

DEPARTMENT OF THE ENVIRONMENT

RAILWAY ACCIDENT

Report on the Derailment that occurred on 30th August 1970 near Longhedge Junction, Battersea

> IN THE SOUTHERN REGION BRITISH RAILWAYS

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IN THE Southern Region British Railways

RAILWAY INSPECTORATE, DEPARTMENT OF THE ENVIRONMENT, 2 MARSHAM STREET, LONDON, S.W.1.

12th January, 1972

Sir,

I have the honour to report for the information of the Secretary of State, in accordance with the Order dated 10th September 1970, the result of my Inquiry into the derailment of an express passenger train at about 10.14 on Sunday, 30th August, 1970, near Longhedge Junction, Battersea, in the Southern Region of British Railways.

On a fine morning, the 07.30 Bristol (Parson Street) to Margate express passenger excursion train, consisting of 11 coaches and hauled by a diesel-electric locomotive, was travelling on the Up Kensington line between Latchmere and Longhedge Junctions at about 20 m.p.h. when, immediately after passing under the bridge carrying the Main lines from Waterloo, the locomotive struck a platelayers' trolley standing on the track and a 60 feet length of rail on the 'six foot' side of the line which had been turned by permanent way staff, but had not been fully replaced or secured in the track. The locomotive and the three leading coaches were derailed, but the locomotive and the first coach regained the track before the train came to a stand.

I am glad to report that none of the 410 passengers in the train or the railway staff were injured. After some delay a relief train was brought to the site and the passengers were transferred to it, this train finally departing at 13.03.

Rerailing operations, using the Stewarts Lane breakdown crane, were completed at 23.00 and repairs to the track were completed at 03.55 the next morning, 31st August.

DESCRIPTION

The Site and Signalling

1. Longhedge Junction lies immediately to the south of the Main lines from Waterloo to Clapham Junction. The Main lines from Victoria to Clapham Junction pass over the Waterloo lines, immediately to the east of the junction. Longhedge Junction signalbox controls the junction of the Kensington lines from Latchmere Junction with the lines from Clapham Junction 'A' signalbox and the junction of the Ludgate lines from Factory Junction with those from Stewarts Lane. The plan at the back of this report shows the track layout in the area of Longhedge and Latchmere Junctions, and the point of derailment on the Up Kensington line. The bridge which carries the Main lines from Clapham Junction to Victoria and Waterloo over the Kensington lines lies immediately on the Latchmere Junction side of the point of derailment and severely restricts the view of a driver approaching from that direction.

2. The signalling on the Kensington lines between Latchmere and Longhedge Junctions is on the Absolute Block System with Sykes Lock and Block instruments and all the signals are semaphore with the exception of the Longhedge Down Starting and Latchmere Down Distant signals which are combined as a 3 aspect colour light signal (OC.16). The locations of the signals are also shown on the plan. A signalpost telephone connected to Longhedge Junction is provided at Signal OC.16, while a telephone connected to Latchmere Junction is provided at that signalbox's Down Outer Home signal (No. 4).

The Track

3. The track of the Up Kensington line in the area of the derailment consists of 60 feet lengths of 95 lb BH rails secured by steel keys in AS1 chairs fixed to wooden sleepers. There was considerable sidewear on the 'six foot' rails and the task of turning these rails, and at the same time repositioning them so that there were correct expansion gaps, was being carried out on the morning of the accident.

The Train

4. The Bristol (Parson Street) to Margate express passenger excursion train consisted of 11 Mk IIA British Railways coaches fitted with buck-cyc couplings and was hauled by Brush-Sulzer Class 47 dieselclectric locomotive No. 1608, of 2,750 h.p. and weighing 114 tons. The combined brake power of the locomotive and train was 85.5 per cent of their total weight of 475 tons and the length was 805 feet.

