to HV winding and measure the voltage at LV side winding.
5.	Painting	Paint to be done, if color of tank is faded/ rusted.

Current Transformer 132 kV/25kV as per latest RDSO guide line/HQ instruction/ OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Arching horn gap If provided	Check & measure arching horn gap as required.
3.	Oil testing, if possible	Test the oil with BDV tester.
4.	Painting	Check for painting, if color of tank is faded/ rusted.
5.	Polarity test	Conduct polarity test and check the direction of current.
6.	Ratio test	Conduct ratio test by applying current to HV winding and measure the current LV side winding.

132 kV Isolator Type – Double pole, Triple pole as per latest RDSO guide line/HQ instruction/ OEM Manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule:	
2.	Operation of isolator (Double & Triple pole)	Check the operation of isolator slowly and check for simultaneous operation of blades on the poles and correct alignment of blade tips in the fixed contact jaws of the poles.
3.	Insulation resistance	Measure & record IR values of pedestal and tie rod insulators with 2.5 kV megger.
4.	Operating handle of main blade and earth blade, if provided	Check the locking arrangement to the operating handle of main blades and earth blade.
5.	Bearing	Check & clean the bearings of rotating bushings of insulator and lubricate with grease.
6.	Bus connections and bimetallic strips	Check & clean for tightness, sign of oxidation on bus connections and bimetallic strips correct if necessary. Replace bimetallic, if required

7.	Paint	Check & replace rusted parts and paint the on rusted parts, if any
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25 kV Isolator Type – Single pole, Double pole, and Bipolar as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1	Carry out following work in addition to monthly & half yearly schedule:	
2	Operation of isolator (Double pole)	Check the operation of isolator slowly and check for simultaneous operation of blades on the poles and correct alignment of blade tips in the fixed contact jaws of the poles.
3	Interlocking operation	Check & clean interlocking operation with circuit breaker.
4	Blade tips and fixed contact fingers	Check the condition of the blade tips and fixed contact fingers for any sign of overheating and presents of buffs. Clean the buffs.
5	Clearances of blade	Measure the clearances of blade in open position. Measure and record and adjust if necessary.
6	Insulation resistance	Measure & record IR values of pedestal and tie rod insulators with 2.5 KV megger.
7	Bus connections and bimetallic strips	Check & clean for tightness, sign of oxidation on bus connections and bimetallic strips correct if necessary. Replace bimetallic, if required
8	Paint	Check & replace rusted parts and paint the on rusted parts, if any

120/42 kV Surge Arrester Ref: TI/MI 0041 Rev – 0 or as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule:	
2.	Lightning arrestor (LV side) HT-E	Check, measure & record insulation resistance of each unit of lightning arrestor with by 2.5/5.0 KV megger.
3.	Lightning arrestor (HV side) HT-E	Check, measure & record insulation resistance of each unit of lightning arrestor with by 2.5/5.0 KV megger.
4.	Earth resistance	Check & record the earth resistance of each earth connection with earth resistance meter.
5.	Lightning arrestor details	Check & record the following: i. location; ii. Rating; iii. Make; iv. Sr. no v. Date of Mfg vi. Date of commission; vii. Date of measurement viii. IR value ix. THRC value of leakage current; x. No of surges passed
6.	THRC leakage current value	Check & record leakage current before and after cleaning of LA with THRC meter.

Capacitor Bank (TI/MI/00026 Rev. 2) or as per latest RDSO guide line/HQ instruction/ OEM manual)

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule:	
2.	Ten Delta (Dielectric loss angle)	Measure & record the Ten Delta of the capacitor units with the help of a standard shearing bridge.
3.	Capacitance value of capacitor	Measure & record the readings of the capacitance up to the first decimal value by digital multimeter. Changes in values beyond 6% indicate that the capacitor bank is likely to fail.
4.	Protective relays	Check record of functioning of protective relays and setting.
5.	NCT setting	Check & record the NCT relay setting and change in the NCT relay settings are required to be examine.
6.	Fasteners and the connectors	Check proper tightening of the fasteners and the connectors. Tighten, if loose.

7.	Temperature of capacitor	Check & record the temperature rise in 24 hrs of the capacitor unit with by suitable thermometer on the can of the capacitor bank.
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Series Reactor (Dry Type) as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly and half yearly schedule	
2.	Insulation resistance of winding	Check insulation resistance & record: Winding to earth (ambient temp also to be recorded) with 2.5 kV megger. Paint to be done, if color of body is faded.
3.	Painting	
4.	Earthing connections	Check & tighten earthing connections. Replace the rusty or overheated bolts and nuts if necessary.
5.	Terminal Connector & Bus-bar connectors	Check & tighten of bolts and nuts of top & bottom. Replace the rusty or overheated bolts and nuts if necessary.
6.	Coil	Check coil for warm and find out the reason and attend it.

Control and Relay Panel as per latest RDSO guide line/HQ instruction/ OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly and half yearly schedule	
2.	Operation of relay	Check & record operation of all relays.
3.	Contactors, push button, switches	Check & clean all contactors, push button and switches for burnt, carbonize or corroded marks. Replace if defective.
4.	Check voltage	Check & record voltage between + (ve) to Earth & - (ve) to Earth. If observe more differ and take action.

Earthing & Bonding as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out all work done in half yearly schedule	
2.	Buried rail	Check condition of connections rail to buried rail and mat to buried rail. Clean & tighten all connections

AC/DC Distribution Panel as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition monthly and half yearly schedule	
2.	Cable glands	Check cable holes and unwanted holes. Provide proper size of glands, close unwanted holes and gaps.
3.	Cable ends	Check for crimping of cable ends with connectors/lugs and cable ends crimped with suitable size of connectors/lugs.
4.	Insulation resistance of cable	Measure & record the insulation resistance of cable at room temperature with 500V megger.
5.	Stickers / paint	Check stickers / paint to MCBs/rotary switch. Paste new sticker / paint to MCBs/ rotary switch, if faded.
6.	Painting	Paint to be done, if color of panel is faded/ rusted.

Battery Charger as per latest RDSO guide line/HQ instruction/ OEM manual

SN	Item	Inspection And Work To Be Carried Out	Remark
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1	Carry out following work in addition to monthly, quarterly and half yearly schedule		
2	Transformer winding	Measure & record the insulation resistance of winding at room temperature with 500 V megger.	More than 2 M □
3	Electrolyte condenser	Measure & record the capacitance value with LCR meter. Replace if open circuited/ short circuited.	Replace
4	Cable glands	Check cable holes and unwanted holes. Provide proper size of glands, close unwanted holes and gaps.	Cork gasket and HOLDITE compound
5	Cable ends	Check for crimping of cable ends with connectors/lugs and cable ends crimped with suitable size of connectors/lugs.	Proper crimped

Condition Based Maintenance through Thermo vision Camera (Traction Substation): **Same as done in monthly schedule**

b) Half Yearly Schedule:

General Works on TSS as per latest RDSO guide line/HQ instruction

SN	Item	Inspection And Work To Be Carried Out
1.	General cleanliness	Check surface of the roadway, proper drainage, rail access and pathways in the substation. Roadway and pathway should be firm and sufficiently elevated to prevent water-logging and proper drainage.
2.	Vegetation	Check & clean vegetation near around equipment and yard.
3.	Tree and branches	Check & trim tree branches likely to come in the vicinity of live lines.
4.	Stored lubricating or transformer oil	Check for security and fire risk. Keep oil safe place and no combustible material is in the vicinity of oil.
5.	Caution, danger board, shock treatment chart and other boards	Check & clean for damages, availability and well secured, replace if damage.
6.	Fire buckets and first aid box	Check for expiry, fill up fine sand and complete with necessary bucket. Sand will be provided by the contractor. First aid box-Medicines will be provided by railway.
7.	Structure and plant foundations	Check for any sinking or cracking and go round the structural work for checking tightness of various bolts and nuts.
8.	All indication lamp on control panels	Check loose connections, fuse indication etc. Tighten the same and replace the fuse indication if required.
9.	All jumpers, bus bars & other connections	Check visually for flash/ spark marks on jumper, nuts & bolts. Tighten the respective bi-metallic clamp/ connections. Replace if required.
10.	Discharge rod	Check for cable strands broken and damages. If strands 20% broken replace the cable.

Power Transformer (As per TI/MI/00038 REV.II or latest RDSO guide line, HQ instruction, OEM manual)

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule.	

2.	Test oil sample with oil test kit.	Test for BDV and DGA through CPRI OR any NABL approved Govt. LAB or Railways . Railway lab Charges will be paid by railway. Compare the report with previous reports and take action as indicated in enclosed ANNEXURE-I
3.	Insulation resistance of winding and polarization. Index (PI) with 2.5 kV or 5kV megger for HV- LV, HV-E & LV-E.	<p>Insulation resistance is to be measured for: 10 sec., 60 sec. and 600 sec. for HV-LV, HV-E and LV-E. Calculate PI (Polarization index) by the IR ratio of R60/R10 and R600/R60 Insulation resistance values should be compared with the last recorded value. Compare PI values with values at the time of commissioning/ last recorded. PI Insulation/ condition</p> <p>< 1.0 Dangerous 1.0 - 1.1 Poor 1.1- 1.25 Questionable 1.25 - 2.0 Satisfactory >2.0 Good</p> <p>If PI value is less than 1.1, oil should be filtered. In case the value does not improve even after filtrations periodic overhauling should be under taken.</p>
4	PRD / explosion vent and presence of oil. Check connection and operation of PRD/explosion vent. Replace the damage PRD with new PRD	Check & investigate for operation of PRD/ explosion vent for any damage and presence of oil. Check connection and operation of PRD/explosion vent. Replace the damage PRD with new PRD

132 kV SF-6 Circuit Breaker as per latest RDSO guide line/HQ instruction/ OEM manual :

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	All the moving part of the mechanism	Check, clean & lubricate the gear, bearing cum shaft rollers and latches.
3.	Insulation Resistance of pole unit (when breaker in open position)	Check & record IR value of pole unit with 2.5/5.0 kV megger as per OEM: i. Top-Bottom ii. Top- Earth iii. Bottom - Earth
4.	Insulation Resistance of pole unit (when breaker in close position)	Check & record continuity & IR value of pole unit with multimeter & 2.5/5.0 kV megger as per OEM: i. Top-bottom – for continuity ii. Top & bottom - earth
5.	Insulation resistance between control circuit to ground	Measure & record the insulation resistance between control circuit to ground with 500 V megger.
6.	Gas pipe line	Check pipe line & joints by gas detector or soap water for leakage.
7.	Spring charging motor	Check & clean commutator, carbon brushes size and spring tension, free movement of motor, temperature and lubricate. Replace bearing if jam.
8.	Charging time of spring	Check & record time for charging the spring at nominal tension

25 kV Vacuum Circuit Breaker / Interrupter as per latest RDSO guide line/HQ instruction/ OEM Manual :

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule.	
2.	All the moving part of the mechanism	Check, clean & lubricate the gear, bearing cum shaft rollers and latches.
3.	All cir clip, split clip and dowel pin	Check for availability and damages. Replace, if damage.
4.	Spring stroke	Measure & record spring stroke contact pressure.
5.	Contact wear indication	Check contact wear mark. If green not seen, contacts are worn off.

6.	Insulation Resistance of pole unit (when breaker in open position)	Check & record IR value of pole unit with 2.5/5 kV megger as per OEM: i. Top-Bottom ii. Top- Earth iii. Bottom - Earth
7.	Insulation Resistance of pole unit (when breaker in close position)	Check & record continuity & IR value of pole unit with multimeter & 2.5/5 kV megger as per OEM: i. Top-bottom –for continuity ii. Top & bottom - earth
8.	Insulation Resistance of Motor; Closing coil Tripping coil; AC& DC wiring	Check & record IR value with 500 V megger of: i. Motor ii. Closing coil iii. Tripping coil iv. AC wiring & DC wiring
9.	Top cover	Check sealing of top cover for any moisture trapping.
10.	Wipe & Travel measurement	Measure & record the wipe & travel measurement as per OEM.

Auxiliary Transformer as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2.	BDV of oil	Take sample of oil from bottom of tank and check the BDV of oil with BDV tester.
3.	Additional arching horn on fixed 9- ton insulator	Check flash mark on arching horn and measure the gap of arching horn.
4.	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth (use 500 V megger)
5.	Earth resistance	Check earth connections, measure & record the earth resistance by earth tester.
6.	LT cable	Check & replace damage, overheating of wires, lugs etc. of LT cable. Measure & record IR value of cable: i. Between AT to ICDP switch. ii. Between ICDP switch to control panel by 500 V megger.

132 kV/25 kV Potential Transformer as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2.	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth (use 500 V megger)
3.	Rod gap, If provided	Check & record rod gap setting

132 Kv/25 kV Current Transformer as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2.	Earth link	Check & tight earth link in secondary box.
3.	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth (use 500 V megger)
4.	Fuses	Check fuse for proper rating & overheating, replace if necessary.
5.	Arching horn, if provided	Check arching horn for flash mark and measure the gap of arching horn.

