

South Central Railway



प्रमुख मुख्य सिग्नल एवं दूरसंचार इंजीनियर कार्यालय
Office of the Principal Chief Signal & Telecom Engineer
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No. SCR-HQ0SNT(MISC)/2/2023 (e-319728)

Date: 27.06.2024

Policy Letter No. 04/2024

Sub: Policy Guidelines on Annual Maintenance Contract (AMC) of Electronic Interlocking (EI).

Ref: 1. SCR Policy Letter No. SG.191/8/2/SSI dated 24.10.2011.

2. SGDM & CVO/SC's Letter No. G.265/PC/2023/02/01775/M/N/HYB
dated 25.08.2023

1. Consequent to the observations made by Vigilance Organization in AMC of EIs adopted by divisions vide letter under Ref-2, a committee consisting of four SG/JAG officers had been nominated to standardize the conditions of AMC for Electronic Interlocking for adoption over South Central Railway. Approved standard conditions for AMC of EIs is enclosed herewith for adoption by all Divisions and Executing units.
2. In addition, following conditions on Warranty/ Maintenance period in works contracts and commencement of AMC shall be as follows:
 - 2.1 Uniform warranty period of 1 year and maintenance period of 1 year shall be ensured in all Tenders/Contracts of EIs which shall be reckoned from the date of phase-I commissioning.
 - 2.2 During the Warranty & Maintenance period of Electronic Interlocking, the maintenance as per the AMC conditions shall be carried out by the OEM/Contractor. After expiry of warranty period only, the AMC shall be started on payment basis.
3. AMC tenders not yet finalised and LoA issued until the date i.e., 27.06.2024 shall be as per these guidelines. No dispensation in this regard shall be admissible.
4. To build up the competency of SSE/JE/Tech in the EI maintenance, at least one EI in each SSE Section shall be maintained by the concerned SSE through inhouse resources. Availability of sufficient spares shall be ensured.

27/06/2024.

(जी.के. द्विवेदी / G.K. Dwivedy)

प्रमुख मुख्य सिग्नल व दूरसंचार इंजीनियर
Principal Chief Signal & Telecom Engineer

Encl: Standard conditions of AMC document (17 pages)

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South Central Railway

**Annual Maintenance
Contract**

for

**Electronic
Interlocking**

(2024)

Preface

Consequent to the anomalies in EI AMC adopted by all divisions and the observations made by Vigilance Organization, vide Order No. SCR-HQ0SNT(SGBC)/1/2020 (e-39134) dated 16.11.2023, a committee to standardize the conditions of AMC for electronic interlocking over South Central Railway has been nominated.

Based on several deliberations and recommendations incorporated from the various stakeholders, reports on standard conditions of AMC for electronic interlocking (EI) has been prepared and submitted herewith.

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I. Purpose:

This document prescribes the standard conditions of Annual Maintenance Contract for Electronic Interlocking to be adopted in South Central Railway. All units and divisions with the intention to float the Tender for Annual Maintenance Contract with OEM/Authorized third party agencies shall observe and follow the conditions without any deviation prescribed in this document.

This document prescribes the basic minimum standards which includes the checklists for preventive and breakdown maintenance, their schedules and spares/penalty/payment clauses. Any other desirable measures and conditions for enhanced efficiency in the system can be framed and incorporated in these rules in future.

This standard report shall be revised only by the Zonal Headquarters S&T branch with the approval of PCSTE. Any deviations of minor nature as required by the units & divisions shall be got approved by CSE/SC before proceeding further with the deviation, in absence of which, such deviation shall be null & void.

ANNUAL MAINTENANCE CONTRACT (AMC) conditions for Electronic Interlocking (EI)

II. General

1. Warranty:

As per policy guidelines of South Central Railway vide letter No. SG.191/8/2/SSI dated 24.10.2011, the Warranty period and Maintenance period of Electronic Interlocking systems shall be ensured by all Executing Agencies. AMC of EI will commence only after expiry of Warranty period and Maintenance period as per works tender.

2. Minimum Period of AMC:

AMC shall be entered for a minimum period of Four (04) years from the date of acceptance of the offer by the Firms. Schedule to be prepared at one rate for initial two (02) years and separate rates for 3rd and 4th years as given below:

S.No.	Item Description	Rate (Rs.)	No. of Quarters	Total cost
1	AMC charges per quarter for first two years.	Rs. X	8	Rs.
2	AMC charges per quarter for 3 rd year.	(Rs. X) plus 10%	4	Rs.
3	AMC charges per quarter for 4 th year.	(Rs. X) plus 15%	4	Rs.