The Course of the Derailment

5. The excursion train, after a change of train crews at Old Oak Common, left there at 10.01 and passed Latchmere Junction under clear signals. The Longhedge Up distant signal was at 'Caution' and the driver was applying the brakes when, on emerging from the bridge under the Waterloo-Clapham Junction Main lines, he saw a platelayers' trolley on the line ahead and men working. Despite an immediate emergency application of the brake, the locomotive struck the trolley and then ran onto a 60 feet length of track, the

'six foot' rail of which had been turned shortly before the accident but had not been secured in its chairs. In addition, due to the repositioning of other 'six foot' rails nearer Longhedge Junction, the loose length of bullhead rail was some 4 ins too long to fit between the adjacent rails and the end of it nearer to Latchmere Junction was standing on top of the next rail. The rail, on being struck by the locomotive, was immediately displaced and all the wheels on the 'six foot' side of the locomotive and first coacb were derailed over the rail length, but regained the track on reaching the next rail length which had been properly secured. The second and third coaches of the train were also derailed all wheels and did not regain the track.

Damage to the Train and Track

6. Damage to the locomotive was confined to the bruising of the tyres on the derailed wheels and to minor damage to the vacuum brake and steam heating hoses, the guard irons, the front end step and the bolts securing the screw coupling bracket. The first coach merely suffered from bruising of the tyres of the derailed wheels and the straining of the buck-eye couplings, but the second coach, in addition to tyre bruising and strained buck-eye couplings, suffered minor damage to the brake gear and other underfloor equipment, as did the third coach. Damage to the track included the buckling of four 60 feet BH rails and the destruction of 48 sleepers.

RULES AND REGULATIONS

7. Prior to the introduction throughout British Railways of the comprehensive new Rule 218A, laying down the arrangements for the protection of engineering works when the Engineer takes Absolute Possession of the line, the Southern Region had not used the instructions on pages 52 and 53 of the General Appendix to the Working Timetables, but had issued their own instructions headed "Occupation of Lines for Engineering Works", stated to be "supplementary to Rule 217". Relevant sections of these instructions are reproduced as Appendix A to this Report.

8. The new Rule 218A, which forms Supplement No. 4 to the British Railways Rule book 1950, was introduced on 9th May, 1970, and after laying down the method by which the rule shall be carried out, details the duties of various members of the staff involved. The most important sections of the rule, relevant to the accident, are reproduced as appendix B to this Report.

EVIDENCE

9. Driver G. R. Watkins took over the locomotive of the Margate excursion train at Old Oak Common. He had clear signals at Kensington and at Latchmere Junction, but reduced speed to 20 m.p.h. while passing over the facing junction at the latter point. The Longhedge Junction Up Distant signal was at Caution and he made a partial application of the brakes as he passed under the South Western Main lines. He then noticed two brakevans standing on the Down Kensington line and almost immediately saw a platelayers' trolley and men working on the Up line a short distance ahead of him. He immediately made an emergency brake application and sounded the whistle, but could not avoid hitting the trolley. Immediately after this Watkins felt the locomotive lurch, but it was not until he brought the train to a stand that he realised that a derailment had occurred. Watkins then contacted the guard to ensure that the necessary protection was carried out.

10. Guard J. M. Andrews took charge of the train at Old Oak Common. Travelling in the brakevan at the rear of the train, he was not aware that anything was amiss until he felt the train brake, heard the locomotive's whistle and the train came to a stand. He was not aware that the second and third coaches had been derailed until he met Driver Watkins. He immediately went back to Latchmere Junction to protect the train, but found that a member of the civil engineering department had already placed detonators on the line. He estimated that the speed of the train between Latchmere Junction and the bridge under the South Western Main lines was about 15 m.p.h.

11. The engincering supervisor in charge of the work was Assistant Permanent Way Supervisor H. Edwards, a man of some 22 years experience in the Civil Engineer's Department. He said he arrived at Longhedge Junction Signalbox at about 07.50 where he met Track Chargeman Sturges, the ganger in charge of the length of line, Relief Signalman Barnes, who had been detailed to act as the Movements Department Supervisor, and Relief Signalman Hylton, who had been detailed to act as the handsignalman to man the telephone at signal OC.16, and discussed the method of working with them. Edwards said he instructed Sturges to take possession of the Up and Down Kensington lines at Longhedge Junction and then go to Latchmere Junction where he was to take possession of the Up line and remain at Latchmere Junction signalbox. Edwards agreed that he knew that the possession had to be given up at 10.00 for the passage of 3 trains on the Up Kensington line, and that he told Sturges he would be told when he could lift the block. He said he would pass the message to Sturges via Barnes, who would pass it to Hylton, who in turn would pass it to Signalman Minett at Longhedge Junction, who would then pass it to Signalman Darrock at Latchmere Junction.

