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भारत सरकार नागर विमानन मंत्रालय (रेल संरक्षा आयोग)

GOVERNMENT OF INDIA MINISTRY OF CIVIL AVIATION (COMMISSION OF RAILWAY SAFETY)



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Date: 14/09/2022

No.C-18(7)/2022/ 902

General Manager, Central Railway, **Mumbai CSMT.**

Sub: Raising of sectional speed from 110 kmph to 130 kmph on IGP-BSL-BD UP Main line & DN Main line (length- 526 km) (excluding 3rd & 4th line) electrified section of Bhusawal Division of Central Railway.

Ref: 1) Your letter No. W.226/Raising of Speed/130 kmph/IGP-BD dated 10/08/2022 & 06.12.2021.

2) Commission's letter No. C-18(7)/2022/325 dated 11/03/2022.

Based on the documents and certificates submitted along with the subject application and subsequent letters in response to references from this office, sanction is hereby accorded for raising of sectional speed up to 130 kmph on Igatpuri – Bhusawal – Badnera UP & DN line from km 139.00 to km 665.00 (length 526.0 km) electrified section of Bhusawal Division of Central Railway for the track maintained as per relevant provisions of IRPWM (June-2020) up to latest correction slips, subject to compliance of the following stipulation/conditions:

(A) Engineering

- 1) Out of turn sanction of competent authority for provision of boundary wall/ sturdy fencing in entire length shall be obtained during the current financial year and work of provision of boundary wall/ sturdy fencing in entire length shall be completed within 3 years. In case sanction of boundary wall/ sturdy fencing in entire length is not obtained in one-year time from the issue of this letter, this sanction stands revoked and zonal railway should obtain revalidation to this sanction before completion of one year.
- 2) For the first 3 months of implementation of increased sectional speed, OMS recording shall be arranged twice a month and action taken accordingly. There after usual frequency of OMS may be followed.
- 3) As brought out by Central Railway vide letter at Reference-1, the data submitted in Annexure-3 reveals that average MRO per year is about 102.33 and average CRO per year is about 77.66. Hence, necessary fencing at the trespassing prone locations, should be constructed within six months of raising of speed to 130 kmph. Wherever fencing/wall is not completed at trespassing prone locations, speed restriction of 110 kmph shall be imposed, which shall be relaxed to 130 kmph by CTE only after completion of fencing work for that stretch.
- 4) As brought out by Central Railway vide letter at Reference-1, the data submitted in Annexure-11 reveals that formation treatment work for a length of 17.82 km is balance.

441

Wherever there is unsuitable/weak formation, speed restriction of 110 kmph shall be imposed, which shall be relaxed by CTE only after completion of formation treatment work and ensuring the performance of formation to be satisfactory.

- 5) The work of path way/trolley refuge/man refuge (wherever missing) shall be completed within one year on major/important bridges. Till then, suitable speed restriction as deemed fit by CTE & CBE shall be imposed, wherever considered necessary. This shall be ensured by CBE. Necessary instruction shall be circulated to the staff concern by CBE.
- 6) PCE shall ensure that the track is maintained to the required standards. Track recording and monitoring, USFD testing, OMS recording, Oscillograph runs are carried out as laid down in IRPWM and other relevant codes and manuals for 130 kmph. He shall impose suitable speed restriction wherever there is any deviation from the laid down standards. He shall ensure that the maintenance system of track and bridges is in accordance to the codes, manuals and instructions of Railway Board issued from time to time.
- 7) PCE shall also study the section for any infringement to IRSOD and examine their implication at 130 kmph. Wherever necessary, condonation shall be obtained and suitable SR shall be imposed by him. A certificate is to be issued by him that he has examined all infringements and obtained condonation of competent authority for the same.
- 8) PCE shall ensure and certify that adequate safety measures have been taken to protect the maintenance staff during working on track and during trolley movement and there is no danger to the maintenance staff (trackmen and supervisors) if all trains are permitted to run at 130 kmph.
- 9) All balance quantity of TWS which has already been sanctioned shall be replaced and sanction for remaining quantity out of total requirement shall be obtained and completed within 3 years.
- 10) Improved SEJ shall be ensured on entire section in next 2 months.
- 11) Track geometry of the yard as well as of the block section should confirm to theoretically approved standards which includes Alignment, L-Section, and Layout calculations. Any deviation from theoretical standard should be attended on priority in planned manner. Till such time they are corrected, suitable speed restriction should be imposed. This will be ensured by:
 - Plotting L-Section and alignment of the entire section and doing the necessary correction if any, thereof.
 - Layout calculation should be done for all the crossovers in the yard connected with main line. Actual length of crossover should match with the theoretical length of crossover. In case actual length of crossover is not matching with its theoretical value, necessary correction should be done on priority till then suitable Speed Restriction should be imposed.
 - Making all the sand humps absolutely standard.
- 12) Zonal Railway should submit the following documents to the Commission for appreciation within 3 months' time:
 - L-Section and alignment of entire section showing the correctness if required thereof.
 - Layout calculation of all crossovers in the yard connected with main line along with their comparison with theoretical value/length and correction if needed then planning thereof.
 - Curve calculation for fixing speed potential on the curves based on actual filed data i.e., versine, transition length, cant etc.
- 13) At the stations where the FOB has not been constructed:
 - a) Pathway at the both the end of platform shall be constructed.