3. Performance Guarantee Details:

The Contractor shall submit Performance Guarantee in the form as given in Clause 16(4)(b) of GCC 2022, Pat-II equivalent to 5% of the contract value for satisfactory performance of the maintenance contract.

4. The standard specification of RDSO as amended from time to time shall be binding in this contract in all matters.

III. Technical specification

A. Scope of AMC:

- i. This is a comprehensive AMC and covers maintenance & upkeep of Hardware, Software and peripheral equipment of Electronic Interlocking systems including VDUs for Operating console & Maintenance console, Operator PC, Maintenance PC, cards, modules/subsystems, DC-DC converters, network switches and communication equipment of EI by the OEM Engineers/Technicians and does not include signalling relays used in interface circuits (Except VCOR and other supplied as part of the EI system). These systems are to be maintained efficiently and effectively to avoid failures or

malfunctioning of the EI system as a whole etc.

- ii. The executive of Railway shall certify the condition of the EI equipment before it is handed over to the firm. The firm shall replace/repair VDUs for Operating console & Maintenance console, Operator PC, Maintenance PC, cards, modules/subsystems, DC-DC converters, network switches and communication equipment without any extra cost and it is covered under the purview of AMC. However, the repair/replacement of the equipments whose codal life is completed as mentioned in Railway Boards Letter No. 2022/ACII/2/1 dated 24.03.2022 or latest, are excluded.
- iii. The damages due to High voltage/ lightning are covered under AMC except damages occurred in case of unforeseen circumstances such as flood, earthquakes, sabotage, terrorist activity, fire etc. In such unforeseen cases of damages, the damaged cards, modules/ subsystem are to be sent by the firm to the repair center of OEM and based on quantum of damage the repairing cost will be paid by Railways separately on case-to-case basis on mutually agreed terms and conditions.
- iv. The agency undertaking the maintenance contract shall be either original equipment manufacturer of Electronic Interlocking or Authorized vendor / service provider for EI system, authorization certificate indicating the list of competent resources and responsibility from original equipment manufacturer (OEM) for servicing / maintaining the product to be obtained for maintenance and to be submitted along with Tender.
- v. The contractor shall replace certain components such as EPROM batteries, condensers etc., having limited life as part of preventive maintenance.
- vi. As a part of AMC work, the Service Engineer shall also check all the related items such as incoming power supply, cable distribution (Integrity of clean/dirty cables routes), Earthing and Surge Protection and identify the modifications if needed, to suit his equipment and report for corrective action.
- vii. No faulty card / module / equipment shall be allowed to remain in the system for a period more than 24 hrs. from the time of reporting the failure to the Service Engineer.
- viii. The contractor shall render normal services during odd hour failures, emergencies, Sundays and other Holidays including National Holidays or any other eventuality.
- ix. All instructions mentioned in the installation & operation manual should be followed for smooth operation of the equipment. In case of breakdowns the customer/User shall give preliminary information about the problem to enable the service engineer to carry with him the required components. If any damage to the equipment is occurred due to the usage of unapproved parts or negligence in handling of the equipment or abusing the system by subjecting the inputs/outputs beyond its tolerable limits, a penalty of actual cost of

damaged card/module or 10,000/- whichever is higher will be imposed.

- x. The Rate for AMC includes the cost of spares, travelling expenses and daily allowance etc. of the contractor's Engineers and staff. No Claim on this account will be entertained by Railways at any cost.
- xi. This AMC does not cover any modifications/alterations to the working system. However, if any minor alterations required for any inherent errors detected at a later stage after commissioning by OEM or his authorized representative, in either Executive or Application logics or interface wiring, it shall be covered as a part of AMC. In case of alterations carried out by Railway or OEM which results in in addition of the bits in same card file/ modification of hardware, it shall not vitiate AMC conditions.