12. I questioned Edwards at length about rule 218A, both as regards taking possession and terminating it. Edwards insisted that he was both the engineering supervisor in charge of the work and also the Person in Charge of the Possession in accordance with Rule 218A. I pointed out that paragraphs 2.1.4 and 2.1.5 of Rule 218A stated quite clearly that the Person in Charge of the Possession must obtain the necessary assurances from the signalman that the line has been blocked and that he must countersign the signalman's

entry in the train register; also that if he cannot get to the signalbox, in this case Latchmere Junction, he must come to a clear understanding with the signalman by telephone, giving his name, department, the place from where he is speaking and the time (Appendix B refers).

13. Edwards admitted that he had deputed Sturges to take the possession, although Rule 218A makes no provision for such action, and agreed that the possession had really been taken in the manner used prior to the introduction of the new Rule, i.e. in accordance with Rule 217 and the Southern Region's instructions "Occupation of Lines for Engineering Works" (see Appendix A).

14. Edwards said that he was unable to terminate the possession at 10.00 due to a delay in removing a signal department's treadle. He did not consider it necessary to tell either Barnes or Sturges that he was going to overrun the allotted time, as the former was only present to protect the lines between Longhedge Junction and Clapham Junction 'A' when the erane was being used, while the latter had been instructed to stay at Latchmere Junction until Edwards lifted the block.

15. In answer to further questions concerning his arrangement for passing a message to Sturges via Barnes, Hylton, Minett and Darrock, Edwards agreed that this was not an authorised method, under either the old rules or Rule 218A, of terminating the possession, although he said he had always previously passed messages in this manner. Edwards also agreed that, since he was only between 400 and 500 yards from Latchmere Junction signalbox, he could have walked there and told them the line was clear.

16. Finally, Edwards agreed that he had been briefed on Rule 218A before its introduction. There had been considerable discussion on how possessions should be taken and indeed arguments about it. It was his understanding from these discussions that he could still appoint a man to take a possession.

17. Track Chargeman L. A. Sturges, who had charge of the length of line on which the accident occurred, said that he saw both Edwards and Barnes in Longhedge Junction signalbox before the possession was taken, and he learnt from Barnes that three trains were due to travel over the Up Kensington line between 10.00 and 11.00. Sturges said he blocked the Down Kensington line at Longhedge Junction after the arrival of the crane and signed the train register. He said he then telephoned the signalman at Latchmere Junction to block the Up line, after which he walked to Latchmere Junction, blocked the Up Kensington line by placing detonators on it clear of the junction leading to Clapham Junction 'A' and then went into Latchmere Junction signalbox and signed the train register, after which he remained in the signalbox.

18. Sturges said that Edwards agreed to terminate the possession by telephoning the signalman at Longhedge Junction and arranging for him to telephone Latchmere Junction. When in duccourse the telephone message came from Longhedge Junction, it was received by the signalman, Darrock, who, according to Sturges, said "You have got the all clear from Longhedge Junction go down and pick your detonators up and banner". He then went down and removed the detonators and the banner for the train to pass, after which he replaced them for a further possession and returned to the signalbox, where he was told by Darrock that the train had been detailed.

19. I questioned Sturges at some length both about taking possession at Latchmere Junction and about terminating it. He agreed he had taken no action to inform Edwards that the Up Kensington line was blocked; he assumed that Edwards had checked this with the signalman at Longhedge Junction. As far as the message to terminate the possession was concerned, Sturges assumed it was from Edwards but made no effort to check, even though Darrock merely referred to the message coming from Longhedge Junction. Sturges, in answer to my questions, agreed that it would have been better if he had spoken on the telephone himself, although he admitted that on many previous occasions he had accepted the word of the signalman that the line was clear and that he could remove the detonators and sign the train register.

20. Sturges said that he had been given general instructions in how to apply Rule 218A by *Inspector Allen-Ross* and that where single possessions occurred it had been agreed that a man would continue to be sent to the signalbox at each end of the job to block the line and sign the train register. It was clear from his answers to my questions that Sturges was not fully aware of the differences between the old arrangements for taking possessions and those laid down in Rule 218A, and in particular was not conversant with the duties of the Person in Charge of the Possession.