132 kV Isolator: Type – Double pole, Triple pole as per latest RDSO guide line/HQ instruction/OEM Manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Isolator	Check damages, flash mark, chipping insulators replace, if required. Clean with dry cotton cloth for dirtiness.
3.	Small parts	Check all nuts, bolts, split pins for good condition. Replace if rusted or defective
4.	Jaws	Check the spring of jaws for proper gripping.
5.	Main contacts	Check overheating and clean main contacts and lightly wipe with petroleum jelly.
6.	Articulated joints, sliding and bearing surface	Check & clean all articulated joints, sliding and bearing surface with kerosene oil and lubricate.
7.	Interlock	Check operation of interlock and lubricate all moving parts.
8.	Arcing horn, if provided	Check arcing horn for correct alignment. Working satisfactory, if provided
9.	HV connections	Check & tight HV connections for overheated/rusted. Replace if required.
10.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.

25 kV Isolator: Type – Single pole, Double pole and Bipolar as per latest RDSO guide line/HQ instruction/OEM manual :

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Main contacts	Check overheating and clean main contacts and lightly wipe with petroleum jelly.
3.	Small parts	Check all nuts, bolts, split pins for good condition. Replace if rusted or defective
4.	Simultaneous operation of blades (double pole)	Check & simultaneous operation of blade for correct alignment. If variation adjust it.
5.	Locking arrangement	Check the condition of locking arrangements to the operating handle and provision of padlocks.
6.	Arcing horn, if provided	Check arcing horn for correct alignment. Working satisfactory, if provided
7.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.

120/42 kV Surge Arrester: RDSO (TI/SPC/PSI/CLMNA/0030) or as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Leakage current , if monitor provided	Measure & record of leakage current

25 kV Capacitor Bank (TI/MI/00026 Rev. 2) or as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Tension on connections	Check & release the excessive tension on the connections. If required

3.	Corrosion on metallic parts	Check & clean rust collection/corrosion mark on the metallic part by Cleaning agent.
4.	Current and voltage variation	Check, measure & record current and voltage variation for the capacitor bank for at least 24 hrs and record.

Control and Relay Panel as per latest RDSO guide line/HQ instruction/ OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Indication and recording instrument	Check all indication and recording instrument for healthiness. Replace if defective.
3.	Relay	Check & clean outer terminals of relay.
4.	Door gasket & hinges	Check & replace gasket for damages. Replace with new if necessary.
5.	All connections	Check & tight all connection. Tighten if loose

Earthing & Bonding as per latest RDSO guide line/HQ instruction/OEM manual:

S N	Item	Inspection And Work To Be Carried Out
1	Bonding & earth connection with structure	Check physically soundness & tightness of bonding & earth connection with structure, lightning arrestor, and electrical equipment inter panel connection.
2	Earth resistance of electrical equipment body, fencing and structure with electrode	Measure & record the earth resistance of electrical equipment body, fencing, structures by earth tester.
3	Shielding wire	Check termination of shielding wire condition and bonding with structures.
4	Earth resistance of each electrode after disconnection	Measure & record the earth resistance of each electrode after disconnecting it from common earth system by earth tester.
5	Combined earth resistance of TSS with rail	Measure & record the earth resistance of combined electrode without disconnecting it from common earth system by earth tester.

Battery Charger as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition to monthly and quarterly schedule		
2	Equipments and wire	Check and clean equipments and wires with soft wire brush.	Clean
3	Electrolyte condenser	Visual checking. If observe abnormality then replace it.	Replace
4	i. Rectifier, ii. Coarse/ fine control switch, iii. Trickle/Boost change over switch	Check & tight connection of all terminal connectors and working: i. Rectifier, ii. Coarse/fine control switch iii. Trickle/Boost change over switch	working smoothly

AC/DC Distribution Panel as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition quarterly schedule		

2	Panel	Check & Clean the panel inside and outside by soft brush.	Clean
3	MCB, rotary switches	Check and clean smooth operation & working without obstruction.	Working satisfactory
4	Tightness	Check & tight cable termination of MCBs, rotary switch and bus bar.	No loose connection

Condition Based Maintenance through Thermo vision Camera (Traction Substation): **Same as done in monthly schedule**

c) Monthly Schedule:

General Works on TSS as per latest RDSO guide line/HQ instruction

SN	Item	Inspection And Work To Be Carried Out
1.	General cleanliness	Check surface of the roadway, proper drainage, rail access and pathways in the substation. Roadway and pathway should be firm and sufficiently elevated to prevent water-logging and proper drainage.
2.	Vegetation	Check & clean vegetation near around equipment and yard.
3.	Tree and branches	Check & trim tree branches likely to come in the vicinity of live lines.
4.	Stored lubricating or transformer oil	Check for security and fire risk. Keep oil safe place and no combustible material is in the vicinity of oil.
5.	Caution, danger board, shock treatment chart and other boards	Check & clean for damages, availability and well secured, replace if damage.
6.	Fire buckets and first aid box	Check for expiry, fill up fine sand and complete with necessary bucket. Sand will be provided by the contractor. First aid box
7.	Structure and plant foundations	Check for any sinking or cracking and go round the structural work for checking tightness of various bolts and nuts.
8.	All indication lamps on control panels	Check loose connections, fuse indication etc. Tighten the same and replace the fuse indication if required.
9.	All jumpers, bus bars & other connections	Check visually for flash/ spark marks on jumper, nuts & bolts. Tighten the respective bi-metallic clamp/ connections. Replace if required.
10.	Discharge rod	Check for cable strands broken and damages. If strands 20% broken replace the cable.

Power Transformer (As per TI/MI/00038 REV.II or latest RDSO guide line, HQ instruction, OEM manual):

SN	Item	Inspection And Work To Be Carried Out
1.	Maximum temperature of transformer oil on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator.
2.	Maximum temperature of transformer winding on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator.
3.	Oil level in conservator (MOLG)	Check as per transformer oil temperature indicator (OTI). If low, top up with the filtered oil.
4.	Buchholz Relay	Check for gas collection. In case gas is collected its DGA testing to be done.

5.	Oil level in OIP condenser bushing	Check for oil level with reference to the oil level indicator : In case of sealed bushing, if no oil/less than minimum level indication. Measure Tan- Delta & capacitance and compare the test values recorded earlier. In case of oil filled bushing if any leakage is observed, the same shall be attended.
6.	Tap changer	Check & record the position of standby and service transformer.
7.	Tank, Radiators, Conservator, Bushing, Oil level indicator, gauges	Check & clean dirt deposits, leakage and crack. If crack/leakage is observed, replace /attend it.
8.	Dehydrating breather	Check breather for choking due to insect build /dirt. If breather is choked, remove the dirt etc. Check the intactness of gasket and color of the silica gel. If gasket is damaged and silica gel is pink, replace the same, with new gasket and dry silica gel or recondition the old silica gel. If the silica gel is too wet check the BDV of transformer oil. Check oil level in the oil cup. Fill up oil in cup if required.
9.	Heater in marshalling box	Check for proper functioning. In case not working, the connection should be checked and rectified.
10.	Sound	Check abnormal humming, observe and arrest the humming sound.
11.	All external connection	Check visually that all connections are normal without any discoloration due to local heating. In case of any sign of heating, clean and tighten the bolts and nuts.

132 kV SF-6 Circuit Breaker latest RDSO guide line, HQ instruction, OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain pole insulator unit	Check for damages, flash mark, chipping insulators. Replace if required. Clean with dry cotton cloth for dirtiness.
2.	Counter reading	Check operation of counter and record counter reading of CB : - Before Maintenance - After maintenance
3.	Gas pressure	Check & record gas pressure and temperature.
4.	Heater, thermostat & lamp	Check function of heater, thermostat & lamp. If any defect attend it.
5.	Mechanism box	Open the cover check & clean mechanism box for condensation rain water, gasket of door, dust and hinges. Arrest the reason for rain water and attend it.
6.	Main terminal	Check the main terminal for discoloration, overheated & rusted nuts, bolts & washer. Replace, if required.
7.	Shock observer	Check the oil shock absorber. Repair or replaced, if leakage from necessary.
8.	Local/Remote switch operation	Check the operation of breaker on local and remote switch. Breaker should have open & close on selected position.
9.	Local and remote switches	Check the function of local and remote switch.
10.	Position of indicator	Check alignment and missing indicator.
11.	Limit switch & auxiliary contact	Check & clean the function of auxiliary limit switch, switches, contact, connection and terminal block for tightness.
12.	Condenser tripping device	Check the function proper operation. If defective, attend the of CTD same
13.	Anti pumping device	Check the function of APD for proper operation. If defective, attend the same.
14.	Interlocking	Check the function with isolator. of interlock

15.	Earth connections & foundation	Check & tighten the earth connections & foundation bolts. If found loose.
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25 kV Vacuum Circuit Breakers & Interrupters (as per latest RDSO guide line/HQ instruction/ OEM manual):

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain pole insulator unit	Check for damages, flash mark, chipping insulators. Replace if required. Clean with dry cotton cloth for dirtiness.
2.	Magnetic actuator operating mechanism and drive link assembly if applicable	Check presence of dust, looseness of bolts and distortion in the operating mechanism. Clean the same with dry cloth tighten the bolts and investigate the problem in mechanism & rectify.
3.	Counter reading	Check operation of counter and record counter reading of CB/BM: - Before maintenance - After maintenance
4.	Mechanism box	Open the cover check & clean mechanism box for condensation rain water, gasket of door, dust and hinges. Arrest the reason and attend it.
5.	Heater, thermostat & lamp	Check function of heater, thermostat & lamp. If any defect attend it.
6.	Position of indicator	Check alignment and missing indicator.
7.	Control circuit	Check & record operating voltage, control circuit wiring and connections should have proper lugs and ferule number in terminal box.
8.	Tripping mechanism	Check & correct operation of tripping mechanism.
9.	Shaft of the pole assembly	Check visibility of red band on the shaft of the pole assembly.
10.	Auxiliary circuits	Check the connections & function of auxiliary control circuit and supply voltage is correct.
11.	Local/Remote switch operation	Check the operation of breaker on local and remote switch. Breaker should have open & close on selected position.
12.	Connections	Check loose/overheating connections. Tight if found loose.
13.	Earth connections & foundation bolts	Check & tight the earth connections & foundation bolts.
14.	Condenser tripping device for CB	Check same the function of CTD proper operation. If defective, attend the
15.	Anti pumping device for BM	Check the function of APD for proper operation. If defective, attend the same.
16.	Interlocking	Check the function of interlock with isolator.

Auxiliary Transformers as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Visual inspection of transformer.	Check any sign of oil leakage, overheating. If observe attend it.
2.	Cleaning of transformer	Clean the transformer externally - conservator, bushing and tank with clean cotton cloth.
3.	Silica gel	Check the condition of silica gel. If color is pink reactivate/ replace. Check oil in the cup of breather. Top up the oil in cup if required.

4.	Connections	Check, clean & tight all connections of HT and LT bushing terminals.
5.	Oil level in conservator	Check & top up oil level in conservator with new filtered oil up to mark, if required.
6.	AT enclosure	Check & clean AT enclosure of vegetation and other material.
7.	Condition of pole mounted ICDP switch, control panel and its fuses	Check condition of pole mounted ICDP switch, control panel and its fuses. Replace overheated of lugs, fuses and tighten loose connections.
8.	Caution board and anti climbing device	Check caution board and anti climbing device for availability and conditions.
9.	Earthing connections	Check & tight the earth connections. If found loose.
10.	Arcing horn	Check flash mark on arcing horn. Attend if flashover mark observe
11.	Drop Out (DO) fuse	Check condition of DO fuse barrel and fuse element. Replace the breakage, overheating and non standard fuse wire.
12.	Sound of equipment	Check any unusual sound of equipment.

132 Kv/25 kV Current Transformers as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain bushing	Check damages, flash mark, chipping insulators replace, if required. Clean with dry cotton cloth for dirtiness.
2.	Terminal connectors	Check overheated/rusted terminal connectors. Replace if any sign of overheated/rusted.
3.	Terminal bolts, nuts & washers	Check tightness of terminal bolts, nuts & washers. Replace if any sign of rusting/oxidation.
4.	Oil level	Check oil level for leakage. Top up oil if required and arrest the leakage.
5.	Earthing connections	Check & tight the earth connections. If found loose.
6.	Arching horn, if provided	Check flash mark on horn tips.

132Kv/25 kV Potential Transformers as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Inspection of PT	Check oil leakage, chip or insulator broken and any sign of overheating, if observe attend it.
2.	Terminal	Check any overheating of terminal. Replace if found overheated.
3	Terminal bolts, nuts & washers	Check & replace of terminal bolts, nuts and washer. If found any sign of rusting / oxidation.
4	Oil level	Check oil level in PT& top up with new oil up to mark, if required.
5	Fuse	Check fuse and neutral link for proper rating and tightness. Replace the fuse if necessary.
6	Earthing	Check & tight the earth connections. If found loose.