B. Schedule of Activities:

- i. Monthly once EI is to be inspected and log book shall be maintained in relay room by open line staff.
- ii. Engineers from the OEM shall visit the site every month every station and do the preventive maintenance including cleaning, physical checking, parameters checking, recording, analysis of alarms, event logs of MT etc. and all other activities necessary for failure free, reliable and safe working.
- iii. AMC visit calendar for every station under scope shall be submitted by OEM within two weeks of receiving the LOA. 12 AMC visits per year shall be carried out and the frequency should not be less than 30 days and more than 45 days between two successive preventive maintenance checks.
- iv. Quarterly systems audit as per maintenance checklist regarding health & safety of the system is to be done by the Original Equipment Manufacturer (OEM) and to be submitted to Railway for necessary preventive action to be taken.
- v. Every visit (Preventive / Corrective maintenance call) of the equipment under AMC by the Company engineers shall be certified by the railway official and shall also be recorded in the log register maintained for this purpose.
- vi. All remedial maintenance of the equipment and its preventive maintenance required periodically shall be provided by the contractor.
- vii. For each major / minor failure, detailed analysis report should be submitted by authorized person of OEM duly explaining the reason for failure, corrective action taken and action plan to avoid such failures in future. This report should be submitted within 5 days of such failure attention.
- viii. As being of long-term understanding with the EI OEM firm regarding providing service, maintainability, availability, technological up gradation, working with Railway, annual performance report shall be submitted to PCSTE/SCR regarding performance of the EI system as well as service for future course of action required, if any.

- ix. Earth provided for EI/System at each station, value of earth resistance should be measured quarterly by firm's representative along with railway representative and it should be less than 1 (one) ohms.

C. Deployment of Competent Resources:

- i. The Contractor shall depute minimum one qualified authorized engineer certified by the OEM to carry out the maintenance at section on regular basis as well as for attending EI failures/unusals. Authorized Service Engineers shall have minimum education qualification of diploma/ bachelor of science and certification of competency for working in Electronic Interlocking of Indian Railways. Qualified engineers with man and materials and communication facility should be available at location to meet out any emergency. He shall report to JE/SSE of the stations.
- ii. The OEM shall issue laminated photo identity cards to the Service Engineer/ Technicians/ Maintenance staff who will be authorized to undertake maintenance work in Railway premises and cost of the Identity Card shall be borne by the OEM. Notwithstanding with the possession of ID card, Service Engineers/ Technicians/ Maintenance staff shall enter into Relay Room with Authorized Railway personnel only.
- iii. The Service personnel employed by contractor should be competent to handle the systems. They should be exclusive for the purpose of Annual Maintenance contract and should not be utilized for any other purpose such as installation/maintenance of other equipment in any locations.
- iv. The message, in case of failure, shall be given by the Railway representative to the Service engineer on phone/fax or SMS or any other means. There shall be no limit on the break down calls. The contractor shall maintain a round the clock helpline in the form of Call Centre/website so that calls can be logged. The contractor's Engineer/Supervisor shall be available on telephone round the clock for passing on the information by Railways in case of failure.
- v. The nearest field service location of the firm/contractor along with telephone number, FAX, mobile numbers, address of service engineers, drivers of mobile vans etc. and other information shall be advised to the Divisional Signal Fault Control room as well as Railway officials to lodge fault complaint. Any change in supplied details shall be promptly updated.
- vi. The firm's representative will attend the site with spares as advised in the complaint and the defective parts of EI will be replaced at site by the spare to restore the failure. The defective parts will be taken by the firm's representative for repair.
- vii. If the Service Engineer feels that the failure is due to any other reason which is beyond his purviews, the same should be reasonably supported by reports/ measurements/ readings etc. Railway's decision in this regard shall be final after analysing the problem.

- viii. The contractor shall impart training to the Railways maintenance personnel about basic maintenance and first line offault rectification. In case Railway needs any guidance/training in modifying/enhancing the capacity of the system/minor shifting of the system, the contractor shall assist in completing this work and testing it at site. Contractor shall also prepare and make available maintenance and fault rectification manual at all sites.

D. Requirements of UP Time & Down Time of the systems under AMC:

- a) **Minor Failure:** It means failure where EI system working is not affected but failure needs to be attended to ensure the reliability / redundancy of the working system. It is a redundant system/module failure which doesn't affect traffic.
- b) **Major Failure:** Major failure means where EI system working is totally affected. It is a critical failure leading to traffic disruption/complete non-operation of panel or leads to complete system shut down.
- c) **UP Time:**
 - i. The contractor must ensure UP time of at least 99.9% for entire system being offered under this AMC.
 - ii. The UP time shall be calculated on monthly basis.
- d) **DOWN Time:**
 - i. Down time is defined as duration for which system as a whole or any part is not available for the purpose it is installed.
 - ii. Non-availability of standby shall not be counted for Down time.
 - iii. The Down time shall be reckoned from the time the contractor's representative has been informed by means of Telephone, SMS, FAX, or any other method at the address as specified by Contractor within geographical jurisdiction of Railway.
- e) Every month summary of Up time and Downtime of each system shall be jointly signed along with the Railway representative. At the end of every quarter the MTBF and MTTR are to be calculated jointly by the firms representative and the Railway's representative.
- f) Working Hours for the system shall be considered as **24 Hours per day**.