421

- b) Passengers are supposed to cross the tracks to catch the stopping trains. Similarly, alighting passengers from stopping trains are also supposed to cross the track to disperse. For the safety of these passengers, announcement through PA system for sufficient duration of time before and after arrival of stopping train shall be done to warn such passengers about passing through trains.
- 14) With reference to the data submitted in Annexure-9 of your letter at ref-1, few works to comply minimum and recommended track structure for 130 kmph, are still balance. PSR of 110 kmph shall be imposed for those stretches and after completion of works, CTE may relax the PSR.
- 15) Sanction of raising of speed is excluding 3rd and 4th line. The sectional speed of 3rd and 4th line will remain as it was before this approval.

(B) Signal and telecommunication

- 1) PCSTE shall ensure that the S&T installations and interlocking arrangement at stations and at level crossings, combination of signals, aspect control charts, inter signal distances etc. are safe to permit maximum speed of 130 kmph and all provisions of GR (General Rules) and Signal Engineering Manual are satisfied. He shall also ensure that Railway Board's and RDSO's instructions issued from time to time are being followed and there is no deviation at any station. PCSTE shall also certify that the maintenance system including manpower and equipment of all S&T installations are in place and adequate for keeping the assets fit to run at 130 kmph without causing danger to public using it. He shall impose suitable speed restriction as deemed fit, wherever necessary for the public safety.
- 2) All provisions contained in SEM Chapter-7 regarding essentials of signaling are strictly complied.
- 3) In case of any station having interlocking standard less than Std-III, PSR of 110 kmph shall be imposed. However, signaling at such stations should be upgraded to STD-III interlocking within one-year time from increase of speed in station yards up to 130 kmph.
- 4) With reference to the data submitted in Annexure-21 of your letter at ref-1, the competent authority sanction under GR 3.04(1) for locating signal on L.H.S are still under process. In Annexure-22, the competent authority sanction under GR 3.07(7) for combination of signals are still under process. In Annexure-23, the competent authority sanction under GR 3.47 for permitting simultaneous movements are still under process. All the sanctions as mentioned above shall be obtained before implementing sectional speed of 130 kmph.

(C) Electrical

- 1) PCEE shall certify that the OHE in the section is maintained to the required standard for 130 kmph as per ACTM and instructions of Railway Board/RDSO issued from time to time have been implemented in the section. He shall study all the infringements and deviation to ACTM and impose suitable SR wherever the deviations and infringements so warrants.
- 2) PCEE shall also ensure that for all electrical rolling stock running in the system, all the conditions laid down by Railway Board/RDSO have been complied and are being ensured.
- 3) PCEE shall ensure that the maintenance system including manpower and equipment of all electrical rolling stock is in place and adequate for keeping the assets fit to run at 130 kmph, without causing danger to public using it.
- 4) Locations (especially on curves) where actual implantation is less than the minimum requirement, marking/benchmark shall be done as per the provisions of ACTM. Further, track slewing at these location shall be restricted and JPO between CEDE & CTE in this regard shall be issued. Relocation of such masts shall be planned & executed in time bound manner.
- 5) There are 588 leaning masts in the section. The leaning behavior of those masts shall be analyzed and critical cases should be attended before March 2023.

- 6) With reference to the data submitted in Annexure-33 (point no.2) in your letter at ref-1, the axial distance of contact and catenary (at DN ML and UP ML under old ROB @ Nashik road and at DN ML under old ROB @ Manmad) are lesser than 150mm. As per ACTM VOLUME (II) PART (II) APPENDIX (I) clause 9.4, necessary speed restriction shall be imposed
- 7) It was observed that box type cantilevers are provided on ML. Speed restriction shall be imposed till the time the same is replaced.

(D) Mechanical

1) PCME shall certify that the maintenance system including manpower and equipment of all rolling stock controlled by Mechanical department, is in place and adequate and equipped for maintaining the assets to the standard keeping them fit to run at 130 kmph, without causing danger to public using it. PCME shall also certify that for all rolling stock running in the system and is under his control, all conditions laid down by Railway Board/RDSO from time to time, have been complied and are being ensured.