132 kV Isolators as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Isolator	Check visually the conditions of the support insulator. If observe any abnormality attend it.

2.	Mechanism & earthing	Check & clean mechanism, operation, tightness of earthing connection and lubricate the moving parts.
3.	Operation of Isolator	Check operation of the isolator for correct adjustment of blade and smooth hand operation.
4.	Interlock	Check working of interlock without obstruction.
5.	Earthing connections	Check & tight the earthing of the frame with its fittings. Lead of earthing heel if provided

120/42 kV Surge Arresters as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Visual inspection of lightning arrestor	Check sign of overheating if observe. Find out the reason and attend it.
2.	Surface of porcelain bushing	Check damages, flash mark, chipping insulators replaced, if required. Clean with dry cotton cloth for dirtiness.
3.	Surge counter, if provided	Check & record the number of discharges of surge counter, if meter is provided.
4	Earthing terminal & earthing strip	Check & tight earthing terminal & strip, tighten if loose.
5	Guarding ring, if provided	Check guarding ring connections, tighten if loose.

Series Reactor as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain insulator	Check damages, flash mark, chipping insulators replaced, if required. Clean with dry cotton cloth for dirtiness.
2.	Connection on bushing	Check the tightness of bolts and nuts. Replace the rusty or overheated bolts and nuts if necessary.
3.	Earthing connections	Check & tight the earth connections. If found loose.
4.	Terminal Connector & Bus-bar connectors	Check & tight the bolts and nuts of top & bottom connectors. Replace the rusty or overheated bolts and nuts if necessary.
5.	Coil	Check visually of coil for warm. If warm find out the reason & attend it.

Capacitor Bank (TI/MI/00026 Rev. 2) or as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain insulator	Check damages, flash mark, chipping insulators replaced, if required. Clean with dry cotton cloth for dirtiness.
2.	Dielectric	Check dielectric leakage/ seepage. If leakage/seepage is found : i. Minor seepage may be attended by M-seal (fast drying type compound).
3.	Birdcage in and around the traction sub station	Check & remove birdcage in and around the traction substation to avoid bird electrocution.
4.	Temperature of the capacitor units	Check physically for any abnormal temperature rise of the capacitor units. If abnormal temperature rise of the capacitor units. Find out the reason and rectify.

25 kV Isolator: Type – Single pole, double pole and Bipolar as per latest RDSO guide line/HQ instruction/ OEM manual :

SN	Item	Inspection And Work To Be Carried Out
1.	Isolator	Check damages, flash mark, chipping insulators replace, if required. Clean with dry cotton cloth for dirtiness.
2.	HV connections	Check & tight HV connections for overheated/rusted. Replace if required.
3.	Operation of Isolator	Check the hand operation of the isolator for correct adjustment of blade and smooth hand operation.
4.	Interlock	Check operation of interlock and lubricate all moving parts.
5.	Earthing connections	Check & tight the earthing of the frame with its fittings.

Control & Relay Panel as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Cleaning of panel	Check & clean accumulated dust externally & internally with dry cloth.
2.	Indicating and recording instrument	Check all indicating and recording instrument are working normally.
3.	Relay	Check & clean outer terminals of relay for any abnormality.
4.	Cable connections	Check & tighten all cable connections, if found loose.
5.	Terminal board	Check & clean terminal board, cable damage and cable leads with dry cottoncloth and attend the damage cable.
6.	Fuses	Check all fuses for proper rating & overheating, replace if necessary.
7.	Earthing connections	Check & tight the earth connections. If found loose.
8.	Doors	Check doors & hinges for intactness.
9.	Holes in panel	Check & plug the holes to avoid entry of moisture and insects.

AC/DC Distribution Panel as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Distribution panel	Check & clean the panel outside and inside with dry cloth.
2.	Voltmeter	Check the function of voltmeter.
3.	Earth terminals	Check & tight earth termination points on both ends. Attend if any deficiency.
4.	MCB	Check visual operation for proper functioning and rating.
5.	Temperature at termination points	Measure & record the temperature at termination points. If variation is more than 5 deg. with room temp, ensure the tightness.
6.	LED	Check & replace the defective LED with tested LED.
7.	Fuses	Check all fuses for proper rating & overheating, replace if necessary.
8.	Holes in panel	Check & plug the holes to avoid entry of moisture and insects.

Battery Charger as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition to fortnightly schedule		
2	Charger	Check & clean the charger outside and inside with dry cloth.	Clean
3	Voltmeter & Ammeter	Check the proper function of voltmeter & ammeter.	Working satisfactory
4	Overheating	Check any sign of overheating inside the charger. Find out the reason and attend it.	Attend

Condition Based Maintenance through Thermo vision Camera (TractionSubstation):

-Check thermal scanning by thermo vision camera.

- The temperature of hot spots is compared with adjacent/nearby similar components.
- Power block activities subjected to thermo vision reports in monthly maintenance.

ANNEXURE-I
Para 20207 of ACTM Vol. II Part-I

**(The values from latest IS: 1866-2000 has been taken while
ACTM table is having the values from**

IS: 1866-1983)

APPLICATION AND INTERPRETATION OF TESTS ON TRANSFORMER OIL INSERVICE

SN	Tests	Value as per IS:1866 - 2000 permissible limits	To be re-conditioned	To be replaced.
1.	Electric strength (Breakdown voltage)	Min. 40 kV	Less than the value specified	--
2.	Specific resistance (Resistivity) Ohm-cm at 90°C	Above 1×10^{12}	Between 0.1×10^{12} to 1×10^{12}	Below 0.1×10^{12}
3.	Water content Below 145 kV Above 145 kV	Max. 40 ppm	1×10 > 40 ppm	--
4.	Dielectric dissipation factor, Tan delta at 90 OC	0.2 or less	--	Above 0.2
5.	Neutralization value mgKOH/ g of oil.	0.3 or less	--	Above 0.3
6.	Interfacial tension N/ m	0.015 or more	--	Below 0.015
7.	Flash point in 0 C	140 or more	125 and above but below 140	Below 125
8.	Sludge	Non- detectable, Results below 0.02% by mass may be neglected	Sediment	Perceptible sludge
9.	Dissolved Gas Analysis	Refer tables given below		

RANGE OF GAS LEVELS

(All concentrations are in PPM) Gas	0-4 years	4-10 years	10 years
Methane	10-30	30-80	30-130
Ethane	10-30	30-50	30-110
Ethylene	10-30	30-50	50-150
Acetylene	10-16	10-30	10-40
Hydrogen	20-150	150-300	200-500
Carbon Monoxide	200-300	300-500	500-700
Carbon Dioxide	3000-4000	4000-5000	4000-10,000

GAS LEVELS FOR DIFFERENT FAULT CONDITIONS

(All concentrations are in PPM)

Fault Gases	Hydrogen H ₂	Methane CH ₄	Ethane C ₂ H ₆	Ethylene C ₂ H ₄	Acetylene C ₂ H ₂	Carbon dioxide
Arcing	500-1000	20-130	10-30	10-30	40-100	3000-4000
Partial Discharge	500-1000	20-130	10-30	10-30	10-15	3000-4000

Hot spot	20-150	10-30	10-30	150-200	10-15	3000-4000
Gradual Overheating	20-150	10-30	150-200	10-30	10-30	3000-4000

Point to be checked:

1. (For DC) Rectifier Panel, Incoming & out going bus bar/cable termination.
2. Cable Termination of cable isolators ends connection.
3. All joints, connections terminals, jumpers, PG clamps of incoming switch yard and outgoing switch gear.
4. Transformer bushing connection.
5. Bus bar joints.
6. LA, CT, PT connections from bus bar and PG clamps.
7. HV side bi-polar isolators, Single pole isolator contact and bus bar.
8. Power cable terminations and joints provided in sub-stations.

Note: Single line diagram for all posts to be prepared indicating all cut points where temperature is to be observed & record to be maintained on diagram along with summary indicating the hot points observed & corrective action taken.

2. Maintenance of Sectioning Post (SP) & Sub-Sectioning Post (SSP)

a) Yearly Schedule

General Works on SP / SSP as per latest RDSO guide line/HQ instruction

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly and half yearly schedule	
2.	Building	Check for roof cleaning, leakage and condition of building, attend the same if any deficiency. Paint if required.
3.	Lightning screen	Check & tight strain clamp of wire. If observe any defect attend it.
4.	Structure & fencing	Check structure and fencing for soundness. Paint if required.
5.	Trenches	Open and clean trenches for possibility of lizard and other insects' entry in control panels / equipments.
6.	Tree & branches	Check & prune the tree branches near to live conductor as required.

25 kV Vacuum Interrupter as per latest RDSO guide line/HQ instruction/OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Auxiliary switches connected in conjunction with mechanism	Check for correct position of the auxiliary switches and carry out few close & open operations. Signals occurred correctly and driving level is correctly positioned auxiliary switch.
3.	Cable glands	Check tightness of the fairleads and locked. The free fairleads must be covered with relative plate and blocked.
4.	Terminal Connectors	Check & clean connector, nuts, bolt, washer and bimetallic strip. Polish the surface and freely place bimetallic strip properly, If provided.
5.	Measure & record the Closing & Tripping timing by timer in millisecond as per OEM.	
6.	Measure the Contact resistance in Micro ohms as per OEM	

Auxiliary Transformer as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Winding	Measure & Record winding continuity on all tapings with multimeter/ 500 V

	continuity	megger.
3.	Tap changer	Check the smooth operation of tap changer on all tapings.
4.	Acidity of oil	Check the acidity of transformer oil.
5.	Ratio test	Conduct ratio test by applying AC supply to HV winding and measure the voltage at LV side winding.
6.	Jumpers	Check HT and LT jumpers & lugs for loose & flash mark. Replace if loose & flash.
7.	Painting	Paint to be done, if color of tank is faded/ rusted.
8.	DO fuse wire	Replace the fuse wire with new one.

25 kV Potential Transformer as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Duplicate earthing	Check duplicate earth conditions for broken & loose. Attend the same.
3.	Oil testing if possible	Test the oil with BDV tester. If possible.
4.	Ratio test	Conduct ratio test by applying AC supply to HV winding and measure the voltage at LV side winding.
5.	Painting	Paint to be done, if color of tank is faded/ rusted.

Current Transformer 25kV as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly & half yearly schedule	
2.	Arching horn gap If provided	Check & measure arching horn gap as required.
3.	Oil testing, if possible	Test the oil with BDV tester.
4.	Painting	Check for painting, if color of tank is faded/ rusted.
5.	Polarity test	Conduct polarity test and check the direction of current.
6.	Ratio test	Conduct ratio test by applying current to HV winding and measure the current LV side winding.

25 kV Isolator Type – Single pole and Bipolar as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1	Carry out following work in addition to monthly & half yearly schedule:	
2	Operation of isolator (Double pole)	Check the operation of isolator slowly and check for simultaneous operation of blades on the poles and correct alignment of blade tips in the fixed contactjaws of the poles.
3	Interlocking operation	Check & clean interlocking operation with circuit breaker.
4	Blade tips and fixed contact fingers	Check the condition of the blade tips and fixed contact fingers for any sign of overheating and presents of buffs. Clean the buffs.
5	Clearances of blade	Measure the clearances of blade in open position. Measure and record and adjust if necessary.
6	Insulation resistance	Measure & record IR values of pedestal & tie rod insulators with 2.5 kV megger.
7	Bus connections and bimetallic strips	Check & clean for tightness, sign of oxidation on bus connections and bimetallic strips correct if necessary. Replace bimetallic, if required
8	Paint	Check & replace rusted parts and paint the on rusted parts, if any

42 kV Surge Arrester Ref: TI/MI 0041 Rev – 0 or or as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
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1.	Carry out following work in addition to monthly & half yearly schedule:	
2.	Lightning arrestor (LV side) HT-E	Check, measure & record insulation resistance of each unit of lightning arrestor with by 2.5/5.0 kV megger.
3.	Lightning arrestor(HV side))HT-E	Check, measure & record insulation resistance of each unit of lightningarrestor with by 2.5/5.0 kV megger.
4.	Earth resistance	Check & record the earth resistance of each earth connection with earth resistance meter.
5.	Lightning arrestor details	Check & record the following: i. location; ii. Rating; iii. Make; iv. Sr. no v. Date of Mfg vi. Date of commission; vii. Date of measurement viii. IR value ix. THRC value of leakage current; x. No of surges passed
6.	THRC leakage current value	Check & record leakage current before and after cleaning of LAwith THRC meter.

