



भारत सरकार  
नागर विमानन मंत्रालय  
(रेल संरक्षा आयोग)

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



रेल संरक्षा आयुक्त  
(पश्चिम परिमंडल)

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Commissioner of Railway Safety  
(Western Circle)

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No. 16-5/550/

Date: 26.10.2019

**OPENING OF THE NEWLY CONVERTED BROAD GAUGE LINE BETWEEN KALOL-  
SABARMATI STATIONS OF AHMEDABAD DIVISION OF WESTERN RAILWAY FOR PUBLIC  
CARRIAGE OF PASSENGERS & OPERATION OF FREIGHT SERVICES.**

GAUGE: 1676 MM

LENGTH: 19.26 KM


**AUTHORISATION**

- 1.0 In response to the reference made by the General Manager/Western Railway vide letter No.WNC/CRS/KLL-SBI/GC dated 14/15.10.2019 and compliance to clarifications submitted by CAO/CN/WR vide letters dtd 23.10.19 and 24.10.19, I have inspected the newly converted Broad Gauge Line between Kalol- Sabarmati Stations [from Km. 759.556 to Km. 778.816] of Ahmedabad- Mahesana section of Ahmedabad Division of Western Railway on 25.10.2019.
- 2.0 Dy.CRS/S&T/WC and DyCE/Br/BRC assisted me in the inspection. In addition CAO(C)/WR, CSE/WR, Engg.HOD/WR, CTPM/WR, CPM/ADLDRM/ADI and BOs of Ahmedabad Division/ CN deptt accompanied during the inspection.
- 3.0 Inspection was done by motor trolley/on foot/ OHE Inspection Car followed by Speed trial/ Current collection test (conducted using Oliver-G) by Spl. Train hauled by Electric Loco No.WAP7-30574(Max speed-120 Kmph).Based on the inspection, Speed trial test and perusal of the documents/certificates submitted by Western Railway, I am of the opinion that provisions of Section 22(1) of Railway Act, 1989 have generally been complied with and hence under the powers delegated to me vide section 28 of Indian Railway Act and Rule 22(1) of the "Railway's Opening for Public Carriage of Passenger Rules, 2000" as amended vide Notification No. 625(E) dated 21.07.2000, No.762(E) dated 08.10.2001, No. GSR 44(E) dated 27.01.2005 and No. GSR 76(E) dated 16.02.2005, I hereby authorize opening of the aforesaid GC section for Public Carriage of Passengers and Goods initially at a max permissible speed of 90 Kmph on main line, 60 Kmph on Bridge no 1038 and 15 Kmph on Cross-overs or the speed proposed in zonal railways' Joint Safety certificate or PSR/TSRs, whichever is less.
- 4.0 During Current collection test, 83 heavy & 31 medium sparks on OHE were observed. In view of heavy/ medium sparks noticed, there will be SR of 70 Kmph for trains on electric traction in new section till CEDE/WR certifies satisfactory condition of OHE parameters after adjustment of overlaps, cross-overs, ATDs etc. After attention to spark locations and satisfactory OHE performance to be certified by CEDE/WR, I authorize PCEE/WR to enhance speed for electric traction to appropriate speed upto maximum sectional speed. Initially for one month, goods train should only be run on electric traction.