21. Signalman A. Darrock, aged 56 and a signalman for some 18 years, was on duty at Latchmere Junction signalbox on the morning of the accident. He said that, at about 08.20, Track Chargeman Sturges arrived in the signalbox and said that he had come to take possession of the Up Kensington line. He at once phoned the signalman at Longhedge Junction and told him of Sturges' arrival and asked him to place his block instrument to 'Train on Line', while the latter requested him to put the Down Kensington line block instrument to 'Train on line' to block the Down line. He said that Sturges placed the necessary detonators and banner on the Up line to protect it and then remained in the signalbox with him.

22. Darrock said that he was aware that the Up Kensington line had to be cleared for the passage of three excursion trains and that Sturges was also aware of this. At 10.00 he received the 'Is line clear' signal from Kensington South signalbox and immediately informed the signalman at Longhedge Junction that he had been offered the first of the excursions, to which the signalman said "right". After about five minutes,

according to Darrock, the Longhedge signalman phoned him and told him that the line was clear but that, immediately after the train had passed, the handsignalman was to replace the detonators on the Up line. He repeated the message to Sturges, although the latter was standing beside him during the phone call and overheard it. Darrock said that Sturges immediately left the signalbox and removed the detonators and the banner from the Up line.

23. Darrock said he received the 'Train Entering Section' signal from Kensington South at 10.08 and at once offered the train to Longhedge Junction. The signalman there acknowledged the signal and placed his block instrument in the 'Line Clear' position, whereupon Darrock cleared his signal for the train to proceed and on it passing his signalbox at 10.12 he sent the 'Train Entering Section' signal to Longhedge Junction. Darrock said he received the 'Obstruction Danger' signal from Longhedge Junction at 10.15.

24. I questioned Darrock at length over Rule 218A and asked him why he had not acted in accordance with it in granting the possession and in terminating it for the first excursion to pass. He told me that he had read the new rule when it was issued but had been given no instruction in its use by his Supervisors. With the possible exception of one occasion connected with the painting of a bridge between Latchmere and Longhedge Junctions, Darrock said that he had not used the new rule since its introduction but had continued to grant possessions and terminate them in the same way as prior to the introduction of Rule 218A. On this occasion he regarded Sturges as the handsignalman "taking the block" in accordance with the old instructions. Darrock agreed that neither the entry in the Train Register for granting the possession ("A. Darrock, Up line blocked between here and Longhedge at 08.20, signed L. Sturges."), not that for terminating it ("Up line cleared at 10.05 hours.") were in accordance with Rule 218A, and he admitted that the latter entry had been made sometime after the accident had occurred.

25. I pointed out to Darrock that under Rule 218A a message from another signalman stating that the line was clear was no authority for the possession to be terminated. He agreed but said that he had understood from Sturges on his arrival in the signalbox that an agreement had been reached over passing messages and that "when I telephoned the signalman at Longhedge Junction and told him the train was about, that he would contact the handsignalman (Relief Signalman Hylton at Signal OC.16—see paragraph 33) who would contact the man in charge and tell him the train was about, and that the man in charge would see that the line was safe for the passage of the train". Finally, I again asked Darrock why he had not attempted to carry out his duties in accordance with section 4 of Rule 218A, to which he replied that his mind "was concentrated on the old arrangements".

26. Relief Signalman K. H. Minett, a signalman of some 25 years experience, said he had been rostered for duty at Longhedge Junction from 18.00 on Saturday, 29th August, until 06.00 on the Sunday morning, but bad arranged to work until 10.30 for his own domestic reasons. He said that, on the morning of the accident, Relief Signalman Barnes, who had been appointed Movements Supervisor for the engineering possession of the Up and Down Kensington lines, arrived in his signalbox at about 07.40, as did the local ganger, Track Chargeman Sturges. Minett said that he discussed with Barnes and Sturges the question of lifting the possession on the Up Kensington line from 10.00 to 11.00 to allow three excursion trains to pass over the line. During this discussion Minett had his South Eastern Division Notice, giving details of the timings of these trains, open, and, as far as he could remember, both Barnes and Sturges looked at it; Barnes also wrote the times that the excursions were due to pass on the back of his Central Division Weekly Engineering Notice. Minett said that he also agreed that he would let Barnes know when the first excursion train was ready to leave Kensington by passing a message via the handsignalman (Relief Signalman Hylton) at Signal OC.16