Earthing & Bonding as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out all work done in half yearly schedule	
2.	Buried rail	Check condition of connections rail to buried rail and mat to buried rail. Clean & tighten all connections

AC/DC Distribution Panel as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition monthly and half yearly schedule	
2.	Cable glands	Check cable holes and unwanted holes. Provide proper size of glands, close unwanted holes and gaps.
3.	Cable ends	Check for crimping of cable ends with connectors/lugs and cable ends crimped with suitable size of connectors/lugs.
4.	Insulation resistance of cable	Measure & record the insulation resistance of cable at room temperature with 500 V megger.
5.	Stickers / paint	Check stickers / paint to MCBs/rotary switch. Paste new sticker / paint to MCBs/ rotary switch, if faded.
6.	Painting	Paint to be done, if color of panel is faded/ rusted.

Battery Charger as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition to monthly , quarterly and half yearly schedule		
2	Transformer winding	Measure & record the insulation resistance of winding at room temperature with 500 V megger.	More than 2 M
3	Electrolyte condenser	Measure & record the capacitance value with LCR meter. Replace if open circuited/ short circuited.	Replace
4	Cable glands	Check cable holes and unwanted holes. Provide proper size of glands, close unwanted holes and gaps.	Cork gasket and HOLDITE compound
5	Cable ends	Check for crimping of cable ends with connectors/lugs and cable ends crimped with suitable size of connectors/lugs.	Proper crimped

Condition Based Maintenance through Thermo vision Camera (Traction Substation):
Same as done in monthly schedule

b) Half Yearly Schedule:

General Works on SP / SSP as per latest RDSO guide line/HQ instruction

SN	Item	Inspection And Work To Be Carried Out
1.	General cleanliness	Check surface of the roadway, proper drainage, rail access and pathways in the substation. Roadway and pathway should be firm and sufficiently elevated to prevent water-logging and proper drainage.
2.	Vegetation	Check & clean vegetation near around equipment and yard.
3.	Tree and branches	Check & trim tree branches likely to come in the vicinity of live lines.
4.	Caution, danger board, shock treatment chart	Check & clean for damages, availability and well secured, replace if damage.
5.	Fire buckets and first aid box	Check for expiry, fill up fine sand and complete with necessary bucket. Sand will be provided by the contractor. First aid box- Medicines will be provided by railway.
6.	Structure and plant foundations	Check for any sinking or cracking and go round the structural work for checking tightness of various bolts and nuts.
7.	All jumpers, bus bars & other connections	Check visually for flash/ spark marks on jumper, nuts & bolts. Tighten the respective bi-metallic clamp/ connections. Replace if required.

25 kV Vacuum Interrupter as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule.	
2.	All the moving part of the mechanism	Check, clean & lubricate the gear, bearing cum shaft rollers and latches.
3.	All cir clip, split clip and dowel pin	Check for availability and damages. Replace, if damage.
4.	Spring stroke	Measure & record spring stroke contact pressure.
5.	Contact wear indication	Check contact wear mark. If green not seen, contacts are worn off.
6.	Insulation Resistance of pole unit (when breaker in open position)	Check & record IR value of pole unit with 2.5/5 kV megger as per OEM: i Top-Bottom ii Top- Earth iii Bottom - Earth
7.	Insulation Resistance of pole unit (when breaker in close position)	Check & record continuity & IR value of pole unit with multi meter & /5 kV megger as per OEM: i. Top-bottom -for continuity ii. Top & bottom - earth
8.	Insulation Resistance of Motor; Closing coil Tripping coil; AC & DC wiring	Check & record IR value with 500 V megger of: i. Motor ii. Closing coil iii. Tripping coil iv. AC wiring & DC wiring
9.	Top cover	Check sealing of top cover for any moisture trapping.
10.	Wipe & Travel measurement	Measure & record the wipe & travel measurement as per OEM.

Auxiliary Transformer as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2.	BDV of oil	Take sample of oil from bottom of tank and check the BDV of oil with BDV tester.
3.	Additional arching horn on fixed 9- ton insulator	Check flash mark on arching horn and measure the gap of arching horn.
4	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth(use 500 V megger)
5.	Earth resistance	Check earth connections, measure & record the earth resistance by earth tester.
6.	LT cable	Check & replace damage, overheating of wires, lugs etc. of LT cable. Measure & record IR value of cable: i. Between AT to ICDP switch. ii. Between ICDP switch to control panel by 500 V megger.

25 kV Potential Transformer as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth(use 500 V megger)
3.	Rod gap, If provided	Check & record rod gap setting

25 kV Current Transformer or as per latest RDSO guide line/HQ instruction/ OEM manual

SN	Item	Inspection And Work To Be Carried Out
1.	Check all points stated carried out in monthly schedule	
2.	Earth link	Check & tight earth link in secondary box.
3	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth(use 500 V megger)
4.	Fuses	Check fuse for proper rating & overheating, replace if necessary.
5.	Arching horn, if provided	Check arching horn for flash mark and measure the gap of arching horn.

25 kV Isolator: Type – Single pole, double pole and Bipolar as per latest RDSO guide line/HQ instruction/OEM manual :

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Main contacts	Check overheating and clean main contacts and lightly wipe with petroleum jelly.
3.	Small parts	Check all nuts, bolts, split pins for good condition. Replace if rusted or defective
4.	Simultaneous operation of blades	Check & simultaneous operation of blade for correct alignment. If variation adjust it.

	(double pole)	
5.	Locking arrangement	Check the condition of locking arrangements to the operating handle and provision of padlocks.
6.	Arcing horn, if provided	Check arcing horn for correct alignment. Working satisfactory, if provided
7.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.

42 kV Surge Arrester: RDSO (TI/SPC/PSI/CLMNA/0030) or as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to monthly schedule	
2.	Leakage current , if monitor provided	Measure & record of leakage current

Earthing & Bonding or as per latest RDSO guide line/HQ instruction/ OEM manual:

S N	Item	Inspection And Work To Be Carried Out
1	Bonding & earth connection with structure	Check physically soundness & tightness of bonding & earth connection with structure, lightning arrester, and electrical equipment inter panel connection.
2	Earth resistance of electrical equipment body, fencing and structure with electrode	Measure & record the earth resistance of electrical equipment body, fencing, structures by earth tester.
3	Shielding wire	Check termination of shielding wire condition and bonding with structures.
4	Earth resistance of each electrode after disconnection	Measure & record the earth resistance of each electrode after disconnecting it from common earth system by earth tester.
5	Combined earth resistance of SP/SSP with rail	Measure & record the earth resistance of combined electrode without disconnecting it from common earth system by earth tester.

Battery Charger as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition to monthly and quarterly schedule		
2	Equipments and wire	Check and clean equipments and wires with soft wire brush.	Clean
3	Electrolyte condenser	Visual checking. If observe abnormality then replace it.	Replace
4	i. Rectifier, ii. Coarse/ fine control switch, iii. Trickle/Boost change over switch	Check & tight connection of all terminal connectors and working: i. Rectifier, ii. Coarse/fine control switch iii. Trickle/Boost change over switch	working smoothly

Condition Based Maintenance through Thermo vision Camera (Traction Substation):
Same as done in monthly schedule

a) Monthly Schedule:

General Works on SP / SSP as per latest RDSO guide line/HQ instruction

SN	Item	Inspection And Work To Be Carried Out
1.	General cleanliness	Check surface of the roadway, proper drainage, rail access and pathways in the substation. Roadway and pathway should be firm and sufficiently elevated to prevent water-logging and proper drainage.
2.	Vegetation	Check & clean vegetation near around equipment and yard.
3.	Tree and branches	Check & trim tree branches likely to come in the vicinity of live lines.
4.	Caution, danger board, shock treatment chart	Check & clean for damages, availability and well secured, replace if damage.
5.	Fire buckets and first aid box	Check for expiry, fill up fine sand and complete with necessary bucket. Sand will be provided by the contractor. First aid box Check for expiry, fill up fine sand and complete with necessary bucket. Sand will be provided by the contractor. First aid box
6.	Structure and plant foundations	Check for any sinking or cracking and go round the structural work for checking tightness of various bolts and nuts.
7.	All jumpers, bus bars & other connections	Check visually for flash/ spark marks on jumper, nuts & bolts. Tighten the respective bi-metallic clamp/ connections. Replace if required.
8.	Discharge rod	Check for cable strands broken and damages. If strands 20% broken replace the cable.

25 kV Vacuum Interrupters as per latest RDSO guide line/HQ instruction/ OEM manual:

S.N.	Item	Inspection and work to be Carried Out
1	Surface of porcelain pole if required. insulator unit	Check for damages, flash mark, chipping insulators. Replace Clean with dry cotton cloth for dirtiness.
2	Magnetic actuator operating mechanism and drive link assembly if applicable.	Check presence of dust, looseness of bolts and distortion in the operating mechanism. Clean the same with dry cloth tighten the bolts and investigate the problem in mechanism & rectify.
3	Counter reading	Check operation of counter and record counter reading of CB/BM: - Before maintenance - After maintenance
4	Mechanism box	Open the cover check & clean mechanism box for condensation rain water, gasket of door, dust and hinges. Arrest the reason and attend it.
5	Heater, thermostat & lamp	Check function of heater, thermostat & lamp. If any defect attend it.
6	Position of indicator	Check alignment and missing indicator.
7	Control circuit	Check & record operating voltage, control circuit wiring and connection should have proper lugs and ferule number in terminal box.
8	Tripping mechanism	Check & correct operation of tripping mechanism.
9	Shaft of the pole assembly	Check visibility of red band on the shaft of the pole assembly.
10	Auxiliary circuits	Check the connections & function of auxiliary control circuit and supply voltage is correct.

11	Local/Remote switch operation	Check the operation of breaker on local and remote switch. Breaker should have open & close on selected position.
12	Connections	Check loose/overheating connections. Tight if found loose.
13	Earth connections & foundation bolts	Check & tight the earth connections & foundation bolts.
14	Condenser tripping device for CB	Check the function of CTD proper operation. If defective, attend the same.
15	Anti pumping device for BM	Check the function of APD for proper operation. If defective, attend the same.
16	Interlocking	Check the function of interlock with isolator.

Auxiliary Transformers as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Visual inspection of transformer.	Check any sign of oil leakage, overheating. If observe attend it.
2.	Cleaning of transformer	Clean the transformer externally - conservator, bushing and tank with clean cotton cloth.
3.	Silica gel	Check the condition of silica gel. If color is pink reactivate/ replace. Check oil in the cup of breather. Top up the oil in cup if required.
4.	Connections	Check, clean & tight all connections of HT and LT bushing terminals.
5.	Oil level in conservator	Check & top up oil level in conservator with new filtered oil up to mark, if required.
6.	AT enclosure	Check & clean AT enclosure of vegetation and other material.
7.	Condition of pole mounted ICDP switch, control panel and its fuses	Check condition of pole mounted ICDP switch, control panel and its fuses. Replace overheated of lugs, fuses and tighten loose connections.
8.	Caution board and anti climbing device	Check caution board and anti climbing device for availability and conditions.
9.	Earthing connections	Check & tight the earth connections. If found loose.
10.	Arcing horn	Check flash mark on arcing horn. Attend if flashover mark observe
11	Drop Out (DO) fuse	Check condition of DO fuse barrel and fuse element. Replace the breakage, overheating and non standard fuse wire.
12	Sound of equipment	Check any unusual sound of equipment.

25 kV Current Transformers as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Surface of porcelain bushing	Check damages, flash mark, chipping insulators replace, if required. Clean with dry cotton cloth for dirtiness.
2.	Terminal connectors	Check overheated/rusted terminal connectors. Replace if any sign of overheated/rusted.
3.	Terminal bolts, nuts & washers	Check tightness of terminal bolts, nuts & washers. Replace if any sign of rusting/oxidation.
4.	Oil level	Check oil level for leakage. Top up oil if required and arrest the leakage.

5.	Earthing connections	Check & tight the earth connections. If found loose.
6.	Arching horn, if provided	Check flash mark on horn tips.

25 kV Potential Transformers as per latest RDSO guide line/HQ instruction/OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Inspection of PT	Check oil leakage, chip or insulator broken and any sign of overheating, if observe attend it.
2.	Terminal	Check any overheating of terminal. Replace if found overheated.
3.	Terminal bolts,nuts & washers	Check & replace of terminal bolts, nuts and washer. If found any sign of rusting / oxidation.
4.	Oil level	Check oil level in PT& top up with new oil up to mark, if required.
5.	Fuse	Check fuse and neutral link for proper rating and tightness. Replace the fuse if necessary.
6.	Earthing	Check & tight the earth connections. If found loose.

42 kV Surge Arresters as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Visual inspection of lightning arrestor	Check sign of overheating if observe. Find out the reason and attend it.
2.	Surface of porcelain bushing	Check damages, flash mark, chipping insulators replaced, if required. Clean with dry cotton cloth for dirtiness.
3.	Surge counter, if provided	Check & record the number of discharges of surge counter, if meter is provided.
4	Earthing terminal & earthing strip	Check & tight earthing terminal & strip, tighten if loose.
5	Guarding ring, if provided	Check guarding ring connections, tighten if loose.