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Aditya Grewal

5.0 This authorization is subject to the compliance of the following conditions / stipulations by Western Railway:

- (i) Observance of all temporary and permanent speed restrictions in force and/or those that may be imposed from time to time including 3 PSRs at Curve no 127, 129 and 130 respectively as proposed by CN deptt. and validated by CTE/WR.
- (ii) There shall be no infringement to IRSOD 2004 as amended from time to time. Platform height measured as 870-890 mm at Khodiyar will be rectified.
- (iii) Point & crossings shall be attended and parameters maintained as per IRSEM/ IRPWM and shall be certified jointly by SrDSTE and SrDEN before taking into operation.
- (iv) CSE will certify the satisfactory and safe completion of residual S&T works yet in progress.
- (v) One more round of tamping of main line as well as all points & crossing in design mode shall be carried out to achieve track parameters as per IRPWM norms.
- (vi) OEM of EI system should remain available at stations for minimum 30 days period till new system stabilizes.
- (vii) Released Traction bonds, old signal posts, location boxes and track released materials lying near running lines shall be removed immediately.
- (viii) Speed breaker on Diesel shed main gate opening towards LC- 244 shall be immediately provided.
- (ix) Restricted OHE Clearance board shall be provided on OHE mast on Chandkheda Rd platform.
- (x) OHE span of 72 mt has been adopted in section for 135 kg/mt<sup>2</sup> wind pressure as appraised. Approval of competent authority should be taken for relaxing directives of adopting 54 mt OHE span as mandated in Rly Board letter no 2001/Elect(G)/170/1 dtd 22.11.2016.
- (xi) At 400 KV overhead powerline crossing at Loc. 765/13-15, height of tower on right side is 50 mt whereas the horizontal distance from track is 43 mt only. This is permitted only if tower is rigid/well founded. Railway should obtain undertaking from DISCOM for tower being well founded/rigid, else its condonation should be processed.
- (xii) Technical approval for providing OHEs of Up and DN main line on common TTC mounted on bridge pier shall be obtained at Bridge-1044A.
- (xiii) Curtain wall of adequate length and strength shall be provided on Major Bridge- 1038 in view of pier foundation depth(2.40 mt) being less than required depth of 2.65 mt. Waterway which was in blocked condition below Up line shall be made clear and flooring work completed. After completion of these works, CBE is authorized to relax the Speed to appropriate speed level duly confirming safe and sound condition of new bridge with prior intimation to Commission
- (xiv) In major bridge no 1049, depth of abutment foundation and pure foundation is 0.62 mt and 1.91 mt respectively with hydrological details of scouring etc not available as per Completion Plan. Necessary protection should be done in 3 months time after detailed hydraulic calculation duly approved by CBE/WR. In case it is not complied, SR will be imposed of 60 kmph.
- (xv) Traction Station working rule diagram provided in SM's room at all stations were not visible from the SM's table. It shall be replaced with bigger font sizes within a week time and provided on wall in front of SM's table.
- (xvi) In track alignment from Km 759/14 to 759/28, it was observed that only 25 % MG formation is used for BG line and 75 % formation is new one but without blanket material. Immediately stone pitching shall be provided for slope protection after necessary compaction. CTE/WR may get the track formation checked and certified as safe for working of passenger/goods trains.
- (xvii) At few locations, fish plate bolts were found in loose condition, ERCs were missing, cotter pins were not fitted properly on some SEJ, ballast was heaped on shoulder touching rail top, greasing of outer rail not done at 3/5 degree Curves. CPM/ADI shall get all such defects attended in one week time by launching special drive at DyCE/C level.
- (xviii) At LC-233, New gate working instructions were not available. Neither Safety instructions related to 25 KV OHE were distributed. This shall be completed immediately in bilingual form.
- (xix) At Loc. 770/14, guy rod was not provided. At Loc. 773/2, AT was found not modified.
- (xx) At Loc. 774/23, fencing need to be extended near LC-241 to prevent trespassing of public.
- (xxi) At Loc. 777/23, abandoned FOB (out to out) shall be removed in 2 months time and till such time, division shall ensure monitor and ensure its safe & intact condition so as to avoid any safety risk to trains.
- (xxii) OHE foundations at number of locations were in exposed condition. Number of OHE/anchor foundations were found redundant. These shall be removed.



