भारत सरकार **Government of India**

रेल मंत्रालय **Ministry of Railways**

रेलवे बोर्ड **Railway Board**

2021/M(C)/137/5ptll

(e-Office- 3360904)
New Delhi, Dated 04.07.2024

Managing Director
CRIS

Sub: Provision of CCTV cameras in IR coaches and locos
Ref: (i) CRIS letter no. CRIS/HQ/PRJT/37/2024-CTCH Dated 15.03.2024
      (ii) CRIS letter no. CRIS/HQ/PRJT/37/2024-CTCH Dated 01.06.2024
      (iii) Minutes of Meeting, dated 24.06.2024
      (iv) Minutes of Meeting, dated 02.07.2024
      (v) CRIS letter No. MD/CRIS/Misc./2023 Dated 24.06.2024

I.   CRIS vide letter under reference (i) proposed changes to RDSO specifications related to FRS application. These modifications were deliberated in the meetings held in Railway Board on 14.06.2024 and 28.06.2024.

II.   The following modifications proposed by CRIS have been agreed:

SI No.	Clause No.	Updated Clause
1	4.7.1	The Face Recognition Algorithm vendor should have participated and established in the Face Recognition Algorithm Evaluation conducted by NIST (National Institute of Standards and Technology, U.S. Department of Commerce) or from any Government Test Labs authorised. The benchmark / latest performance FRVT test results of the current calendar year with respect to the closing date of tender (original/extended) or the last 1 preceding year, the performance efficiency of the algorithm shall be within the top 25 ranked algorithms of the FRVT (1:N) test results with FNIR (N=1.6M, T=O, Rank=1)
2	4.7.6	The system shall have the capability to build partial faces and enhancement of quality of images before enrolment (through inbuilt or other third-party tools).

3	4.7.10.4	System shall be able to detect the faces across the multiple CCTV video sources for online (real-time feed) and offline (recorded feeds) modes regardless of following conditions: a. Changes in Facial expression b. Changes in facial hair or hairstyle c. Changes by moderate aging (up to 15 years) d. Partially hidden faces or occluded faces like wearing dark glasses mask etc. e. Changes in lighting conditions
4	4.7.10.7	Automated as well as Manual Data Backup and archiving functionality (through FR application or a backup solution integral part of overall CVMS solution)
5	4.7.10.(iii)	Accuracy with mask: Bidder is expected to provide face recognition solution in such a way that the accuracy of provided alerts will be of at least 70% accuracy. Accuracy without mask: Bidder is expected to provide face recognition solution in such a way that the accuracy of provided alerts will be of at least 80% accuracy.

III.   Further, POC/ User trials will be conducted by purchaser with user dte. as per clause mentioned in RDSO specification to determine accuracy percentages for FRS application.

IV.   In this regard the following Mechanical and Security dte. Officers are nominated in the committee to conduct POC:

a. Director/Carriage/RDSO
b. Concerned CDO/ Sr. CDO/ Sr DME of C&W Depot where POC is planned as per letter under ref (v).
c. Sh P. Raj Mohan (Sr.SC/DBSI/RPF)
d. Sh Md. Haneef (DD/CCB/RPF)

This has the approval of Board (MTRS) and DG/RPF.

For further necessary actions, please.

(शैलेन्द्र सिंह)
प्र.कार्य. निदेशक/यांत्रिकइंजी./ई.एन.एच.एमएवंप्रोजेक्ट
रेलवेबोर्ड

C/ -IG/HQ/RPF/RB for necessary actions and information please.
   -Sr. PPO to MTRS for kind information of MTRS please.
   -Sr. PPS to DG/RPF for kind information of DG/RPF please.