25 kV Isolator: Type – Single pole, double pole and Bipolar as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1. Isolator		Check damages, flash mark, chipping insulators replace, if required. Clean with dry cotton cloth for dirtiness.
2. HV connections		Check & tight HV connections for overheated / rusted. Replace if required.
3. Operation of Isolator		Check the hand operation of the isolator for correct adjustment of blade and smooth hand operation.
4. Interlock		Check operation of interlock and lubricate all moving parts.
5. Earthing connections		Check & tight the earthing of the frame with its fittings.

AC/DC Distribution Panel as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Distribution panel	Check & clean the panel outside and inside with dry cloth.
2.	Voltmeter	Check the function of voltmeter.
3.	Earth terminals	Check & tight earth termination points on both ends. Attend if any deficiency.
4.	MCB	Check visual operation for proper functioning and rating.
5.	Temperature at termination points	Measure & record the temperature at termination points. If variation is more than 5 deg. with room temp, ensure the tightness.
6.	LED	Check & replace the defective LED with tested LED.
7.	Fuses	Check all fuses for proper rating & overheating, replace if necessary.
8.	Holes in panel	Check & plug the holes to avoid entry of moisture and insects.

Battery Charger as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out	Remark
1	Carry out following work in addition to fortnightly schedule		
2	Charger	Check & clean the charger outside and inside with dry cloth.	Clean
3	Voltmeter & Ammeter	Check the proper function of voltmeter & ammeter.	Working satisfactory
4	Overheating	Check any sign of overheating inside the charger. Find out the reason and attend it.	Attend

Condition Based Maintenance through Thermo vision Camera (TractionSubstation):

-Check thermal scanning by thermo vision camera.

-The temperature of hot spots is compared with adjacent/nearby similar components
Power block activities subjected to thermo vision reports in monthly maintenance.

Point to be checked:

1. Incoming & out going bus bar/cable termination.
2. Cable Termination of cable isolators ends connection.
3. All joints, connections terminals, jumpers, PG clamps of incoming switch yard and outgoing switch gear. Bus bar joints.
3. LA, CT, PT connections from bus bar and PG clamps.
4. Single pole isolator contact and bus bar.

Note: Single line diagram for all posts to be prepared indicating all cut points where temperature is to be observed & record to be maintained on diagram along with summary indicating the hot points observed & corrective action taken.

3 - Auxiliary Transformer and Change Over Panel of TSS, SP & SSP.

a) Annual schedule as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Carry out following work in addition to Quarterly schedule	
2.	Winding continuity	Measure & Record winding continuity on all tapings with multimeter/ 500 V megger.
3.	Tap changer	Check the smooth operation of tap changer on all tapings.
4.	Acidity of oil	Check the acidity of transformer oil.
5.	Ratio test	Conduct ratio test by applying AC supply to HV winding and measure the voltage at LV side winding.

6.	Jumpers	Check HT and LT jumpers & lugs for loose & flash mark. Replace if loose & flash.
7.	Painting	Paint to be done, if color of tank is faded/ rusted.
8.	DO fuse wire	Replace the fuse wire with new one.
9.	Contactor & MCB of Auto change over panel	Check their operation for normal working. If not working properly repair / replace it
10.	All the electrical connections in the changeover panel	Check all the electrical connections for looseness in the changeover panel & tight / replace them if required.
11.	Indication lamp at the front of the panel	Check the indication lamps for normal glowing. Attend / replace if not glowing properly
12.	Auto mode of the changeover panel	Check the panel for its working in Auto mode. Attend if not working properly.

b) Quarterly schedule as per latest RDSO guide line/HQ instruction/ OEM manual:

SN	Item	Inspection And Work To Be Carried Out
1.	Visual inspection of transformer.	Check any sign of oil leakage, overheating. If observe attend it.
2.	Cleaning of transformer	Clean the transformer externally - conservator, bushing and tank with clean cotton cloth.
3.	Silica gel	Check the condition of silica gel. If color is pink reactivate/ replace. Check oil in the cup of breather. Top up the oil in cup if required.
4.	Connections	Check, clean & tight all connections of HT and LT bushing terminals.
5.	Oil level in conservator	Check & top up oil level in conservator with new filtered oil up to mark, if required.
6.	AT enclosure	Check & clean AT enclosure of vegetation and other material.
7.	Condition of pole mounted ICDP switch, control panel and its fuses	Check condition of pole mounted ICDP switch, control panel and its fuses. Replace overheated of lugs, fuses and tighten loose connections.
8.	Caution board and anti climbing device	Check caution board and anti climbing device for availability and conditions.
9.	Earthing connections	Check & tight the earth connections. If found loose.
10.	Arcing horn	Check flash mark on arcing horn. Attend if flashover mark observe
11.	Drop Out (DO) fuse	Check condition of DO fuse barrel and fuse element. Replace the breakage, overheating and non standard fuse wire.
12.	Sound of equipment	Check any unusual sound of equipment.
13.	BDV of oil	Take sample of oil from bottom of tank and check the BDV of oil with BDV tester. In Pre and Post monsoon maintenance. BDV test kit provided by railway at depots.
14.	Additional arching horn on fixed 9- ton insulator	Check flash mark on arching horn and measure the gap of arching horn.
15.	Insulation resistance	Measure & record insulation resistance between i. HV- Earth (use 2.5 kV megger); ii. HV- LV (use 2.5 kV megger); iii. LV- Earth (use 500 V megger)

16.	Earth resistance	Check earth connections, measure & record the earth resistance by earth tester.
17.	LT cable	Check & replace damage, overheating of wires, lugs etc. of LT cable. Measure & record IR value of cable: i. Between AT to ICDP switch. ii. Between ICDP switch to control panel by 500 V megger.
18	Contactor & MCB of Auto change over panel	Check their operation for normal working. If not working properly repair / replace it
19	All the electrical connections in the changeover panel	Check all the electrical connections for looseness in the changeover panel & tight / replace them if required.
20	Indication lamp at the front of the panel	Check the indication lamps for normal glowing. Attend / replace if not glowing properly
21	Auto mode of the changeover panel	Check the panel for its working in Auto mode. Attend if not working properly.

4. Breakdown calls

TSS / SP / SSP/ AT:

- (a) At the time of any breakdown, the contractor's representative will be intimated on telephone and the contractor should deploy adequate man power comprising Supervisor, Skilled labours (ITI/ Inter Science pass) and Unskilled labours & be available as and when any equipment / circuit get faulty of any TSS / SP / SSP/ AT. The contractor should have adequate competent staff with him to meet any exigency/emergent situation. The contractor should have the necessary tools & tackles. Contractor shall provide for transportation bearing the cost for his staff by road/train for foot patrolling/AT fuse replacement/foreign body removal/any other activities specified by railway representative. In break down cases effecting train movement contractor representative with all men and materials has to move immediately along with Railway staff by Railway transportation.
- (b) All the materials/tools & plants/spares required for attending break down will have to be arranged by the contractor. All the required materials should be planned and arranged by the contractors well in advance.

5. Manning of switching stations in case of failure of SCADA, VIP movement & OFC block:

In case of failure of SCADA, VIP movement & OFC block manning of the concerned switching post will have to be done till the rectification of fault. The prices shall cover the payment/wages to the staff to be deployed at each switching station as directed by Railway's Engineer. Manning shall be done as per the requirement of the Railways. Contractor labours comprising Skilled (ITI / Inter Science pass) and Unskilled should be there. The Skilled staff should be fully conversant with operation of various equipments installed in switching post. The staff shall be deployed after test and trial by Railway and on issue of competency certificate. The staff deployed shall act in accordance with instructions/directions given by Traction Power Controller/authorized representative of Railway. The staff shall not leave the working place (Switching yards) in any case without prior permission of purchaser's representative. The price shall cover costs of stores, T&P and conveyance charges to the staff for going and coming to the working place.

6. Battery maintenance-

Maintenance of Battery & Battery Charger of each switching stations (All TSSs)/posts (All SPs & SSPs) should be done fortnightly as per the following check lists and recorded in the register available at switching stations/posts :-

SN	Item	Inspection And Work To Be Carried Out
1.	Specific gravity	Check and record the specific gravity of each cell.
2.	Distilled water	Check the level of electrolyte of the cells. Top up, if necessary. Distill water arranged by Contractor.

3.	Temperature	Check & record the temperature of each cell.
4.	Sulphation	Check & clean Sulphation on terminal connectors & apply petroleum jelly.
5.	Condition of plate	Check & clean physical condition such as cracks, distortions and accumulation of whitish deposit.
6.	Cell voltage	Check & record the voltage of each the cells.
7.	Total voltage	Check & record the total voltage of the battery.
8.	Vent plugs	Check the clear passage of gases. If hole blocked, clean it.
9.	Sedimentation and any internal damage	Check the cells for undue sedimentation and any internal damage. If observe clean it.
10.	Inter cell connections	Check & clean with dry cloth. Replace defective nuts, bolts & washers.
11	AC & DC panel Voltage	Check AC and DC voltage on panel and record AC and DC voltage.
12.	Battery charger	Check smooth operation of all switches of battery charger. Note charging rate and AC Voltage
13.	Battery room	Clean the room.
14	Charger	Check & clean the charger outside and inside with dry cloth.
15	Voltmeter & Ammeter	Check the proper function of voltmeter & ammeter.
16.	Overheating	Check any sign of overheating inside the charger. Find out the reason and attend it.
17	Terminal connection	Check the terminal connection on the disconnecting link. Replace any overheating of terminal connectors, if found overheated or rusted.
18	Earth terminals	Check & tight the earth connections. If found loose.
19	MCB	Check visual operation for proper functioning and rating.
20	Three pin plug with socket	Check & replace overheating or defective three pin plug/ socket.
21	Termination ends of the cable	Check & tight all termination ends of the cable, if loose.
22.	Transformer winding	Measure & record the insulation resistance of winding at room temperature with 500 V megger.
23.	Electrolyte condensor	Measure & record the capacitance value with LCR meter. Replace if open circuited/ short circuited
24.	Cable glands	Check cable holes and unwanted holes. Provide proper size of glands, close unwanted holes and gaps.
25.	Cable ends	Check for crimping of cable ends with connectors/lugs and cable ends crimped with suitable size of connectors/lugs.

7. Dismantling, supply, erection & commissioning of LA, CT, PT, CB & BM in case of break down/bursting of the equipment- As per annexure-A

In case of break down/bursting of the equipment, contractor should dismantled the burst equipments and replace with new equipment and also erect & commissioned the same. Supplied equipment should of RDSO/CORE approved source dully inspected by the RITES/agency authorised by RDSO/CORE. An original inspection certificate alongwith DC (purchased from OEM/authorised dealer) should be submitted to railways representative authorised by the Engineer incharge.

Annexure-A Spares (Optional Items) required for maintenance of TSS, SP & SSP

SN	Description of Work	Unit Rates in Rs.
1	Erection of Lightning Arrester- 42 kV	569.83
2	Erection of Lightning Arrester - 60 kV	1739.64
3	Erection of CT- 25 KV	2048.68
4	Erection of PT- 25 KV	1472.12
5	Erection of CB- 25 KV	6602.63
6	Erection of BM - 25 KV	5776.98
7	Erection of CB- 132 KV	6233.93
8	Dismantling of Lightning Arrester- 25KV	115.80
9	Dismantling of Lightning Arrester- 42KV	796.57
10	Dismantling of Lightning Arrester- 60 KV	824.04
11	Dismantling of CT- 25 KV	358.85
12	Dismantling of PT- 25 KV	555.54
13	Dismantling of CB- 25 KV	6014.04
14	Dismantling of BM- 25 KV	1631.26
15	Dismantling of CB- 132 KV DP	1603.91
16	Erection of battery (one cell) 40 AH	16.89
17	Erection of battery (one cell) 200 AH	82.03
18	Erection of battery (one set = 55 cells) 40 AH	1890.76
19	Erection of battery (one set = 55 cells) 200 AH	9268.76
20	Erection of Battery charger 40 AH	12352.90
21	Erection of Battery charger 200 AH	1091.96
22	Dismantling of 10 KVA AT	5161.14
23	Erection of 10 KVA AT	5441.73
24	Dismantling of 25 KVA AT	7528.27
25	Erection of 25 KVA AT	12547.64
26	Erection of Auto changeover panel for 10 KVA AT	1882.23
27	Erection of Auto changeover panel for 25 KVA AT	3764.46
28	Replacement of Buchholz relay of Power Transformers	12269.00

8- Rectification of 25 KV Dropout Fuse Rectification of 25 kV dropout fuse shall be carried out in line with Para 20713 of ACTM Vol-II part-I of Indian Railways.