27. Minett told me that he then agreed with Barnes the method to be adopted to ensure that the Clapham Junction 'A' lines were not fouled by the crane working on the Down Kensington line when a train was due to pass on either of the former lines. Minett agreed to telephone Hylton at Signal OC.16 when a train was required to travel between Clapham Junction 'A' and Longhedge Junction so that the latter could tell Barnes, who would ensure that the crane was not fouling the line on which the train would run. A number of locomotives and the empty stock for the Golden Arrow were successfully run past the engineering works in this manner.

28. In answer to my questions, Minett said that he believed that Assistant Permanent Way Supervisor Edwards, the supervisor in charge of the engineering works, was present when the discussions were taking place with Barnes and Sturges prior to possession of the Kensington lines being taken, but that he did not see much of him. He had seen more of Sturges, with whom he had discussed the details of the possession, including the use of the telephone on Latchmere Junction's Outer Home Signal on the Down Kensington line which was connected to the Latchmere Junction signalbox. Minett said that he presumed that they would be using this telephone for communicating direct with Latchmere Junction, as had been done on similar occasions in the past.

29. Minett said that at about 09.55 Darrock, the Latchmere Junction signalman, told him that "the first excursion was ready to leave Kensington" and he immediately rang Hylton at signal OC.16 and told him to pass this message to Barnes; Hylton repeated the message back to him correctly before leaving the telephone. At about 10.05 Barnes phoned him and, according to Minett, told him that the line was going to be cleared and the block was to be reimposed after the first excursion. Minett said "are you sure about that" and

Barnes replied "yes, we have another 20 minutes to half an hour's work". Minett said he then phoned Darroek at Latchmere Junction and told him that the line was to be cleared. The excursion train was then offered to him hy Darrock using the bell of the block instrument of the Up Kensington line, whereupon he had restored his block instrument, which had previously been at the 'Train on Line' position to proteet the possession, to the normal position and he accepted the train. "I got the 'Train Entering Section' signal within about 3 minutes and obtained 'Line Clear' from Factory Junction and operated the Home signal but did not pull off the Distant signal. Shortly afterwards the handsignalman (Hylton) telephoned from signal OC.16 and queried why the Home signal was 'Off'. I sensed something might be wrong and sent the 'Obstruction Danger' signal to Latchmere Junction at 10.15 and telephoned the signalman there, but he replied it was too late to stop the train which had passed his leading signal. Mr. Leutchford, the Yard Manager, Stewart's Lane, then telephoned and told me that the train had been derailed . . . the train was out of my sight round the curve".

30. Minett was questioned at length on Rule 218A. He agreed that he was familiar with the new rule from acting as Movements Department Supervisor on other engineering possessions. He said he had never received any briefing on the rule but had discussed it with his colleagues at work. He agreed that he had recorded in his Train Register:--

"Down line P/EW 35/36 para. 362.08.20 Down West Lon. blocked at No. 15 ground signal" and this had been signed by both Sturges and himself.

Subsequent entries were :---

- "P/EW 35/36 para 362. 08.20 Up West Lon. line blocked at Latchmere Jn."
- "10.04 from T. Insp. Barnes at OC.16 that Up Kensington line may be block lifted."
- "10.05 Up W. Lon. line cleared at Latchmere Jn."
- "10.15 Rcg. 12 to Latchmere Jn. Derailment on Up Kens. line."
- "10.30 Up line from Clap. Jn. 'A' all trains cautioned from C. J. 'A'."