(E) Operating

- 1) PCOM shall ensure that that all provisions of GR are satisfied in running the trains at 130 kmph. He shall certify that there is no deviation of any of the rules of GR at any station. Wherever there is any deviation, it needs to be certified that approval of competent authority exists and it does not cause any danger to public using it when the sectional speed is raised to 130 kmph. He shall propose suitable speed restriction wherever he feels that it is not safe to run trains at 130 kmph due to such deviations at frequency higher than existing at present.
- 2) PCOM shall ensure that crisscross movements in the yards are restricted to bare minimum so as to ensure that there is no danger in permitting regular speed of 130 kmph at frequency higher than existing at present. He shall impose shunting restrictions and restriction on crisscross movements wherever deemed fit.
- 3) For the platforms on the run through line where trains will run through at the speed of 130 kmph, necessary precautions & measures (including Yellow paint marking from coping edge of PF at minimum 1.8 m distance to guide passengers & frequent announcement to alert passengers before train passing) for safety of shall be ensured.

(F) General

- Observance of all temporary and permanent speed restrictions in force and or those that may be imposed from time to time on account of track, bridges, curves, Signaling & Interlocking, OHE etc., on the section.
- 2) Railway shall ensure that adequate maintenance facilities and safety critical spares are available. Railway shall deploy competent staff for maintenance of track, signaling, traction & rolling stock.
- 3) Railway shall observe of all conditions/stipulations mentioned in Joint Safety Certificate, Bridge Certificate, Track Certificate, Signaling Certificate & OHE certificate enclosed with letter under ref. (1) above.
- 4) For Introduction of new rolling stock or for raising of speed of existing rolling stock, prior sanction of competent authority shall be obtained, after fulfilling all the requisite criteria as detailed in revised Policy Circular No.6 for sanction of speed for that rolling stock.
- 5) PCSO shall study the trespassing locations and analyze data of CRO. He shall certify that the vulnerable locations of CRO have been provided with sturdy fencing to prevent trespassing and there is no danger to public using it. In case any necessity is felt, suitable speed restriction to be imposed by him.

- 6) All the provisions contained in the Railway Board Letter No. 2014/CE- II/TSC/I pt-I dated 08.09.2016 regarding track structure for speed beyond 110 kmph should be strictly complied.
- 7) Engineering time allowance (ETA) should be suitably increased commensurate with saving in running time to meet out the challenge of the enhanced maintenance requirement at 130kmph.
- 8) Level crossing in yard is in violation of Para 901 of IRPWM. Such LCs in the yard should be suitably eliminated by means of outright closure, merger with adjacent LCs or by grade separators on priority within 2 years' time. If these LCs are not eliminated within 2 years' time, Zonal Railway should seek extension of the sanction to comply this condition. A road map may be prepared for elimination of LCs in the yard and submitted to the Commission. All other level crossings should also be replaced by grade separators within time bound manner as decided by the Ministry of Railways.
- 9) Any specific requirement felt to upgrade disaster management system for 130 kmph to be fulfilled. If no additional requirement is considered necessary, then it should be certified that existing system is sufficient to cater the need for higher frequency of trains operating the at 130 kmph. GM shall ensure the same.
- 10) Adequate training and counselling as and when needed of concerned operating and maintenance staff of Engineering, Electrical, S&T, operating and Mechanical departments for operation of train at 130 kmph should be ensured.
- 11) Ensuring compliance of the Stipulations of RDSO report "No. RDSO/2020/TG I MT-1682/F/Rev-0/Amendment NIL dated 05-03-2020 in connection with COCR of train consist of a rake comprising of maximum 24 numbers of AC and non-AC (EoG) LHB variant coaches including 02 numbers of LHB generator vans (01 No. of LWLRRM & 01 No. of LDSLRA) with single WAP7, up to a maximum speed of 130 kmph" over the section.
- 12) Railway administration shall ensure that noise level is maintained within the provisions of "The Noise Pollution (Regulation and Control) Rules, 2000".
- 13) Railway administration shall ensure that in case of non-air-conditioned coaches the dust ingress and air blast is maintained at the level specified by RDSO and various authorities. Wherever necessary suitable SR shall be imposed.
- 14) General Manager shall ensure that all safety category posts are filled and there is no vacancy in the safety category posts in any departments (S&T, Engineering, TRD and Operating).
- 15) Railway administration shall ensure that the timetables are revised and either two corridor blocks of $2\frac{1}{2}$ hours or one corridor block of 4 hours is made available for maintenance and are utilized exclusively for maintenance purposes.
- 16) General Manager shall ensure that maintenance arrears of all departments are wiped out in the shortest possible time, not later than 6 months.

General Manager shall ensure compliance of above before raising the sectional speed to 130 kmph. Wherever certification/sanction has been mentioned in this sanction, a certificate/sanction from competent authority shall be submitted to the Commission before implementing this sanction & raising the sectional speed. Any dilution of any of the conditions/stipulations mentioned in this sanction at any time shall render this sanction invalid.

Commissioner of Railway Safety, Central Circle, Mumbai.