The price shall cover Rectification of 25 kV dropout fuse in Auxiliary Transformer in concerned section. Rectification to be done immediately, as and when required. Nominated staff for the above job should be available to reach the working spot round the clock.

9. Repair of Earth pit/ Equipment Foundation with Concrete works by CC foundation (1:3:6) including plastering if required by mortar ratio (1:4) including digging of soil/surface as per instruction of Engineer in charge at site.

The price shall cover following activities:-

Repair of Earth pit/ Equipment Foundation with Concrete works by CC Foundation (1:3:6) including plastering if required by mortar ratio (1:4) including digging of soil/surface as per instruction of Engineer in charge at site.

10. Supply of steel reinforcement for RCC work.

The price shall cover following activities:-

Supply of Standard Steel reinforcement for RCC work required in work of Sl. No. 10.

11. Hiring of 15 T Crane on Hourly basis.

The price shall cover Hiring of 15T capacity road crane with more than 10 meter jib height. The requirement of crane is on need basis and when required. Payment will be made on Hourly basis. All tools & materials required for crane operation to be arranged by crane contractor.

12&13. Supply and spreading of Gravel/ Ballast in the Switch Yard.

The price shall be per cum. rate and shall cover supply and spreading of uniformly graded gravel/ballast of size 20/25mm, in the outdoor switch yard after completing all the works and leveling the switch yard area, but before commissioning of the sub-station. The gravel/ballast shall be of good quality and free from any dust and dirt. Prior approval of ballast shall be taken from the Purchaser for the gravel samples. The gravel/ballast shall be spread out uniformly to a depth of 10cm. over the area indicated by the Purchaser's Engineer.

14. Provision of Painting & Marking of implantation, emergency phone socket direction, rail level, Km's number of Structures, OHE height and ATD's temperature marking on ATD structures.

The price shall be Provision of Painting & Marking of implantation, emergency phone socket direction, rail level, Km's number of Structures, OHE height and ATD's temperature marking on ATD structures.

Note:- Location may be changed as per direction of site in-charge.

15. Provision of painting of balance weight of ATD by Aluminium paint (Double Coat) (Rate inclusive of required material cost i.e Paint, brush etc.).

The price shall be Provision of painting of balance weight of ATD by Aluminium paint (Double Coat) (Rate inclusive of required material cost i.e Paint, brush etc.)

Note:- Location may be changed as per direction of site in-charge.

Name of work - Outsourcing of PSI Maintenance Activities of BSB Division CHPG - GKC Section including HTW/SP of N.E. Railways for 2 Years.

Section-1 (PSI Maintenance)						
Item No.	Description of item	UOM	Qty	Unit rate		Amount (Rs.)
				Supply	Erection	
1	Maintenance of Traction Sub-Station (TSS)					
a	Yearly	Each	6	0	142534.37	855206.22
b	Half Yearly	Each	6	0	72795.32	436771.92
c	Monthly	Each	60	0	38942.53	2336551.80
2	Maintenance of Sectioning Post (SP) & Sub-Sectioning Post (SSP)					
a	Yearly	Each	26	0	38227.91	993925.66
b	Half Yearly	Each	26	0	20768.65	539984.90
c	Monthly	Each	260	0	5832.46	1516439.60
3	Auxiliary Transformer and Change over panel of TSS, SP & SSP.					
a	Yearly	Each	253	0	6737.44	1704572.32
b	Quarterly	Each	651	0	3068.59	1997652.09
4	Break Down Calls					
a	TSS (8 Hrs.)	Each	64	0	5913.00	378432.00
b	SP/SSP (8 Hrs.)	Each	64	0	3977.03	254529.92
c	AT (8 Hrs.)	Each	302	0	3974.18	1200202.36
5	Manning of Switching Stations in case of failure of SCADA, VIP movement & OFC block	Each	488	0	2246.23	1096160.24
6	Battery maintenance	Each	768	0	1905.96	1463777.28
A – Sum of item 1 to 6						14774206.31
7	Dismantling, erection & commissioning of LA, CT, PT, CB & BM in case of break down/ bursting of the equipment on need basis - As per annexure-A	Lump sum		0	109641.61	109641.61
B – Sum of item 7						109641.61
Miscellaneous						
8	Rectification of 25 KV Dropout Fuse	Nos	615	0	1195.95	735509.25
9	Repair of earth pit/ equipment foundation with concrete works by CC foundation (1:3:6) including plastering if required by mortar ratio (1:4) including digging of soil/surface as per	CUM	132	0	7876.40	1039684.80

RAILWAY CONTRACT AGREEMENT OF WORKS
 CONTRACT AGREEMENT NO. _____ DATED _____

ARTICLES OF AGREEMENT made this _____ day of _____ 20____
 _____ between President of India acting
 through the Railway Administration hereafter called the "Railway" of the one part
 and _____ herein after called the
 "Contractor" of other part.

WHEREAS the Contractor has agreed with the Railway for
 performance of the works set forth in the Bill(s) of Quantities hereto annexed upon
 the Standard General Conditions of Contract, updated with correction slips issued
 up to date of inviting tender or as otherwise specified in the tender documents and
 the Specifications of _____ updated _____ with
 correction slips issued up to date of inviting tender or as otherwise specified in the
 tender documents and the applicable Standard Schedule of Rates (SSOR) of
 _____ updated with correction slips issued up to date of inviting tender or as
 otherwise specified in the tender documents and the Special Conditions and
 Special Specifications, if any and in conformity with the drawings here-into
 annexed AND WHEREAS the performance of the said works is an act in which
 the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration to the payments
 to be made by the Railways, the Contractors will duly perform the said works in the
 said Bill(s) of Quantities set forth and shall execute the same with great
 promptness, care and accuracy in a workman like manner to the satisfaction of
 the Railway and will complete the same in accordance with the said
 specifications and said drawings and said conditions of contract on or before the
 day of _____ 20____ and _____ will maintain
 the said works for a period of _____ Calendar months from
 the certified date of their completion and will observe, fulfill and keep all the
 conditions therein mentioned (which shall be deemed and taken to be part of this
 contract, as if the same have been fully set forth herein), AND the Railway, both
 hereby agree that if the Contractor shall duly perform the said works in the
 manner aforesaid and _____ observe and keep the
 said terms and conditions, the Railway will pay or cause to be paid to the
 Contractor for the said works on the final completion thereof the amount due in
 respect thereof at the rates specified in the Bill(s) of Quantities hereto annexed.

Contractor _____ (Signature) Railway: Designation _____
 Address _____ (For President of India)
 Date _____ Date _____

Signature of **Witnesses** (to Signature of Contractor) with address:

Witnesses:

ANNEXURE-V (A)

Reference-Para 6.1 of ITT

(This is certificate is to be given by attorney/authorized signatory/each member of Partnership firm/Joint Venture (JV)/Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP) etc.)

I/We.....(Name), attorney/authorized signatory of the (constituent firm/constituent partner) and member/partner of the (tendering firm) here by solemnly affirm and state as under:

1. I/We certify that (constituent firm/constituent partner) is/are not blacklisted or debarred by Railway or any other Ministry/Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/member of the partnership firm/LLP/JV/Society/Trust.

2. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We here by certify that I/We fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed),

SEAL AND SIGNATURE OF
THE CONSTITUTE
FIRM/CONSTITUENT PARTNER

Place:

Dated:

ANNEXURE – VI

Reference -Para 10.3 & 17.15.3 of
Tender Form (Second Sheet) of
Annexure I of ITT

TENDERER'S CREDENTIALS (BID CAPACITY) RAILWAY

For tenders having advertised value more than Rs 10 crore wherein eligibility criteria includes bid capacity also, the tenderer will be qualified only if its available bid capacity is equal to or more than the total bid value of the present tender. The available bid capacity shall be calculated as under:

Available Bid Capacity = $[A \times N \times 2] - 0.33 \times N \times B$ Where,

A = Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender), taking into account the completed as well as works in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

B = Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender.

Note:

(a) The Tenderer (s) shall furnish the details of -

- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and
- (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

(b) In case if a bidder is JV, the tenderer (s) must furnish the details of

- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and
- (ii) Existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed pro-forma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started up to the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified

by Chartered Accountant.

- (c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.
- (d) The arithmetic sum of individual “bid capacity” of all the members shall be taken as JV’s “bid capacity”.
- (e) In case, the tenderer/s failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.
- (f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

Annexure –VIA

Para 5 of the Instructions to Tenderers

(Bid Security)

Bank Guarantee Bond from any scheduled commercial bank of India
(On non-judicial stamp paper, which should be in the name of the Executing Bank).

Name of the Bank: -----

President of
India, Acting
through,
..... Railway,

Beneficiary..... Railway

Date:.....

Bank Guarantee Bond No.:

Date:-----

In consideration of the President of India acting through **(Designation & address of Contract Signing Authority)**, Railway,, (hereinafter called "The Railway") having invited the bid forthrough Notice inviting tender (NIT) No.. , We have been informed that **[Insert name of the Bidder]** (hereinafter called "the Bidder") intends to submit its bid (hereinafter called "the Bid").

WHEREAS, the Bidder is required to furnish Bid Security for the sum of **[Insert required Value of Bid Security]**, in the form of Bank Guarantee, according to conditions of Bid.

AND

WHEREAS,**[Insert Name of the Bank]**, with its Branch **[Insert Address]** having its Headquarters office at..... **[Insert Address]**, hereinafter called the **Bank**, acting through**[Insert Name and Designation of the authorised persons of the Bank]**, have, at the request of the Bidder, agreed to give guarantee for Bid Security as hereinafter contained, in favour of the Railway:

1. KNOW ALL MEN that by these present that I/We the undersigned **[Insert name(s) of authorized representatives of the Bank]**, being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway full amount in the sum of **[Insert required Value of Bid Security]** as above stated.
2. The Bank undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.
3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the Bidder and without the Railway

being required to show grounds or give reasons for its demand of the amount so demanded.

4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway at anytime.
6. This guarantee will remain valid and effective from.....***[insert date of issue]***till***[insert date, which should be minimum 90 days beyond the expiry of validity of Bid]***. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
7. The Bank Guarantee is unconditional and irrevocable.
8. The expressions Bank and Railway herein before used shall include their respective successors and assigns.
9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

IFSC CODE	SBIN000RAIL
IFSC TYPE	BRANCH
BANK NAME	STATE BANK OF INDIA
BRANCH NAME	RAIL
CITY NAME	NAVI MUMBAI
ADDRESS	SECTOR-11, CBD BELAPUR, NAVI MUMBAI
DISTRICT	NAVI MUMBAI
STATE	MAHARASHTRA
BG ENABLED	YES

11. The Guarantee shall be valid in addition to and without prejudice to any other security Guarantee(s) of Bidder in favour of the Railway. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Railway.

Date

Place..... Bank's Seal and authorized signature(s)

[Name in Block letters]

[Designation with Code No.].....

Witness:

[P/ Attorney] No.

1 Signature, Name & Address &
Seal

2 Signature, Name& address & Seal

Bank's Seal

*[P/ Attorney]*No.

Note: All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.

Reference -Para 10.2 & 17.15.2 of Tender Form (Second Sheet) of Annexure I of ITT

Each Bidder or each member of a JV must fill in this form

separately: NAME OF BIDDER/JV PARTNER:

Annual Contractual Turnover Data for the Previous 3/4 Years(Contractual Payment only)			
Year	Amount Currency	Exchang eRate	Indian National Rupees Equivalent
Average Annual Contractual Turnover for last 3 years			

1. The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

SEAL AND SIGNATURE OF THE BIDDER

Certified that all figures and facts submitted in this form have been furnished after full consideration of all observations/notes in Auditor’s reports._____

(Signature **of**
Chartered Accountant) Name
of CA:_____

Registration No: _____

(Seal)

PROFORMA FOR TIME EXTENSION

No. _____

Dated: _____

Sub: (i) _____ (name of work).

(ii) Acceptance letter no. _____

(iii) Understanding/Agreement no. _____

Ref: _____ (Quote specific application of Contractor for extension to the date received) _____

Dear Sir,

1. The stipulated date for completion of the work mentioned above is _____. From 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').

2. Expecting that you may be able to complete the work if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____.

3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _ (give here the stipulated date for completion with/without any liquidated damage fixed earlier) will be recovered from you as mentioned in Clause 17B of the Standard General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.

4. 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.

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

6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting upto this extension to complete the work by _ (here mention the extended date), further action will be taken in terms of Clause 62 of the Standard General Conditions of Contract.

Yours faithfully

For and on behalf of the President
of India

(Reference Clause 62. (1) Registered Acknowledgement Due

**PROFORMA OF 7 DAYS NOTICE FOR WORKS AS A WHOLE/ IN PARTS
(DETAILS OF PART OF WORK TO BE MENTIONED)**

RAILWAY

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no. , dated____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work/ part of work (details of part of work to be mentioned).