Minett agreed that the initial entries on possession being given were not in accordance with Rule 218A para. 4.1.2 and that the entry regarding the message from Barnes "that the Up Kensington line may be block lifted" definitely implied that he was accepting the Movements Department Supervisor's message to mean that the block had been lifted, hut still maintained that the message he had passed to Darrock at Latchmere Junction was that the line "would be cleared". Minett also agreed that he was never advised by Darrock that the possession on the Up Kensington line had been lifted and that, despite para 4.4.3. of Rule 218A, which specifically states that "the signalman must request the signalman at the signal box in advance to restore the block indicator to the Normal position", he had done so merely on receipt of the 'Is Line Clear' signal from Darrock. Minett assumed, he said, that this signal indicated that the possession had been lifted at Latchmere Junction.

31. I also specifically questioned Minett on whether he had merely assumed that Sturges was 'the Person in Charge of the Possession', as defined in Rule 218A, and was told that he had. Minett agreed, however, that Sturges had not identified himself as such, neither had he asked Sturges whether he was 'the Person in Charge of the Possession'.

32. Relief Signalman N. Hylton said that he had been detailed on the Thursday before the accident to act as the handsignalman to man the telephone at signal OC.16. He said that he arrived on the site on the morning of the accident at 08.00 and acted as the agent between Minett, the signalman at Longhedge Junction, and Barnes, who was acting as the Movements Department Supervisor. When Minett required the erane to be clear of the Ludgate lines between Longhedge Junction and Clapham Junction 'A' for the passage of a train he phoned Hylton, who then told Barnes, who in turn arranged for the crane to be moved clear of the adjoining lines. Two locomotives and the empty stock for the Golden Arrow passed from Clapham Junction 'A' to Longhedge Junction and one locomotive in the reverse direction during the period from the beginning of the possession until about 10.00.

33. Hylton said that at about 09.55 Minett telephoned him and told him "that the first excursion was ready to leave Kensington" and that, after he had repeated the message to Minett, he went towards Latchmere Junction where he found Barnes who was walking towards signal OC.16. Hylton, whom I considered to be a most reliable witness, told me he was absolutely certain that the message he passed to Barnes was that "the first excursion was ready to leave Kensington", and that Barnes had then spoken on the telephone with Minett. I asked Hylton if he remembered the telephone conversation that Barnes had with Minett, but he said he was unable to remember it in detail. He believed that Barnes said that the crane was clear and it was all right for the train to come.

34. Hylton said that, as soon as he saw the Longhedge Junction Home signal on the Up Kensington line come 'Off', he realised something had gone wrong, as the permanent way staff were still working on that line. He immediately phoned Minett and asked him if the train had left. On being told that it had, Hylton said he told Minett that it couldn't come, but the latter said it was too late to stop it. The yard manager, Mr. Leutchford who was near him at the time, grabbed Hylton's red flag and ran towards Latchmere Junction in an attempt to stop the train before it became derailed, but he was too late.

35. Relief Signalman S. W. M. B. Barnes said that he had been detailed to act as the Movements Department Supervisor to the work shown in the Central Division Special Notice. The notice showed that the Down and Up Kensington lines were to be blocked from 08.00 to 10.00 and from 11.00 to 17.00 on 30th August for the engineer to turn rails between 1m. 75 chs. and the 2½ mp; a crane and materials train would be working. Barnes said that on the morning of the accident he arrived at Longhedge Junction at 07.40 and checked the arrangements for the possession with Relief Signalman Minett, who gave him details of the times that the three excursion trains were due to come from Kensington; Assistant Permanent Way Supervisor Edwards and Track Chargeman Burges were also in the signalbox at the time. According to Barnes a general discussion took place in the signalbox, both regarding the action to be taken to ensure that the crane turning the rails did not foul the lines between Clapham Junction 'A' and Longhedge Junction, and also regarding the three excursion trains coming from Latchmere Junction between 10.00 and 11.00. It was agreed that Minett would pass a message via Hylton, stationed at the telephone at signal OC.16, when the first excursion was ready to leave Kensington.

