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Ref.No.MC/CB/NG

Date: 17.10.2011

महाप्रबन्धक (इंजी),
मध्य रेलव, सी०एस०टी०,
मुम्बई – 400 001.

Sub: Speed certificate for operation of MLR type air braked NG coaches with NDM6/NDM1/NDM1A locomotive over NRL-MAE section of Mumbai division of Central Railway.

The MLR type NG coaches presently operating with NDM6/NDM1/NDM1A locos at speed of 16 Kmph on the NRL-MAE section (610mm) of Central Railway are provided with hand brake / foot brake which are to be operated by brake porters. Now, twin pipe graduated release air brakes system has been provided on the existing MLR type coaches by Central Railway to enhance safety. For the introduction of air brakes in the NRL-MAE section of Central Railway, it was considered necessary to conduct controllability and emergency braking distance trials with NDM6/NDM1/NDM1A locomotive upto a maximum speed of 16 Kmph or maximum sectional speed whichever is less with a trailing load of 7 NG coaches. The trials have since been completed with a trailing load of 7 NG coaches. The results of these tests contained in RDSO report No. RDSO/2011/TG/MT – 1121/F Rev.0, Amend. Nil dated 26.7.2011 followed by corrigendum no. RM1/B/118 dated 10.08.2011 indicate that train was controllable at maximum speed of 12 Kmph and performance of air brake system was satisfactory.

2. Based on the satisfactory controllability and EBD trials, it is certified that operation of MLR type air braked NG coaches with NDM6/NDM1/NDM1A locomotive over NRL-MAE section of Mumbai division of Central Railway may be permitted upto a maximum speed of 12kmph subject to the following conditions:

2.1 TRACK:

2.1.1 The track shall be to a minimum standard of rails of 20.80 kg/m on CIP/ST/wooden sleepers, N+3 density and minimum depth of ballast cushion below sleepers of 50mm clean on compacted and stable formation.

2.1.2 For track maintained to lower standard than that mentioned above, the Chief Engineer shall decide the lower maximum permissible speed on the basis of maintenance condition. In this connection, Railway Board's letter No.65/WDO/SR/26 dated 19/20.10.1966 may be seen. When the Chief Engineer considers that the road bed is not compacted or there is improper

drainage, he may suitably restrict the maximum permissible speed depending upon the local conditions.

2.1.3 On curves the maximum permissible speed shall be decided by the Chief Engineer concerned taking guidance from Indian Railways Permanent Way Manual second reprint 2004.

2.2 BRIDGES:

2.2.1 The clearance in regard to bridges refers to standard design of girders, slabs, pipe, culverts, piers and abutments etc. for H Class standard loading.

2.2.2 There is no standard drawing issued by RDSO, which is available for narrow gauge. Hence all foundation, substructure, bearing system and superstructure for all type of non standard spans including arch bridges, if any should be examined and certified safe by Chief Bridge Engineer/Northern Railway. Suitability and safety of the bridges for rolling stock shall also be ensured by Zonal Railway.

2.2.3 Zonal Railways shall certify, the adequacy of existing bridges for permitting rolling stock based on physical condition of bridges. Bridges shall be kept under observation as considered necessary by the Chief Bridge Engineer of the Railway.

2.2.4 Location of bridges on which speed restrictions are imposed shall be notified by the Zonal Railways and incorporated in the working time table.

2.3 SIGNALLING:

2.3.1 Provision of GR, SR, SEM and all extant instructions issued from time to time shall be complied with.

2.4 ROLLING STOCK

2.4.1 Before initiating the operation, CME of the Railway shall certify the track worthiness and safety of the rolling stocks. He shall also ensure proper maintenance of the rolling stocks.

2.4.2 The locomotives under use should have provision to cater to air brake system of the coaches.

2.4.3 The brake system of NG coaches shall be maintained for specified brake application and release timings and it shall be ensured that leakage rate is not more than 0.2 Kg/cm^2/minute.

2.4.4 While going down the gradient, before starting from any station, the driver must ensure that the MR pressure is maintained between 7 – 8 Kg/cm^2.

2.4.5 The locomotives and coaches shall be fitted with cast iron brake blocks and air brake system.

2.4.6 The air brake system of locomotives and coaches shall be in proper working order and the minimum number of brake cylinders in working condition shall be 95% or as per existing rules of above section, which ever is more.

2.4.7 About operation of air-braked stock, the instructions contained in RDSO Misc. Report no. MP 572/82, Guide no.11 (Revision -01) Amendment no.1, Jan'2010 and Report no. MP – 1461/93) may be referred.

2.5 GENERAL:

2.5.1 All the permanent and temporary speed restrictions in force and those that may be imposed from time to time due to track, bridges, curves, signaling and interlocking etc. shall be observed.

2.5.2 Accurate calibration of the speed sensing device on the loco shall be ensured.

संलनकः कुछ नहीं।

(राजीव विश्नोई)
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प्रतिलिपिः

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2 मुख्य सुरक्षा आयुक्त रेलवे सेफ्टी, मिनिस्ट्री ऑफ सिविल एविएशन, नार्थ ईस्टर्न रेलवे आफिस कम्पाउण्ड, अशोक मार्ग, लखनऊ– 226 001.
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