2. Your attention is invited to this office/Chief Engineer's office letter no.

_____, dated_____in reference to your representation, dated_____.

3. As you have failed to abide by the instructions issued to commence the work /to show adequate progress of work you are hereby given 7 days' notice in accordance with Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the Standard General Conditions of Contract viz. to terminate your Contract and complete the balance work without your participation will be taken.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President
of India

Reference Para 62(1)Registered Acknowledgement Due

PROFORMA OF 48 HRS. NOTICE FOR WHOLE WORK

_____ **RAILWAY**

(Without Prejudice)

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Seven days' notice under Clause 62 of the Standard General Conditions of Contract was given to you under this office letter of even no., dated ; but you have taken no action to commence the work/show adequate progress of the work.

2. You are hereby given 48 hours' notice in terms of Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above contract will be rescinded and the work under this contract will be carried out independently without your participation and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed and any other consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

Reference Para 62.(1) Registered Acknowledgement Due

PROFORMA OF TERMINATION NOTICE

_____ **RAILWAY**

(Without Prejudice)

No. _____

To

Dated _____

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated; but you have taken no action to commence the work/show adequate progress of the work.

Since the period of 48 hours' notice has already expired, the above contract stands rescinded in terms of Clause 62 of the Standard General Conditions of Contract and the balance work under this contract will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

NORTH EASTERN RAILWAY

[ELECTRICAL TRD

DEPARTMENT]

SPECIMEN FORMAT OF BANK

GUARANTEE BOND PROFORMA FOR

BANK GUARANTEE

(Executed on non judicial stamp paper)

Name of the Bank _____

Bank Guarantee Bond No. and date _____, Valid up to
_____, Amount of Bank Guarantee Bond
_____.

PERFORMANCE GUARANTEE BOND

In consideration of the President of India acting through, Senior Divisional Electrical Engineer/General, Divisional Electrical Engineer/General/N.E. Railway, Varanasi - 221002 (hereinafter called "The Government") having agreed under the terms and conditions of contract under Acceptance Letter No.----- dated -----

----- made between Senior Divisional Electrical Engineer/ General, Divisional Electrical Engineer/General/N.E. Railway, Varanasi -221002 and agency M/s/Shri _____ (herein after called "the said contractor(s)" for the work "_____" (here in after called "the said contract") having agreed for submission of a irrevocable Bank Guarantee Bond equivalent to 5% of the contract value as indicated in the aforesaid contract for Rs._____(Rupees _____ only) as a performance security Guarantee Bond from the contractor (s) for compliance of his obligations in accordance with the terms & conditions in the aforesaid contract.

1. We, (indicate the name of the Bank) hereinafter referred to as the Bank, under - take to pay to the Government an amount not exceeding Rs.----- (Rupees ----- only) on demand by the Government.

2. We,----- (indicate the name of the bank), further agree that and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the F.A. & C.A.O/N.E. Railway, Varanasi, stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the Government by reason of any breach by the said contractor of any of the terms of conditions contained in the said contract/agreement or by reason of the contractor 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 Rs ----- (Rupees Only).

3. (a) We,----- (indicate the name of Bank) further undertake to pay to the Government any money so demanded notwithstanding any

dispute or dispute raised by the contractor(s) in any suite or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.

(a) 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) shall have no claim against us for making such payment.

4. We,------(indicate the name of bank) to 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 Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by (contracting authority) on behalf of the Government, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharge this guarantee.

4 (a) Notwithstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the Government or until (date of validity/ extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the Government within validity/extended period of validity of guarantee from the aforesaid date.

(b) Provided always that We----- (indicate the name of the Bank) unconditionally undertakes to renew this guarantee or to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case may be on being called upon to do so by the Government. If the guarantee is not renewed or the period extended on demand, we -----

----- (indicate the name of the Bank) shall pay the Government the full amount of guarantee on demand and without demur.

6. We, ----- (indicate the name of Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the Government against the said contractor (s) and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance act or omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties for the said provision would relive us from the liability.

7. This guarantee will not be discharged by any change in the constitution of the Bank or the Contractor(s).

8. We-----, (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.

9. This guarantee shall be valid up to -----(Date of Completion plus 60 days).

Unless extended on demand by Government. Notwithstanding anything to the contrary contained hereinbefore, our liability under this guarantee is restricted to Rs.....

(Rupees.....) unless a demand under this guarantee is made on us in writing on or before We shall be discharged from our liabilities under this guarantee thereafter.

Dated the day of .

(indicate the day) (indicate the month and year)

Signature and seal of authorized official of Bank Designation

(Name of
bank) Full
Address

NORTH EASTERN RAILWAY
Insurance Surety Bond for Performance Security

Name of the issuer of surety bond:
President of India,
Acting
through.....,
Railway.

Date.....

Surety Bond No:..... Issue Date:.....
Amount of Bond:..... Expiry Date:.....

WHEREAS, In consideration of the President of India acting through (Designation & address of contract signing authority),.....Railway,....., (hereinafter called "The Railway") having accepted the bid of **M/S XXXX** hereinafter called the contractor, for the work of **XXX** under invitation for bids No **XXXX** Dated **XXXXX**, Vide Letter of Acceptance No.....

AND

WHEREAS, the contractor is required to furnish Performance Security for the sum of **Rs. XXXX (Rupees XXXX Only)**, in the form of Surety Bond, being a condition precedent to the signing of the contract agreement.

SB No:
Date:

WHEREAS, we, ----- (Name of insurance company) hereinafter called the Surety, acting through [Designation(s) of the authorized person of the Surety], have, at the request of the **M/s. XXXX** contractor, agreed to give Bond for performance security/additional performance security as hereinafter contained:

1. KNOW ALL MEN by these present that I/We, the undersigned [Insert name(s) of authorized representatives of the Surety], being fully authorized to sign and incur obligations for and on behalf of the Surety, confirm that the Surety, hereby, unconditionally and irrevocably Bond to pay the Railway the full amount in the sum of **XXXX (Rupees XXXX Only)** as above stated.
2. The Surety undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Surety shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/pending before any Court tribunal, arbitration or any authority or any threatened litigation by the Bidder or Bank.
3. On payment of any amount less than aforementioned full amount, as per demand of the Railway, the Bond shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Railway.
4. The Surety shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the contractor and without the Railway being required to show grounds or give reasons for its demand or the amount demanded.
5. The Surety Bond shall be unconditional and irrevocable.
6. The Bond hereinbefore shall not be affected by any change in the constitution of the Surety or in the constitution of the Contractor.

7. The Surety agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Railway and the Contractor, will in any way release us from the liability under this Bond; and the Surety, hereby, waives any requirement for notice of any such change, addition or modification to the Surety.

8. This Bond is valid and effective from the date of its issue, which is **[insert date of issue]**. The Bond and our obligations under it will expire on **XXX (Expiry Date)**. All demands for payment under the Bond must be received by us on or before that date.

9. The Surety agrees that the Railways right to demand payment of aforementioned full amount in one instance or demand payments in parts totalling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Railway or the Bond is released by Railway before the Expiry date.

10. The Surety agrees that its obligation to pay any amount demanded by the Railway before the expiry of this Bond will continue until the amount demanded has been paid in full.

11. The expressions Surety and Railway hereinbefore used shall include their respective successors, administrators and assigns.

12. The Surety hereby undertakes not to revoke the Bond during its currency, except with the previous consent in writing of the Railway. This Bond is subject to the Uniform Rules for Demand Bonds, ICC Publication No. 758.

13. We, the Surety Insurer, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, tribunal, arbitrator or any other authority.

14. The Bond shall be in addition to and without prejudice to any other security Bond (s) of the contractor in favour of the Railway available with the Railway. The Surety, under this Bond, shall be deemed as Principal Debtor of the Railway.

Not with standing anything to the contrary contained in these presents,

a. Our liability under this Surety Bond shall not exceed **XXXX (Rupees XXXXX Only)**.

b. This Surety Bond shall be valid up to **XXXX** (being the date of expiry);

c. Unless the bank is served a written claim or demand on or before **XXXX [date of expiry]** all rights under this Bond shall be forfeited and the Surety shall be relieved and discharged from all liabilities under this Bond irrespective of whether or not the original Surety bond is returned to the Surety.

Dated the day of 20.....

15. The Insurance Surety Bond shall be verified by sending mail to [customer.care@sbigeneral.in].

Place.....

Bank's Seal and authorized signature(s)
[Name in Block letters].....
[Designation with Code No.].....
[P/Attorney] No.

Witness

- 1.
- 2.

[Note: All italicized texts are for guidance on how to prepare this Insurance Surety Bond and shall be deleted from the final document.]

NORTH EASTERN RAILWAY
[ELECTRICAL TRD DEPARTMENT]

HISTORY SHEET OF THE TENDERER

i]	Name of the Company :	
ii]	Address of Registered Office Phone:	
	Fax: e-mail ID:	
iii]	Constitution of the Company/Firm : Ownership particulars whether Private Ltd., Public Ltd., or	
a]	Partnership firm or Proprietorship Firm or any other type duly supported by the documents such as Partnership Deed and Articles of constitution etc. as applicable. :	
b]	Name and address of collaborator[s] : Nature of participation by collaborator[s] in share holding of the	
c]	Company : Extent and nature of proposed participation by collaborator[s] in	
d]	execution of this work :	
iv]	Number of years the firm has been in operation in India under its present :	
v]	Any other information	

Signature of tenderer
Along with Seal

NORTH EASTERN RAILWAY
[ELECTRICAL TRD DEPARTMENT]
DETAILS OF TECHNICAL AND OTHER PERSONNELS AVAILABLE ON
HAND and PROPOSED TO BE ENGAGED IN WORK

S1	Name	Age	Technical qualification[s]	Position with the tenderer	Commencement of present employment	Total experience	Emoluments
1	2	3	4	5	6	7	8

Signature of tenderer
Along with Seal

ANNEXURE – ‘D’**NORTH EASTERN RAILWAY**

[ELECTRICAL TRD DEPARTMENT]

DETAILS OF CONSTRUCTION MACHINERIES, TOOLS and PLANTS,
VEHICLES ETC.AVAILABLE ON HAND AND PROPOSED TO BE UTILIZED IN
WORK

Sl. No	Descripti on of equipmen ts	Number available [Owned/h ired]	Date of purcha se	Date of manufac ture	Make	How driven [i.e] Petrol/ Diesel/elect rical	Conditio n of the equipm ent	Where the equipm ent can be inspect ed
1	2	3	4	5	6	7	8	9

Signature of tenderer
Along with Seal

NORTH EASTERN RAILWAY
[ELECTRICAL TRD DEPARTMENT]

ANNEXURE – ‘ E’

DETAILS OF WORKS COMPLETED DURING PREVIOUS SEVEN
FINANCIAL YEARS and CURRENT YEAR BY THE TENDERER[s].

Sl	Name of the work with value of contract	Full address of the authority under whom the work has been executed with Telephone No. and Fax No	Date of Award and Original completion period	Actual Date commencement and Actual Date of completion	Final value of contract in Rs.	Documentary proof of completion of work [enclose copies separately for each work and indicate Annexure No. in this column]
1	2	3	4	5	6	7

Signature of Tenderer
Along with Seal

NORTH EASTERN RAILWAY

[ELECTRICAL TRD DEPARTMENT]

ANNEXURE – ‘ F ’**DETAILS OF WORKS ON HAND OF THE TENDERER[s]**

Sl	Name of work	Total cost of contact value in Rs/-	Month and year of commencement	Date of award and Completion period	Present progress		Full address of the authority under whom the work is being executed	Documentary proof [enclose copies of acceptance letter and proof regarding present progress etc. and indicate Annexure No. in this column]
					Financial	Physical		
1	2	3	4	5	6	7	8	9

Signature of tenderer
Along with seal

Constitution of Firm

1. Full name of contractor/s construction firm and year of establishment.
2. Registered Head Office Address.
3. Branch Office in India.
- 4 Address on which correspondence regarding this tender should be done.
5. Constitution of firm, give full details including name of partners/executives/power of attorney/holders etc.
6. Particulars of registrations with Government/Semi Govt. Organization, Public Sectors Undertakings and Local bodies etc.

Signature of the Tenderer/s.

Real Time Gross Settlement (RTGS)/ National Electronic Fund Transfer
(NEFT) (Model Mandate Form)

(Investor/customer's option to receive payments through RTGS/NEFT)

1. Investor/customer's name
2. Particulars of Bank Account:
 - A) Name of the Bank:
 - B) Name of the Branch. Address
Telephone No.
 - C) RTGS/NEFT IFS Code.
 - D) Type of the account (S.B./ Current or Cash Credit) With code(10/11/13).
 - E) Ledger and Ledger folio number.
 - F) Account number (as appearing on the Cheque book) (in lieu of the bank certificate to be obtained as under, please attach a blank cancelled cheque or a photocopy of a cheque or front page of your savings bank pass book issued by your bank for verification of the above particulars)
3. Date of effect

I 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, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under the scheme

Date

(.....)