36. Between 08.00 and 10.00 Minett, the signalman at Longhedge Junction, passed several messages to Barnes via Hylton. In each case Hylton came and told Barnes that Minett wanted to pass a train on the Clapham Junction 'A'-Longhedge Junction line and Barnes said he instructed the erane driver direct to stop working and slew the erane clear of the line, although Edwards was present supervising the rail turning. Barnes said that at approximately 10.05 Hylton came to him and gave him a message saying "the first excursion is ready to come" and that he instructed Hylton to tell Minett "that it was all right for the train to come". Both I and the Railway Officers questioned Barnes at length on this erucial point of his evidence and I finally confronted him with Relief Signalman Hylton, who confirmed that the message he had passed to Barnes was "the first excursion is ready to leave Kensington" and that it was Barnes himself who passed the message back to Minett. Barnes denied that the word Kensington had ever been used, but did agree that he spoke direct to Minett. He was not sure of the exact words he used but he definintely talked about reimposing the block after the first train had gone through.

37. Barnes accepted that the only lines which were blocked were the Up and Down Kensington lines and was quite unable to explain why he did not realise that the excursion would be travelling from Latchmere Junction over the Up Kensington line, particularly as he had discussed this matter with Minett in Longhedge signalbox before the possession had been taken. He agreed that he had mistakenly assumed that the train was coming from Clapham Junction 'A.'

38. It is clear from Barnes' answers to my questions that he failed to reach a proper understanding with Edwards. He said that someone told him that Edwards was in charge both of the work and the possession, but apart from the general discussion with Minett, Edwards and Sturges in Longhedge Junction signalbox before the start of work he admitted he had no discussions with Edwards. Barnes said that he thought Edwards was a platelayer and the latter at no time told Barnes that he was in charge of the work or the possession, nor did he demur when Barnes gave orders direct to the crane driver.

39. Finally, although Barnes admitted to having been briefed on Rule 218A and was quite clear as to the difference between it and Rule 217, he agreed that neither this particular possession nor the majority of the possessions with which he had been associated had been taken strictly in accordance with the new rule.

40. Mr. J. Leutchford, the Yard Manager, Stewarts Lane, told me he visited Longhedge Junction at 09.43 on the morning of the accident, as he particularly wished to see the three excursion trains pass. He was in the signalbox when Minett was told that the first excursion had passed Kensington and he heard Minett tell Hylton, but left the signalbox before Barnes telephoned Minett. Mr. Leutchford said he walked down towards the engineering work and talked to Edwards who was near signal OC.16. He suddenly saw that the Longhedge Junction Up Kensington Home signal had been cleared and immediately told Hylton to telephone Minett and ask him if he had cleared the wrong signal. Hylton, after telephoning replied that there was a train on the line, whereupon Leutchford grabbed the telephone, told Minett to send 'Obstruction Danger' to Latchmere Junction and then ran towards Latchmere displaying a red flag. Edwards overtook Mr. Leutchford and took the red flag, telling him that there was a rail out, but they were unable to warn the passenger train in time to stop the derailment.

41. Mr. Leutchford told me that Barnes, whom he first saw some 200 feet on the Latchmere side of signal OC.16, insisted on returning to Longhedge signalbox with him to tell him that he thought the derailed train was coming on the Up line from Clapham Junction 'A'.

42. In an effort to obtain the true position regarding the implementation or non-implementation of Rule 218A I called Mr. M. Cotton, the Area Civil Engineer, Norwood Junction, Permanent Way Supervisor D. Allen-Ross, and Assistant Permanent Way Supervisor A. J. Prior, to give evidence. Mr. Cotton explained the procedure for planning works and arranging for possession, which was done on a Divisional basis. For all normal weekend possessions, he explained, a planning meeting was held on the Tuesday before the job was to take place. At the planning meeting, in this case on 25th August, the people who were going to be in charge of the various works were detailed, including Edwards as the supervisor in charge of the rail turning on the Up Kensington line. A representative of the Divisional Movements Manager attended the planning meeting and it was he who allocated Movement Department Supervisors to specific jobs. In this case the reason for asking for one was due to the movements of the crane affecting adjacent lines.

43. Mr. Cotton told me that he did not regard the appointment of Edwards as the man in charge of the work as also appointing him as the Person in Charge of the Possession in accordance with Rule 218A paragraph 1.3, nor were these persons ever appointed at the planning meetings. Generally meetings were held on site by the permanent way supervisors to agree the final details of the work and it was then that the Person in Charge of the Possession was nominated. Mr. Cotton said that he had not issued any instructions or guidance on the implementation of Rule 218A to his supervisors, but there had been meetings between the supervisors and the traffic department to discuss how the rule would be applied.

