



No. EL/4.2.17

Date: 30.08.2019

1. M/s C-DAC, P.B. No. 6520, Vellayambalam, Thiruvananthapuram - 695033, Kerala.
2. M/s ABB Limited, Nelamangala Taluk, Bangalore - 562 123
3. M/s. BHEL, EDN, PB.No.2606, Mysore Road, Bangalore-560 026
4. M/s. BTIPL, ERDA Road, Maneja, Vadodara-390 013
5. M/s. CGL, Plot No. 9, New Industrial Area, Mandideep - 462 046.
6. M/s Medha Servo Drives Pvt. Ltd., Nacharam, Hyderabad - 500076
7. M/s Secheron Hasler (INDIA) Pvt. Ltd. 310, 3<sup>rd</sup> floor, global foyer, sector 43, Golf course Road, Gurgaon 122002, Haryana.
8. M/s Klovertel Private. Ltd. 24 -30 Okhla Industrial Estate Phase III, 110020, New Delhi, INDIA

Sub: Meeting at Railway Board on 27.08.2019 on Operation of Trains with Electric Locos in Push-Pull Mode.

Kindly find enclosed herewith a copy of Minutes of the Meeting held at Railway Board, New Delhi on 27.08.2019 on Operation of Trains with Electric Locos in Push-Pull Mode for kind information and necessary action please.

(Suresh Kumar)

DSE/TPS

For Director General (Elect.)

Encl: As above.

Copy to:

1. Secretary (Electrical Engg./RS), Railway Board, Rail Bhawan, New Delhi-110 001.  
(Kind attn.: Shri A.K. Goswami, DEE/RS): For kind information.
2. Principal Chief Electrical Engineer, Chittaranjan Locomotive Works, Chittaranjan - 713331 (WB): For kind information.
3. Principal Chief Electrical Engineer, Central Railway, HQs Office, 2nd floor, Parcel Office Bldg., Mumbai-400 001: For kind information.
4. Principal Chief Electrical Engineer, West Central Railway, HQs Office, Opp. Indira Market, Jabalpur-482 001
5. Principal Chief Electrical Engineer, South Central Railway, HQs Office, Rail Nilayam, Secunderabad-500 071.
6. Principal Chief Electrical Engineer, Western Railway, Churchgate, Mumbai - 4000 020
7. Sr. Divisional Electrical Engineer (TRS), Electric Loco Shed,
  - Central Railway, Ajni, Nagpur-440008
  - South Central Railway, Lallaguda, Secunderabad-500 017.
  - Western Central Railway, Tughlakabad, New Delhi-110 044.
  - Western Railway, Vadodara-390 002.

(Suresh Kumar)

DSE/TPS

For Director General (Elect.)

Encl: As above.

**Meeting at Railway Board on 27.07.2019 Operation of Trains with  
Electric Locos in Push-Pull Mode**

**Members Present:**

<b>Railway Board</b>	Shri Kishore Kumar, EDEE/RS " A K Goswami, DEE/RS
<b>RDSO</b>	" Suresh Kumar, DSE/TPS
<b>CLW</b>	" Pankaj Kumar, ADE/D&D/CLW
<b>M/s ABB</b>	" Babu Shanmugam, Manager Control Engineer
<b>M/s BTIL</b>	" Bhimsen Rajput, Engineer IR Project
<b>M/s Medha</b>	" Dinakar Reddy - Sr. Manager Marketing " Venu Sr. Engineer marketing " A. N. Venkateswar Rao, Dy Manager
<b>M/s BHEL</b>	" Sushil Kumar Sr. DGM/TBSG/New Delhi " Aditya Kumar Dy Manager/TBSG/New Delhi
<b>M/s HaslerRail</b>	" Sandeep Kumar, Manager - Projects
<b>M/s Klovertel</b>	" Sunil Kothiyal, Field Application engineer " Kalpesh Kansgara, Technical Sales Manager

1. As per the instruction of EDEE/RS, Railway Board a meeting was called for discussion on provision of Door Opening and Closing System (DOCS) and Passenger Information System (PIS) in Push-Pull arrangement. Issue of interoperability of WTB gateway was also discussed.
2. It was informed that the firms have still not submitted details on Door Opening and Closing System (DOCS) and Passenger Information System (PIS) being used world-Wide as discussed in meeting on 17.07.2019. It is once again requested that the details may be submitted by 15.09.2019.
3. Loco application software modification for Push-Pull operation.
  - a. Locos with MICAS VCU and MICAS MU gateway are presently operating in Push-Pull mode. Propulsion manufactures have been informed to adopt the software logic implemented in Push-Pull compliant MICAS locos.
  - b. M/s Medha is still not ready with application software. Necessary details have already been provided. Firm has indicated that their software will be ready by 05.09.2019. They will test the software at ELS/LGD or ELS/BRC by 10.05.19.
  - c. C-DAC modified software has been handed over to ELS/TKD. Trial shall be completed by 05.09.2019.
  - d. M/s BHEL is still not ready with the software. Hotel Load operation logic to be corrected and self-hold time to be increased to 100 Minutes. M/s BHEL shall complete the trials after software modification at ELS/AQ by 05.09.2019.
4. Central Railway has informed that while testing Push-Pull compliant Locomotives equipped with TCN-VCU of M/s BTIPL make with 16 coach modified rake, the communication between locomotives could not be established. This needs to be thoroughly investigated by proper test protocol as UIC says that there should not be any problem up to a distance of 840 metres.

*Lurey*  
30/8/19

5. In order to establish the WTB communication with two locomotives with rake in between all the stakeholders namely M/S BTIPL, Medha, CDAC, HaslerRail and Duagon shall submit their test protocol by 05.09.2019. They shall also submit list of the test equipments and instrumentation required for testing and the same shall be provided by them during testing.
6. The modified rake at ELS/AQ with BHEL make TCN VCU has HaslerRail (Sierra) make WTB gateway. BHEL shall carry out the tests along with HaslerRail Engineers as per the protocol with the rake in between In Central Railway (CR). The tests shall be completed by 15.09.19.
7. At present there is no M/s Duagon make WTB gateway in the locomotives. Therefore, M/s Duagon (Through M/s Klovertel) shall carry their own WTB gateway and perform the test with the rake as per the protocol in the modified rake in CR by 15.09.19.
8. In a similar line C-DAC, Medha and BTIPL shall also perform the test as per their protocol and establish the communication in CR by 15.09.19.
9. RDSO has circulated the draft ICD for comments after meeting on 10.06.19. CLW shall prepare the draft upgraded ICD which will include necessary signals in national reserve. The draft upgraded ICD shall be submitted to RDSO by 05.09.2019. RDSO shall take the comment from propulsion manufacturer on the upgraded ICD.
10. The upgraded ICD shall be validation at C-DAC/Trivandrum. All the propulsion manufacturer are advised to fix up the scheduled for validation of ICD. For this purpose technically competent personnel shall be deputed. The exercise shall be completed by 15.09.2019.

  
DSE/TPS 30/08/19