Signature of the Investor/
Customer

Certified that the particulars furnished above are correct as per our records.

Signature of Bank
Authority (With seal)

Signature of the tenderer

TERMS OF PAYMENTS

SCOPE

The unit rates given against various items of work in tender papers are the schedule of rates. The prices so obtained shall be the unit prices for the various items of work given in schedule of rates and quantities.

UNIT PRICES

The unit prices for supply and erection includes all taxes i.e. GST, duties and applicable on this works contract. The purchaser will entertain no reimbursement on account of Octroi duty. The price shall also include provision for losses and wastages in transit and erection.

QUANTITIES:

The approximate estimated quantities of various items of work are included in Tender Schedule.

NON-SCHEDULE ITEMS:

If during the execution of the work the contractor is called upon to carry out any new item of work not included in Schedules, the contractor shall execute such works at such price as may be mutually agreed with the Purchaser before commencement after obtaining the competent authority's approval and sanction.

Terms of Payment : The following payment terms shall be applicable subject to certification of work to the satisfaction of the Engineer or his authorized railway representative :-

(a) The 100% payment shall be made on monthly basis for the actual work of quantity of schedule work completion after deducting all taxes, charges as applicable and penalties etc. if any (For Sub section - 1 Part A Item no. 1 to 6 and Part C Item no. 8 to 15 of explanatory note).

(b) Spare Items (included in Sub section – 1 Part B Item no. 7 of Explanatory note):

(i) Contractor has to arrange minimum spare items as given in Annexure-A of Part - B of explanatory note of Sub section - 1 after awarding of contract as per the requirement of Railway supervisor in-charge and the material mentioned in the supply prescribed in Annexure – A is to be supplied by the contractor, other materials will be supplied by the Railway administration that is nor mentioned in Annexure – A.

All the bills for payment shall be accompanied with the following :-

(i) Certificate of Challan, Inspection, test report and receipt of material by the consignee.

(ii) Certificate of receipt of materials in good condition at Purchaser's depot duly accepted by the Purchaser's Engineers.

All the above payments shall be subject to observance of all formalities viz. signing of agreement furnishing P.G., verification of power of attorney, MB formalities, bill in Railways standard form etc.

All the bills for payment shall be accompanied with the following:-

Certificate of completion of work.

Inspection certificate issued by Sr. Divisional Electrical Engineer (TRD) N.E., Varanasi or his

authorized representative.

All Govt, levies such as Income Tax, Works Contract Tax etc. which are applicable from time to time, will be deducted from the contractor's bill.

To make the payments through ECS/ EFT to contractors the following conditions are applicable:-

- a. Tenderer to give consent in a mandate form for receipt of payment through ECS/ EFT.
- b. Tenderer to provide the details of Bank A/c in line with RBI guidelines for the same. These details will include Bank Name, Branch Name & address, Account type, IFSC Code, Bank A/c No. and Bank & Branch Code as appearing on MICR cheque issued by bank.
- c. Tenderer to attach certificate from their bank certifying the correctness of all above mentioned.

Issue of materials to the contractor for erection:

The material will be re-issued by Railways to the contractor for execution of work and contractor shall load, unload and transport the issued material to the work site at his own cost.

Final settlement: On successful completion of guarantee period and issue of certificate of final acceptance of entire installations, the security deposit will be refunded / or Bank guarantee will be returned to the contractor after adjustment of any dues payable by the contractor to the purchaser.

PRICE VARIATION CLAUSE (PVC): No price variation clause will be applicable for this tender.

Imposition of token penalty for delay in the completion of work

The existing clause 19(B) of GCC provides for recovery of liquidated damages from the contractor for delay in completion of work. It has now been decided that the competent authority while granting extension to the currency of contract under clause 17(B) of GCC may also consider levy of token penalty as deemed fit based on the merit of the case.

VITIATION Statement on increased / decreased in Qty- During execution of work, increase / decrease in quantities shall be approved keeping in view that there should not be any vitiation in tender. In case of any VITIATION, the payment of increased/decreased quantities shall be made as per lowest offer rates for respective subsection.

Reconciliation of materials supplied by the purchaser.

- a) The following procedure shall be adopted for the final reconciliation of the various equipment's, materials fittings and conductors supplied by the purchaser.
- b) All the materials supplied by the purchaser shall be correctly accounted for and quantities reconciled on completion of the work by the Contractor. On completion of work, all surplus materials supplied by the Purchaser together with the ones found

defective or that have become defective or broken on account of defective materials and/or workmanship shall be returned to purchaser by the Contractor.

Note (i) If there are any shortage during final reconciliation, their cost will be recovered by the purchaser from the contractor at the book rate or the last purchase rate or the prevailing market rate whichever is higher plus 5% on account of initial freight, 2% on account of incidental charges together with supervision charges @ 12.5% of the total cost inclusive of material freight and incidental charges. Freight between the purchaser's source of supply and the contractor's depot shall be on the Contractor's account.

(ii) No recovery/reconciliation shall however, be made as per the preceding paras if the items stated under clause 1.4.6 are made contractor supply by including the respective optional items in the contract.

Released Material

The contractor shall return to the purchaser all the released OHE material from the existing system at the first available opportunity but not later than a week at the purchaser's store. If the contractor fails to return the released material in specified time, the cost of released material will be recovered from the progress bill before releasing any payment.

Conservancy cess charges shall be recovered from the contractor's bill @ given below:

(Annexure to Board's letter no. F(X)I-95/1/1 Dated 07.09.2021) Rate of recovery of conservancy cess charges with effect from 01.07.2021 to 30.06.2026

Description of Category	Average no. of labourers/workman employed per day	Conservancy cess charges to be recovered (per month)
1- Railway Contractors		
(a) Engg. Works contractors (Engg., Elect., Mech. & Signal etc.)	1 to 5	Rs. 159.00
	6 to 10	Rs. 312.00
	11 to 25	Rs. 785.00
(b) Genl. Goods handling contractors including contractors awarded by store deptt.	26 to 50	Rs. 1143.00
	51 to 100	Rs. 1534.00
	101 to 200	Rs. 1926.00
(c) Coal handling ashpit cleaning contractors	201 to 300	Rs. 2318.00
(d) Railway siding use by the contractors.	301 to 750	Rs. 2676.00
	751 to 1500	Rs. 5382.00
(e) Contractor supplying water to Engines.	1501 to 3000	Rs. 10768.00
	3000 & over	Rs. 21508.00

SPECIAL CONDITIONS FOR

Letter of Credit as Mode of Payment in works tenders(Applicable for Advertise Value Rs. 10 Lakh or above)

(As per Railway Board's letter no. 2018/CE-I/CT/9 DATED 04.06.2018

- (i) For all the tenders having advertised cost of Rs 10 lakh or above, the contractor shall have the option to take payment from Railways through a letter of credit (LC) arrangement.
- (ii) This option of taking payment through LC arrangement has to be exercised in IREPS (Indian Railway Electronic Procurement System the e-application on which tenders are called by Railways) by the tenderer at the time of bidding itself, and the tenderer shall affirm having read over and agreed to the terms and conditions of the LC option.
- (iii) The option so exercised, shall be an integral part of the bidder's offer.
- (iv) The above option of taking payment through LC arrangement, once exercised by tenderer at the time of bidding, shall be final and no change shall be permitted, thereafter, during execution of contract.
- (v) In case tenderer opts for payment through LC, following shall be the procedure to deal release of payment through LC:
 - (a) The LC shall be a sight LC
 - (b) The contractor shall select his Advising/Negotiating bank for LC. The incidental cost towards issue of LC and its operation thereof shall be borne by the contractor.
 - (c) SBI, New Delhi, Main Branch will be the nodal branch for issue of LCs based on online requests received from Railway Accounts Units for tenders opened in financial year 2018-19. SBI branches where the respective Railway Accounts Office has its Account (local SBI branch) will be the issuance/reimbursing branch for LC issued under this arrangement. The Bank shall remain same for this tender till completion of contract. The incidental cost @0.15% per annum of LC value, towards issue of LC and operation thereof shall be borne by the contractor and shall be recovered from his bills.
 - (d) The LC shall be opened initially for duration of 180 to 365 days in consultation with contractor. The LC shall be extended time to time as per the progress of the contract, on the request of the contractor. The value of LC to be opened initially as well as extended thereafter shall be finalized by the engineer in consultation with the contractor on the basis of expected progress of work.
 - (e) The LC terms and conditions shall inter-alia indemnify and save harmless the Railway from and against all losses, claims and demands of every nature and description brought or recovered against the Railways by reason of any act or omission of the contractor, his

, agents or employees, in relation to the Letter of Credit (LC). All sums payable/borne by Railways on this account shall be considered as reasonable compensation and paid by contractor.

(F) The LC terms and conditions shall inter-alia provide that Railways will issue a Document of Authorization (format enclosed as Annexure 2) after passing the bill for completed work, to enable contractor to claim the authorized amount from their bank.

(g) The acceptable, agreed upon document for payments to be released under the LC shall be the Document of Authorization.

(h) The Document of Authorization shall be issued by Railway Accounts Office against each bill passed by Railways.

(i) On issuance of Document of Authorization, a copy of Document of Authorization shall be posted on IREPS for download by the contractor. A digitally signed copy of Document of Authorization shall also be sent by Railway Accounts Office to Railway's bank (Local SBI Branch).

(j) The contractor shall take print out of the Document of Authorization available on IREPS and present his claim to his bank (advising Bank) for necessary payments as per LC terms and conditions. The claim shall comprise of copy of Document of Authorization, Bill of Exchange and Bill.

(k) The payment against LC shall be subject to verification from Railway's Bank (Local SBI Branch).

(l) The contractor's bank (advising bank) shall submit the documents to the Railway's Bank (Local SBI Branch).

(m) The railway's bank (issuing bank) shall, after verifying the claim so received w.r.t. the digitally signed Document of Authorization received from Railway Accounts Office, release the payment to contractor's bank (advising bank) for crediting the same to contractor's account.

(n) Any number of bills can be dealt within one LC, provided the sum total of payments to contractor is within the amount for which LC has been opened.

(o) The LC shall be closed after the release of final payment including PVC amount, if any, to the contractor.

(p) The release of performance guarantee or security deposit shall be dealt directly by railway with the contractor i.e., not through LC.

Annexure-ii

LCDA No. (18 DIGIT IPAS GENERATED NO.)

Dated:_____

DOCUMENT OF AUTHORIZATION

Reference: (i) Works Contract/ Supply Contract No_Dated _____
(ii) Inland Letter of Credit No.____Dated _____

This document is issued against contract No____(FROM IREPS) -----
Dated-----for supply/work of:-----DESCRIPTION OF
GOODS /WORKFROM IREPS)-----

The beneficiary of the aforementioned Letter of Credit M/sNAME
AND
VENDOR

CODE) ... (Vendor Code as per IRPES) is entitled to receive payment.
aggregating INR

....\$\$\$.....(FROM ABSTRACT OF BIIL PASSED) out of a total LC amount of
INR ...

(FROM MASTER TABLE OF LC OPENEDagainst the first/second"
commercial Invoice No.(FROM IPAS) Dated_FROM IPAS ____
for INR (FROM IPAS)____raised against the above contract from State
Bank of India__(branch – FROM LC MASTER TABLE)____on the strength
of this Certificate .

The details or payments already made to the beneficiary under this Letter
or Creditare as follows : :

S.NO.	INVOIC ENO.	INVOIC EDATE	INVOICE AMOUNT (INR)	LCDA NO	LCDA DATE	AMOUN T PAID (INR)
Total Paid						

THIS PAYMENT : _____\$\$\$_____

LC BALANCE AFTER THIS PAYMENT : _____

(Signature of authorised Railway
authority) Name
Designation
Official Seal

Request letter from Executive branch to Accounts Office for opening of LC

Office of-----Railway

No. _____

Dated _____

The PFA/ Sr.DFM/ Dy.
FA HQ/Division/
Workshop/ Cost

Sub: Opening of LC

Ref: Supply Order/ Contract Agreement No .

It is requested to open a sight LC against the above referred Order/
Agreement in favour of __. The details of beneficiary are as under:

- (i) Name of Contractor/Supplier
- (ii) Vendor Code
- (iii) Address
- (iv) Tender No.
- (v) Contract Agreement No.
- (vi) Description of Goods/ Service
- (vii) Value of Contract
- (viii) Stages of payment
- (ix) Expected payment within 6 months (LC Amount)
- (x) Beneficiary bank details:
 - a) Bank name
 - b) Address
 - c) Account No.
 - d) IFSC code

- (xi) Validity/Period for which LC is to be opened

It is certified that the supplier/ contractor has exercised the option of taking payment due against the tender, through LC arrangement in IREPS portal at the time of bidding itself and the option has been flagged in the IREPS. This has the approval of

_____.

((Signature)

Name: _____

Designation: _____

(Official Seal)

End of the Tender Document