## GOVERNMENT OF INDIA MINISTRY OF RAILWAYS (RAILWAY BOARD)

2019/Proj./GMRC/RS/29/01

New Delhi, dated 26.02.2019

Managing Director,

Gujarat Metro Rail Corporation Limited, Block No.1, 01<sup>st</sup> Floor, Karmayogi Bhavan, Behind Nirman Bhavan, Sector 10/A, Gandhinagar, Gujarat - 382010

Sub: Introduction and operation of Standard Gauge (SG) Metro coaches manufactured and supplied by M/s Hyundai Rotem Company, South Korea with air suspension arrangement at secondary stage up to the maximum speed to 25 kmph over Gujarat Metro SG Rail network.

Ref: Ministry of Civil Aviation's letter संख्या-क्यू.15011/03/2018-19 त. वि. dated 25.02.2019

In reference to the letter cited above, provisional sanction of Ministry of Railways is hereby communicated for operation of Standard Gauge (SG) Metro coaches, manufactured and supplied by M/s Hyundai Rotem Company, South Korea to M/s. Hyundai Rotem Company's General Arrangement Drawing No. RGA00100GW0, is: DMC+TC+DMC with air suspension arrangement at secondary stage for <a href="INTERIM">INTERIM</a> operation of subject Rolling Stock <a href="up to the maximum speed to 25 kmph">up to the maximum speed to 25 kmph</a> under <a href="up to the maximum speed to 25 kmph">under 'One Train Only System'</a> over Gujarat Metro SG network.

Unique Transportation Code & Layout Drawing No. of proposed coaches of Gujarat Metro, having maximum axle load of 16.0t are as under:

SN	Type of coach	Unique Transportation Code	General Arrangement to M/s. Hyundai Rotem Company's Drawing No.
1.	Driving Motor Car	DMC	RGA10200GW0 Ver.01
2.	Trailer Car	TC	RGA10300GW0 Ver.01

The sanction is further subject to the following conditions/stipulations:

- 1. All the conditions/stipulations given by CMRS/WC vide letter No. 42-5/10/221 dated 24.02.2019.
- Since the proposed system of running of trains in the section is 'One Train Only System', GMRCL shall ensure that special provisions in accordance with Section- 87 'Application of Special Procedure' under Chapter- XII 'Other Systems of Working' of the Metro Railways General Rules, 2013 are framed before the commencement of commercial operations of the subject rolling stock.
- As per para 6.7 of the Interim Speed Certificate No. UTHS/81/GMRC/Mech. dated 20.02.2019 issued by RDSO, Radio Communication shall be provided for the train operator to the OCC/Station throughout the section to enable the driver to contact OCC and station control room in case of emergency.
- 4. Before initiating train operations, GMRCL shall certify track fitness and safety of the rolling stock depending upon the actual condition of the bogie suspension system, brake system, wheel, axle and other safety related components.
- 5. As per para 8.2 of the Interim Speed Certificate, operation of the train in deflated mode of air spring would be permitted at a speed of 15 kmph upto the depot in order to clear the section.
- 6. GMRCL shall ensure that all the cable used in the rolling stock are compliant to BS6853/EN45545 standard. Fire survival cables shall be used in Passenger Alarm System,

Contd...2/-

- PA lines, Emergency Brake Loop and critical Control Systems. All other cables shall be fire resistant with improved fire performance and high resistance to temperature.
- Coach number or Unit number is not mentioned in EIG certificate for Rolling Stock. EIG sanction shall be obtained for each coach. EIG Sanction shall be obtained for all the future rolling stock also.
- 8. Apart from the minimum portion which is needed for current collection, rest of the Third Rail Current Collector (TRCC) shall be adequately covered by insulated material. Properly rated fuses shall be provided as close as possible to TRCC for protection of power cables.
- 9. It shall be ensured by GMRCL to get all their Manuals and Instructions related to Maintenance of Rolling Stock approved by Ministry of Railways (RDSO) and also to develop a mechanism to get their various maintenance practices audited periodically by RDSO. Hard copy of Maintenance Manuals, after being approved should be sent to the Commission.
- 10. During rolling stock maintenance, it shall be ensured that the height of equipment having minimum ground clearance on Metro Coaches does not infringe minimum dimensions mentioned in paras 3.1.4 and 3.1.5 of Chapter-3 of approved SoD for GMRCL (SG).
- 11. As per para-8 of "PREAMBLE" of SoD approved by Railway Board, the Kinematic Envelope for stations and all other locations shall not be infringed under any circumstances.
- 12. Brakes of the rolling stock shall be in good working order during the commercial operations and during other self- powered movements anywhere.
- 13. GMRCL shall ensure that a procedure for safe movement of rolling stock in depots and other such areas is also in place.
- 14. In accordance with para 8.4 of RDSO's Interim Speed Certificate, fresh oscillation trials shall be conducted for issue of Interim Speed Certificate at full speed. Copy of the report of these oscillation trials will be made available to the Commission of Railway Safety.

(Ruth Changsan)
Director/MTP
Railway Board

2019/Proj./GMRC/RS/29/01

New Delhi, dated 26.02.2019

Copy forward for information to:

- 1. **Chief Commissioner of Railway Safety**, N.E Railway, DRM office Campus 16, Ashok Marg, Lucknow -226001 w.r.t his endorsement संख्या-क्यू.15011/03/2018-19 त. वि. dated 25.02.2019
- 2. Commissioner of Metro Railway Safety (CMRS), Western Circle, Ministry of Civil Aviation, Government of India, 2nd Floor, Churchgate Station Building Annexe, M.K Road, Mumbai-400020 w.r.t their endorsement No. 42-5/10/221 dated 24.02.2019
- 3. Director General, RDSO, Manak Nagar, Lucknow
- 4. OSD/UT & Ex-Officio Joint Secretary, Ministry of Housing & Urban Affairs (MoHUA), Nirman Bhawan, New Delhi-110001