- (xxiii) Trolley refuses at some locations need to be dressed up with ballast to enable smooth shifting of trolley.
- (xxiv) Tower wagon inspection:
- All 10 cross-overs were not jointly checked with division.
  - Y- value of ATD at Loc. 759/36 & 768/6 were found excessive and needs adjustment.
  - Bent steady arm at 4 span IOL (Loc. 759/40) was not provided.
  - Below ROB at Loc. 762/16, bonding of check rail was not done. Protective screen was also not provided.
  - ATD at Loc. 768/6, guide tube was not provided and anti-falling rod was not connected with anchor fitting.
  - Anti-wind clamp was not provided at 9 locations.
- (xxv) Rubber mat was not provided in front of CTR & IPS at all locations/ stations/ LC Gates. At Kalol Relay Room, false ceiling needs attention. Quality of S7 T works was also not upto mark with shabby/untidy wiring and no records/drawings available.
- (xxvi) Khodiyar:
- Point 150: LHTR setting was up to toe only & RHTR setting was up to 1<sup>st</sup> sleeper only.
  - S-46: Multi lamp route indicator UHPR not provided with AC immunized relays (06 nos. relays).
  - Window type ACs (only 2) were provided in relay room. Stand by ACs need to be provided early to ensure staggered working of ACs.
  - Fire Alarm System was not provided. Cable entry to IPS room & Panel room to be plugged.
  - Data logger networking was not done. Data logger - relay contacts of Object Controller & Control RRI validation was not done.
  - Auto phone was used for Control, TPC, etc. This should be replaced by 4 wire direct dialing phone.
  - Half location box for point no. 201/202- KLCR was not earthed.
  - Visibility of signal/points etc on new VDU was not upto mark and shall be improve in 2 months time and compliance reported failing which sanction will become invalidated for EI.
  - Smoke detectors should cover maximum area of relay room, IPS room, etc.
- (xxvii) LC-240: Location box AC-1 for Down Distant & Cable armour was not earthed.
- (xxviii) LC-243: Location boxes, signal posts and other released gears of old MG alignment to be dismantled & removed from site. Earth for ELB- stop post (hut side) was not seen at site.
- (xxix) At Gate signal GS-6, signal post was not earthed. At Location box AC-3, sand filling & plastering were not done. Cable armour was not soldered.
- (xxx) Point no. 139 at Sabarmati: Cable conductors for point operation to be strengthened as point operating voltage dropped to 31 volt during obstruction test.
- (xxxi) The implantation of Signal poles and its location respect to OHE masts as per provisions of ACTM Para 18.11 and Signal Engineering Manual Para 22.3. shall be ensured by CES/WR.
- (xxxii) Bonding and earthing of track (including water/fuel pipelines at platform), platform fencing etc. in the section as per the approved plan in accordance with the code for bonding and earthing for electrified section equipped with single phase 25 KVAC 50 Hz traction overhead equipment shall be ensured.
- (xxxiii) Ensuring earthing arrangements at Switching stations as per approved earthing plan. Ensuring separate earthing of electrical and S&T equipments.
- (xxxiv) Approval of competent authority for modified signal circuits.
- (xxxv) OEM certification for proper installation, testing and commissioning of all the S&T equipment, like IPS, data logger etc. provided at the station shall be ensured and pre-commissioning checks as per RDSO check list shall be complied duly witnessed by open line.
- (xxxvi) All welds should be properly painted & numbered and recorded in the weld register with their tolerances. USFD testing of all newly laid AT welds on the main line as well as loop lines should be completed and all the defective welds should be removed. Till that, all the defective welds should be clamped with joggled plates and supported on wooden blocks.
- (xxxvii) All train passing staff at the stations shall be made to understand the new Station Working Rules and their re-assurances obtained in the Assurance Register after proper counseling and evaluation. They should be properly trained for VDU working with MACLS. They shall be in possession of valid competency certificate for the operation of new signaling systems.
- (xxxviii) Double locking is provided in the relay room. The opening and closing of relay room shall be monitored by data logger and networked to test room.
- (xxxix) Deployment of adequately trained maintenance staff for Permanent way, Electrical and S&T department from the date of opening of passenger traffic. The section should be


commissioned only after ensuring trained manpower & material resource particularly for new S & T system. Safety instructions for working in 25 kv electrified section shall be imparted to all staff including supply of jumpers etc to PW staff.

(xi) Compliance of all stipulations as mentioned in Joint Safety Certificate, Bridge certificate and Track certificates submitted by Zonal railway.

6.0 I hereby authorize PCE/WR to increase speed of section from 90 Kmph to max permissible speed on main line and from 15 kmph to designed speed for cross-overs after ensuring safe and satisfactory maintenance & stabilization of track parameters as per IRPWM norms duly confirmed by site inspection and OMS trials by CTE/WR.

7.0 Any dilution in the stipulation as detailed above suo-moto by Railway Administration shall automatically invalidate the authorization. Validity of CRS sanction is 3 months.

8.0 Immediate intimation should be given to the Commission for compliance of the conditions / stipulations of this Authorization with photographs prior to introduction of train services in the section.

  
26.10.19  
(R.K. Sharma)


Commissioner of Railway Safety  
Western Circle, Mumbai

No. 16-5/550/

Date: 26.10.2019

**Copy forwarded for information and necessary action to:**

1. Chief Commissioner of Railway Safety, Ashok Marg, Lucknow-226 001
2. Secretary (Civil Engineering), Ministry of Railway, Rly.Bd., New Delhi
3. General Manager, Western Railway, Mumbai
4. CAO/CN/WR
5. PCOM, PCEE, PCSTE, PCSO/WR
6. DRM/ADI
7. CPM/ADI

  
26.10.19  
(R.K. Sharma)

Commissioner of Railway Safety  
Western Circle, Mumbai