E. Preventive Maintenance checks:

- i. The following preventive maintenance checks are to be carried out at the specified periodicity to keep the equipments in good working condition:
- ii. The general cleaning of the chassis should be done using blower to remove dust from intake and exhaust points of the chassis.
- iii. The general condition of PCBs should be checked. The components should be checked for excessive heating. The proper connectivity of heat sink and

its effectiveness should also be checked. The electrical contacts should be cleaned with a cloth dampened in carbon tetra-chloride, wherever required and prescribed.

- iv. The loose electrical connections should be identified and attended. The condition of wiring to be checked to identify peeled insulation and general deterioration. If any wiring changes are to be done, then proper lugs should be used.
- v. Repair or replacement of any component found defective or not working up to the satisfaction or over aged.
- vi. Recording of status of indications on the cards, alarms and fuses indications, etc. in the maintenance should be carried out by OEM engineer during periodic visits.

F. Breakdown Maintenance:

- i. Breakdown Maintenance of the complete System including software for the problems experience and as reported by Railways including defects, immediate replacement of faulty cards of any type, are to be carried out by the contractor.
- ii. On experiencing a problem in the equipment, the Railways shall inform about the problem to the contractor through telephone/FAX/Post/e-mail or any other means. The contractor shall register the complaint and confirm it by issuance of suitable case number.
- iii. The breakdown calls shall be attended immediately with the prescribed limit even beyond the office hours, Sundays and other Holidays including National Holidays. In the event of strike or lockout or any other labour upheaval in the firm, skeleton service shall be made available and ensured by the firm to attend to urgent faults.
- iv. The Contractor shall attend to the breakdown calls at the earliest and within 24 hours in case of minor faults and 04 hours in case of major breakdown/total system shutdown. If the system requires major repairs the contractor shall provide a standby equipment within 24 hours at his (contractors) cost to make the system functional.
- v. After attending each break down, the joint break down report shall be prepared by contractor or his authorized Engineer/representative and Railways Representative not below the rank of JE (Sig). A copy of this report shall be submitted to DSTE/ADSTE or any other officer so nominated by Sr.DSTE.

G. Spares:

- i. While inviting the tender for AMC, Railway shall indicate the list of available spares of EI in the tender document. The tenderer shall submit the details of additional spares that are required for maintaining the UP time of the system.

- ii. Accordingly, the OEM shall maintain sufficient stock of spares e.g., Cards, Modules, Power Supply Equipments, Isolators, DC-DC converters, Compilers, Indoor Wires & Cables, Fuses, Terminals, Couplers, OFC Patch Cords, Surge Arrestors, Network Switches, Communication Equipment etc. or any other hardware / software which are required to restore the systems from failures/breakdown mode within the prescribed time.
- iii. Spares operated under AMC shall be kept under the custody of concerned SSE at a central/viable location. If spares are handed over to OEM engineer on challan, they shall be kept at safe custody at OEM's office. The data of these spares along with year of manufacturing and serial nos. shall be maintained. The spares shall be duly inspected by RDSO and quantity shall be as follows:

Sl. No.	Item	Quantity
1.	Any card/sub module/modems	10% of population of EI under AMC (or minimum of 2 nos.)
2.	Motherboard/card bin/rack/outer shell	10% of population or 1 for every 5 stations
3.	Fuses of all types used SPDs	20% of its population or minimum 50 nos. to be kept at every station
4.	Internal patch cords/cables/connectors	5 nos. of each type used

Population indicates the no. of EIs under AMC.

* Non-compliance of the above should invite penalty imposition on OEM.

- iv. Troubleshoot manuals/boards/safety gear like ESD wrist bands to be prescribed by OEM and can be provided at minimal additional cost if required. But their availability and awareness to staff is key.
- v. During the AMC period if any cards/ modules etc. as mentioned above becomes defective for which RDSO specification is available, the OEM shall replace that with RDSO inspected modules only. To fulfil this, the OEM shall maintain a buffer stock of spares inspected and passed by RDSO. These spares shall preferably be distributed at each station to minimize down time.
- vi. All the tools and testing instruments including laptops required for checking, testing and attending to routine maintenance and breakdowns shall be arranged by the contractor.
- vii. The OEM shall be responsible for maintenance of the health of the Spares supplied by Railway. During the AMC period, the OEM shall ensure that all Railway supplied spares are in good fettle.
- viii. The Service Engineer/ Technicians/ Maintenance staff shall carry Railway materials only with Challan or authorized documents.

