भारतसरकार GOVERNMENT OF INDIA
रेलमंत्रालय MINISTRY OF RAILWAYS
(रेलवेबोर्ड RAILWAY BOARD)

No.2016/Elect(TRS)/225/Misc

New Delhi, Dated: 05.07.2019

Managing Director,

CRIS,
Chanakyapuri,
New Delhi

Director General (Elect)

RDSO
Manak Nagar
LUCKNOW

Sub: Minutes of meeting of Real-time Train information System (RTIS) held in Railway Board on 28.06.2019

Ref: Board letter No. 2016/Elect (TRS)/225/Misc dated 24.06.2019.

Minutes of meeting held in Railway Board on 28.06.2019 to discuss the issues related with implementation of Real-time Train Information System (RTIS) is enclosed herewith for information and necessary action.

DA: As above

(A.K.Goswami)
Dir. Elect.Engg. (RS)
Railway Board
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Copy to:

Pr. Chief Electrical Engineer
All Zonal Railways

} For information and necessary action please.

Minutes of meeting at Railway Board on 28/06/2019 to discuss the issues related with implementation of Real- time Train Information System (RTIS)

Members Present:

Railway Board
(S/Shri)
Kishore Kumar, EDEE/RS
A.K.Goswami, DEE/RS

RDSO
(S/Shri)
O.P.Kesari, PED/SE
Arvind Pandey, DDSE/Sys

Railways
(S/Shri)
Naveen Kumar, CELE/ER
Mohit Chandra, CELE/NR
D.K. Yadav, Sr.DEE/ELS/HWH/ER
P.K. Pachouri, Sr.DEE/ELS/TKD/WCR
Amit Gupta, Sr.DEE/ELS/AQ/CR
Vinay Kumar, Sr.DEE/OP/BRC/WR
Sandip Srivastava, Sr.DEE/OP/DLI/NR
Manish Pratap Singh, Sr.DEE/ELS/GZB/NR
Jeet Ram, Sr.DEE/ELS/SRC/SER
Naga Srinivasu Rongala, Sr.DEE/ELS/AJJ/SR

CRIS
(S/Shri)
Manoj Krishna Akhouri, Director(Operations)
Raman Bansal, CPE/CN
Ashish Arora,SPE
Anil Beelwal, SPE
Swapna Warikoo, SPE/CN

Bharat Electronics Limited.(BEL)/Panchkula
S/Shri)
Salil Dey,AGM
Mohan Lal,DGM
Gurmeet Singh,DGM

A meeting was convened at Railway Board on 28.06.2019 to discuss the issues relating to design, installation, operation, maintenance of RTIS. The summary of discussions is as under.

1. CRIS made a presentation on RTIS covering its installation & functionality. As on 27.06.2019, 619 units of RTIS have been fitted on locomotives & out of these 586 units have been integrated with Control Office Application (COA).

2. In phase-1, 2700 units of RTIS are to be installed. The programme for installation/commissioning of 2700 RTIS units have been given to M/s BEL by CRIS.

3. Discussions held during meeting & action to be taken by CRIS, RDSO and Railways are as under:

   3.1 At present, the display is going into sleep mode only after 1 minute & sometime glare of display distracts the attention of ALP. It was suggested that the display unit should be 'ON' only when it is required by LP/ALP. For this purpose, a Push Button may be provided to make display ON/OFF as & when required.

   3.2 The Power supply for Indoor unit (IRN) has been tapped from wire no. 2094.The power to IRN remains in service even after loco is out of service & unnecessarily causing draining of loco battery. To address the problem, it was suggested by Railways that power supply to RTIS IRN may be tapped from wire no. 2095 instead of 2094 so that

battery supply is available to RTIS only when loco is charged. Alternatively, if power supply is to be tapped from wire no. 2094, only GPS module shall be switched ON to reduce the power consumption. RDSO may collect feedback from Railways and advice CRIS accordingly by 31.07.2019.

3.3 In conventional loco, the supply to RTIS has been tapped from wire no. 002(+) & 009(-) through MCB. In case, for any reason, the MCB malfunctions, the Additional CCBA will blow leading to failure of complete loco. To avoid this, Railways suggested to have RTIS fuse of suitable rating before MCB.

