Public Works (1895) Department.

RAILWAY BRANCH.

G.O., No. 275-R

DATED 13th September

[Despatch Abstract.]

Mr. J. E. N. Boydell, Executive Engineer — Grants an extension of eight days' joining time under article 198, Civil Service Regulations when transferred to the Arsikere-Mangalore Railway Survey.

[P. W. Ry. 1,000—11-8-99.]

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SOUTH INDIAN RAILWAY (INCLUDING THE MAYAVARAM-MUTTUPET AND VILLUPURAM-DHARMAVARAM RAILWAYS).

(Metre Gauge.)

Total mileage open for traffic ... ... MILES. 1,096.

Inspection report by C. T. R. SCOVELL, Esq., Government Inspector of Railways, Madras, for the half-year ended 30th June 1895.

The inspection was carried out between the 8th and 21st July 1895. The Acting Chief Engineer, Superintending Physician and Deputy Locomotive Superintendent were present throughout the inspection; the Resident Engineers and Assistant Traffic Managers accompanied the party over their respective divisions.

2. *General.*—The line is generally well kept up. The road was in good running order throughout. The restriction on speed on the Villupuram-Guntakal and Máyavaram-Muttupet Railways may be removed.

Feeder Roads.

3. *Serndanur station* (*South Arcot*), *mile* 104.—This new station, which will be ready for opening in about two months' time, requires a feeder road.

4. *Máyavaram-Muttupet Railway.*—The main road which runs more or less parallel with the railway at a distance varying up to $1\frac{1}{2}$ miles is metalled for 11 miles north and 16 miles south of Tiruválúr. All the stations on this railway are either situated on this main road or are accommodated by unmetalled cross-roads which, except in the rainy season, give good enough access; but the cross-road to Tirunattiyattangudi, which has only just been finished, is very rough.

The railway approach roads are metalled and though not in first-class order are better than the district roads.

5. *Chavadipalayam* (*E*)., (*Coimbatore district*).—Although in November 1894 the President, District Board, was asked to construct a feeder road to this station, nothing has yet been done.

6. *Tirukkóyilúr* (*South Arcot district*).—A causeway across the Ponnaiyár river is required to enable the feeder road, which has recently been finished, to be of much practical use.

7. *Chellankuppan tank, mile* 133 *G.* (*South Arcot district*).—This tank, which burst in 1891, has just been repaired, but the calingula has not been extended.

Bridges and Culverts.

8. *Adyar bridge.*—A crack has recently been discovered in one of the vertical struts; it is probably an old one and will at present be carefully watched.

9. *Mile* 63/0 *A.* (*Chingleput district*).—An 18 inch culvert has recently been rebuilt, but the culvert which runs under the public road opposite to it requires to be cleaned out or an Irish bridge substituted.

10. *Mile* 54/2 *A.*—No further movement has occurred; the struts have been strengthened with rails.

11. *Pálár bridge.*—The overhead bracing has been completed.

12. *Mile* 92/3.—A tension link in the 2nd bay of this 120 feet girder is cracked along the fibre for some 2 feet. Although probably an old crack, the Chief Engineer will consider the best way of supporting it.

13. *Ponnaiyár bridge.*—Road over this bridge is very rough, but sound; it will however be cross-sleepered soon. Brackets to fit under the rail-bearers between them and the bottom flange of the cross-girder are under supply. These brackets will be fitted to all rail-bearers in bridges of this type (100 feet spans).

14. *Coleroon bridge.*—Road very rough over this bridge, but sound.

15. *Devanudee bridge.*—7 × 30 feet girders much corroded. One span has been sleeper-stacked. New girders are under order.

16. The causeway at mile 252 is making good progress. The work is of excellent quality.

17. *Mile* 290/16 *G.*—A new 15 feet girder bridge was inspected and passed. The girders have been strengthened up to the standard fixed by the Government of India.

18. The loose bed stones noticed in the last inspection report have been recemented.

19. The longitudinal timbers have been replaced by cross-sleepers on the bridge at 442 T; arrangements are being made for similar substitution on the bridge at 433 T., as well as for the additional rolled cross-beams recommended for girders on the Dharmavaram section in the last report.

Girder-strengthening.

20. All the bridges included in the list given in the last inspection report have now been completed.

A new estimate is about to be submitted for strengthening 23 spans of 10 feet and 9 spans of 12 feet girders; two of these latter have already been completed and one is in hand.