- ix. After expiry of AMC period, the contractor has to return the spares provided by Railway to the concerned SSE in good condition.

H. Penalty: AMC visit

- A.** Once in a month EI System to be maintained if OEM fails to carry out AMC the particular Schedule of visit of the monthly payment shall not be paid in addition the penalty Rs.500/- (Rupees Five Hundred only) per week upto 1st week and subsequently Rs. 1000/- (Rupees one thousand only) per week after 1st week to be imposed for not carrying out AMC schedule for that month. If AMC visit has not been carried out for two consecutive months, no payment will be made for the entire quarter.
- B. Minor failure:** Minor failure to be attended by OEM service Engineer within twenty-four (24) hrs. of receipt of failure information.
- a. If not attended within twenty-four (24) hrs., a penalty of Rs.500/- (Rupees Five Hundred only) for every 24 hours shall be imposed till restoration of the failure.
- b. Non-responding of service engineers to the phone calls of railway officials during minor failures within 06 hours will attract a penalty of Rs. 2000/- (Rupees Two thousand only) per incident.
- C. Major failure:** Major failure to be attended within four (04) hrs. on receipt of failure information. If not attended, every hour Rs.2,000/- (Rupees Two thousand only) will be imposed (from 5th hour onwards) as penalty till restoration of the failure.
- No response by OEM Engineer within 01 hour of major failure will be treated as a serious lapse of AMC Contract condition and will attract a penalty of Rs.10,000/- (Rupees Ten thousand only) per hour until the response/attendance.
- D.** Spares specified in the list mentioned in the booklet to be maintained at respective stations. If any spare equipment not available same should be recouped within one week. from the day of the notice by railway Engineer. If not recouped within one week, penalty of Rs.2000/- (Rupees Two thousand only) per day to be imposed as penalty till recoupment of spare equipments/modules/components.
- E.** Non-submission of failure report for each major / minor failure by authorized person of OEM duly explaining the reason for failure, corrective action taken and action plan to avoid such failures in future within 5 days of such failure attention, failing penalty of Rs.1000/- (Rupees One thousand only) per occasion shall be imposed.

The penalty clauses are summarized below:

S. No.	Type of Default/Deficiencies in Service	Classification	Penalty for delayed attention
1	Missing/Delayed AMC visit	OEM Engineer not carried out AMC visit of a station for a month.	No payment for the specific AMC period and a penalty of Rs.500/- for upto 1 st week, Rs. 1000/- upto 2 nd week. If two consecutive monthly visits not done, no payment for the quarter.
2	Minor Failure	A redundant system/module failure. Any failure which doesn't affect traffic/doesn't lead to complete shutdown of system/leads to complete non-operation of panel by SM.	To be restored/attended in 24 hours. Non-compliance of timeline leads to a penalty of Rs.500/- every hour. Non-responding of service engineers to the phone calls of railway officials within 06 hours will attract a penalty of Rs. 2000/- per incident.
3	Major Failure	A critical failure leading to traffic disruption/ complete panel in operation or leads to complete system shut down.	To be restored/attended in 04 hours. Non-compliance of timeline leads to a penalty of Rs.2000/- every hour. Non attending of the major failure by OEM Engineer will attract a

S. No.	Type of Default/Deficiencies in Service	Classification	Penalty for delayed attention
			penalty of Rs. 10000/- per hour.
4	Non maintenance of spares	Spares specified in the list mentioned in the booklet to be maintained at respective stations.	If specified spares could not be recouped within 1 week, penalty of Rs.2000/- per day. If spare cards are provided by Railway, defective cards shall be repaired / replaced within 1 week. Beyond this period, penalty of Rs.2000/- per day.
5	Non submission of failure report within 5 days of failure.	For each major / minor failure, OEM Engineer should submit detailed analysis report.	Penalty of Rs.1000/- per occasion.