3.4 CRIS informed that the loco devices being installed in Phase-1 have been procured with 01 year warranty. The warranty period shall begin on the date of commissioning of end to end RTIS system. As per the existing contract, the RTIS system is targeted to be commissioned by end of Dec 2019. It was discussed that CRIS should take necessary steps at appropriate stage for post warranty AMC of loco devices. In future all loco devices will be procured with 3-5 year on-site warranty.

3.5 It was suggested that CRIS shall explore possibility of providing redundant Outdoor unit to enhance the reliability of system.

3.6 Some concerns related to workmanship during installation of loco devices were raised by loco sheds. M/s BEL needs to take care of these issues, some of which are listed below:

- Some instances of damage to existing cables in the locomotive have been observed. Due care should be taken by BEL's installation team for avoiding such instances.
- Earthing related issues have also been observed. This may be due to poor workmanship or poor quality of power cable. BEL needs to address these issues. BEL's installation team should carry out appropriate checks during installation in coordination with loco sheds to avoid such issues.
- Sharp bends of cables need to be avoided during installation. Proper dressing of cables should be done.
- Cable routing between Outdoor unit & Indoor unit of RTIS shall be done properly. It was discussed that cables / connectors of indoor unit of RTIS loco device are exposed. Arrangement for covering these cables/connectors should be explored. This will help in reducing damage to cables & connectors of RTIS device.
- Cable lay out of RTIS shall be done in such a way that it should not obstruct the normal working space.
- Safety procedures as laid down by loco sheds must be followed for working on loco roof top.

3.7 The connection at USB port at display unit of IRN shall be secured/locked properly to avoid loosening of connection owing to vibrations/inadvertent pulling. CRIS informed

that locking arrangement is being provided. CRIS was advised to implement the same in the existing units already in service.

3.8 Presently Indoor unit (IRN) consisting of display unit and Power management unit with ICM have been provided on driver desk at APL side. Railways suggested that CRIS may explore the possibility of splitting the indoor unit of RTIS in the 1st phase of installation to address various issues which are arising due to integrated IRN (Display, Power management unit & ICM).

3.9 CRIS brought out that in Phase-2, integrated IRN (Display, Power management unit & ICM) will be spitted into two parts i.e. Display & PMU-Power Management Unit/ICM-Integrated Communication Module separately. Railways suggested that display unit may be provided at some suitable location preferable at the back of driver cab in consultation with RDSO with power supply inside the machine room. CRIS may submit layout and installation details for Phase-2 to RDSO well in advance and RDSO may examine it and accord clearance within 15 days.

3.10 It is desirable that RTIS device with modified layout may be provided in few locos initially and feedback of running staff may be monitored by RDSO so that changes, if any may be advised to CRIS by RDSO prior to roll out in all units during Phase-2.

3.11 Since adequate space is not available on Loco cabin desk in non-crew friendly WAP-4 & WAG-7 locomotives, these locomotives (non-crew friendly WAP-4 and WAG-7) will be covered in RTIS phase-2 implementation.

3.12 BEL's representatives working in loco sheds or attending trip sheds for installation/maintenance of devices should be authorized by BEL. BEL's representatives should submit/present authorization letter, copy of Id proof to loco sheds /trip sheds before starting the work.

3.13 It was informed that facility for OHE isolation is available in trip sheds also. If required, replacement of Outdoor unit can be done in trip shed also by seeking the loco in isolation zone.

3.14 The sheds should be provided with user ID & Password for monitoring the functioning of their locos.

3.15 Training shall be imparted to running & maintenance staff by CRIS. It was decided that CRIS will submit maintenance and operating instructions to RDSO and RDSO will examine the same the issue in the form of Technical Circular/Special Maintenance Instructions. The Preventive Maintenance Checks procedure will also be included in the training programs carried out by Railways for Crew/maintenance staff.

3.16 CRIS highlighted that Average availability/allocation of locomotives in loco sheds for RTIS device installation is less than 01 locomotive per shed per day. Loco sheds should allocate locomotives at higher rate to expedite the work.

3.17 TLCs should feed loco number attached to train in ICMS, and data entry of train number will subsequently be taken over by LPs in RTIS device while starting the journey.

3.18 Provisioning of compatible ports should be explored for interfacing of RTIS device with the locomotive VCU for facilitating forwarding of loco maintenance logs/data to a central server using RTIS device.

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