The cross-timber road to replace the weak cross-girders of 30, 50 and 70 feet spans has been arranged for. Three bridges have so far been completed.

21. Karúr bridge (Erode branch) might be made available for road traffic with pecuniary advantage to the company.

Ballast and Permanent Way.

22. The new 50 lb. road has now been laid through to Tuticorin with the exception of 35 miles (390–425). Contracts have been let for the supply of the necessary material to complete the main line.

23. The section Cuddalore-Máyavaram requires attention.

24. The Máyavaram-Muttupet line is now in very good order, particularly between Máyavaram and Tiruválúr.

25. Between Tirumangalam and Virudupatti, the banks are low in places and road is a bit below standard.

Steel Sleepers, Villupuram-Guntakal Railway.

26. Three sleepers were taken out of the road at 110/10 G. and examined: two were much corroded on lugs and rail seat, one completely worn through. The keys had entirely lost their original shape. The sleepers on being weighed were found to have lost about 9 per cent. At mile 229/8–10 the road was opened and examined. The steel keys were found to have much corroded, and the corrosion of the keys and lugs had infected the adjacent rail web and flanges. Four sleepers were removed and weighed 260 lb. as against their original weight of 280 lb. Keys were found to be much corroded in Kurabalakóta yard though, between this station and Chinna Tippasamudram, they were found to be in good order.

27. Where practicable, all permanent-way gangs imprest stores have been removed either to stations or to level-crossings where gatemen are stationed.

28. Ballast short in places between Pákala and Tirupati.

29. Banks require making up in places between Tanjore and Ayyampéttai, mile 152, and on the Máyavaram-Muttupet Railway generally.

30. An experiment was made at Chingleput to see whether the 20 feet locking bars were long enough to prevent a bogie vehicle, with 23′ 3″ between the two inside pair of wheels being split. It was found impossible to reverse the points until the whole train had passed clear. This experiment was repeated at Ayyalúr with the same result.

31. *Catch sidings.*—A safety siding off the main line has been recently put in at Ayyalúr. The points are weighted, interlocked with a disc signal and provided with a Stoney and Winter's locking bar. Two rail lengths might be removed at the end of the siding and the others sanded over.

32. Generally, I am of opinion that, at roadside stations, these safety sidings taking off the main line are a source of danger rather than a protection. The pointsman may lose his head at the last moment and turn the train into the siding, or a train out of control, unable to pull up at the station might be turned in and possibly destroyed, whereas it might have run on harmlessly and pulled up on the main line. When it is remembered that it is proposed to provide some 35 such sidings, I think some less dangerous design must be adopted. The primary object of safety sidings is to prevent run-away vehicles or those blown out of sidings from fouling the main line, and this will be adequately served without danger to passing trains by taking the siding off the loop, or merely by the insertion of a switch. By prohibiting hand-shunting over main line points and where the station itself is on a grade possibly ordering trains going in the up-hill direction, which require to do shunting work, to bring up on the loop, the safety siding will be equally efficient as if it were on the main line.

33. *Kurabalakóta.*—The catch siding here was found locked. The bolt and cottar were ordered to be removed. Three rail lengths should be taken up at the end of the siding and the remaining rails sanded.

This siding has been reduced to the level since last inspection.

Level-crossings.

34. The level-crossing gates between Saidapet and Beach should, in view of the number of trains that run or will shortly be run, be provided with a semaphore signal interlocked with the gate. Those crossings situated within distant signals should be provided with a simple arrangement whereby the distant signal could not be pulled off until the gates are closed.

35. The same arrangement should be adopted at the first level-crossing west of Trichinopoly junction.

36. Electric bells to warn gatemen of approaching trains should be fitted to the level-crossings between Egmore and Saidapet.

Fencing.

37. The aloe fencing is generally full of gaps and considering the large number of cattle accidents which occur on the so-called fenced line, I think wire fencing should be gradually substituted.

38. *Signals* require painting at Negapatam and at certain other stations, particularly on the Villupuram-Guntakal branch.

39. At some stations between Cuddalore and Máyavaram, many of the distant signal wire connections were in a very neglected state.

Stations and Buildings.

40. *Madras.*—The Municipality of Madras having increased the water-rate, it is proposed to revive the scheme for obtaining water from the Cooum.

41. *Tindivanam.*—The sanitary condition of the compound leaves much to be desired.