I. Payments:

- i. Payment for one fourth of the total Annual Maintenance Contract value for one year shall be made after successful completion of the work for each quarter duly certified by the authorized representative of the Railway after deducting the penalty as accrued during the period and statutory deductions.
- ii. Payment will be made on verification of record. The record of monthly visit, failure and servicing done shall be kept in triplicate with the contractor and record at every station.
- iii. Payment shall be made on presentation of the following documents:
 - a. Certificate of satisfactory Maintenance of each quarter preceding the date of submission of Invoice shall be given by the authorized Railway representative not below the rank of JE/SSE.
 - b. Reports of monthly preventive maintenance and breakdown repairs including certification of installation according to standards of OEM and specified in the scope of AMC.
 - c. Jointly signed Summary report of UP and Down time of the system.
 - d. Invoice in triplicate in showing the rate and the period for which AMC charges claimed.

J. Records:

- i. The OEM shall print and supply AMC register for recording the work done either on call or preventive Maintenance and fault rectification at each station in the following formats (a) & (b). Signature of the Railway Representative shall also be taken.

(a) PROFORMA FOR QUATERLY AUDIT (Para B-iv):

S. No.	Date / Time of Arrival	Date / Time of Departure	Description of Maintenance Activity Done	Signature of OEM Engineer / Technician	Signature of Railways Representative (SSE / JE / Technician)

(b) PROFORMA FOR RECORD FOR FAULT RECTIFICATION/BREAKDOWN ATTENDANCE:

S. No.	Date / Time of Information Received	Date / Time of Arrival	Date / Time of Rectification	Fault Reported	Action Taken (*)	Follow up Action to be taken	Remarks

(*) Please record Sl. No. of Cards attended/ replaced.

- ii. The OEM shall also maintain History Sheet of each equipment/ installation indicating the following details. The detailed format shall be approved by Railway Engineer.

- **Name of Station:**
- **Date of Installation:**
- **Serial Number of Equipment:**
- **Number of Equipment:**
- **Number of Racks!**
- **Number of Systems:**
- **CRC:**
- **Check Sum:**
- **Number of VCOR Relays & Sl. No.:**

- **CARDS:**
 - a. Description:
 - b. Serial No.:
 - c. System:
 - d. Slot No.
 - e. Date of replacement & Sl. No.
- **DC-DC Converters:**
 - a. Rack No.:
 - b. Serial Number:
 - c. Rating:
 - d. Date of replacement & Sl. No.:
- **Surge Protection Device (SPD)**
 - a. Rack No.:
 - b. Class:
 - c. Date of replacement & Sl. No.
- **Fuses:**
 - a. Rack No.:
 - b. Serial No.:
 - c. Description of circuit:
 - d. Type of fuse:
 - e. Rating:
- **Converters:**
 - a. Rack No.
 - b. Type:
 - c. Last date of replacement:
- **Isolators:**
 - a. Serial Number:
 - b. Location:
 - c. Date of last replacement:
- **Details of Operating VDU:**
 - a. Monitor.
 - b. PC:

- **Details of Maintenance VDU:**
 - a. Monitor
 - b. PC:
- **Various Male/female connectors, OFC Patch cords**

Whenever cards / modules etc. are replaced / repaired the same shall be updated in the History Sheet.

- iii. All tests & checks, thorough servicing, and maintenance of equipments which have been carried out shall be entered against each Machine/Equipment in the Asset Register. Signature of the Railway's Representative/Supervisor during the check should be obtained by the Contractor concerned.
- iv. The registers/booklets supplied by OEM for maintenance activity shall be in tandem with the items prescribed in Electronic Interlocking Maintenance schedule codes E1 to E4 of IRSEM Appendix-I.

K. Terms & conditions:

- i. The price and rates in respect of the AMC & repairing cost are inclusive of all taxes and other levies, etc and shall remain firm under all circumstances for a full period of Four (04) years from the date of entering into the AMC and shall not change on account of variation of Taxes/Statutory dues/exchanges rates etc.
- ii. After the LOA is issued, service shall start immediately. Minimum critical spares or any other hardware / software which are required to restore the systems from failures/breakdown mode within the prescribed time should be supplied within 15 days. Full quantity of spares as mentioned in Tender offer shall be supplied within 45 days from the date of issue of LOA. If 45 days' time limit is defaulted, penalty will be imposed per week or part thereof at the rate of 3% of cost of AMC per year till the material is supplied.
- iii. Railway can terminate the AMC at any time depending on overall performance of services rendered by the firm during the period of contract at its own discretion and can also negotiate in case of renewal of Annual Maintenance Contract.
- iv. In case of non-compliance with the maintenance obligations for a period of 1 quarter during the period of AMC the value of Bank Guarantee shall be encashed by Railway by giving One week Notice to the Tenderer/Contractor.

END