44. In answer to further questions, Mr. Cotton said that the Person in Charge of the Possession was normally appointed by the Supervisor in charge of the section. He agreed that on many occasions under the current arrangements the Person in Charge of the Possession was of a lower grade than the man in charge of the work and that this meant that the latter had to subordinate himself in so far as protection arrangements were concerned and also regarding any movements he wanted to make on the blocked line, even between the detonators.

45. Permanent Way Supervisor D. Allen-Ross, based at Victoria, was on leave at the time of the accident, so I confined my questions to him to the general implementation of Rule 218A. Mr. Allen-Ross explained that he and the other permanent way supervisors attended a meeting with Mr. Ballard of the Divisional Manager's staff to discuss the rule. Subsequently he or Assistant Permanent Way Supervisor Prior instructed all the track chargemen and other staff who carried out protection work in the operation of the Rule.

46. Mr. Allen-Ross agreed that apart from the Crystal Palace line, where there might be several jobs being carried out under one possession, the supervisor in charge of the job was logically the only person to be appointed the Person in Charge of the Possession. He or Mr. Prior appointed the Persons in Charge of Possessions on the Wednesday morning preceding the work. He pointed out, however, that in his part of the inner London area his supervisors were still working largely in accordance with Rule 217, sending a man to the signalbox at each end of a job to block the line, and that man would sign the train register; the Person in Charge of the Possession was the man who instructed the men to go and block the line. The reason for continuing to use Rule 217 and the Southern Region instruction was that he felt it gave a measure of protection that Rule 218A did not necessarily give by having a man permanently in the signalbox blocking the line. He also felt that the new rule was too complicated, at least for many of the staff he had in his area.

47. Assistant Permanent Way Supervisor A. J. Prior, who was the permanent way supervisor in the Victoria area during the week preceding the accident said he did not give instructions to Edwards on the Wednesday, but he was present when Assistant Permanent Way Supervisor Mercer did so. He considered it was made quite clear to Edwards that he was the Person in Charge of the Possession as well as the supervisor in charge of the work. He also confirmed that where there was only one job being carried out in a possession it was normally the same person who was in charge of the work and also the possession.

48. Mr. Prior confirmed that, despite the introduction of Rule 218A, possessions in the Victoria-Balham area were in general still being taken in accordance with the old rules and instructions. When dealing with possessions in the inner London area he arranged for the supervisors to place a man in the signalbox who countersigned the entry in the train register after the detonators and banners had been placed on the blocked line, as he felt this method was safer than that laid down in Rule 218A. In his view Rule 218A could not be applied in the Victoria Station area. He felt that even in the more open parts of the line the men working on the line felt safer if they had a man in the signalbox to see that the signalman did not let trains onto the blocked line. Prior agreed however that, even when working under the old arrangements, the hand signalman or 'blockman' should only terminate the possession as the result of a telephone message direct from the supervisor in charge of the work. He would not expect a message for a possession to be given up to be sent via signalmen or movements supervisors who might be assisting on general liaison matters.

49. Finally, I questioned Mr W. Ballard, the head of the Divisional Manager's Rules Section in the Central Division, and Divisional Movements Inspector T. H. Mann concerning the action taken to educate permanent way supervisors in the use of Rule 218A. Prior to the Rule being introduced a series of meetings had been held by both Mr. Ballard and Inspector Mann to explain the new rule, emphasize the main alterations, and discuss points raised by those present. Mr. Ballard agreed that he had encountered a good deal of criticism of the new rule at the start of these meetings, but as it was discussed in detail people scemed to be quite happy with it. He felt that the main criticism stemmed from a reluctance to accept a change in procedure from that to which they had been used in the past. Inspector Mann had also encountered initial opposition to the new rule, but after lengthy discussions he thought the engineering supervisors were quite satisfied with it. Neither Mr. Ballard nor Inspector Mann could recall a single instance of supervisors stating that they were going to continue with Rule 217 and the Southern Region Instruction and not adopt Rule 218A.

CONCLUSIONS

50. The direct cause of this accident was Track Chargeman Sturges' removal of the detonators and red banner protecting the Up Kensington line at Latchmere Junction on receipt of an unauthorised telephone inessage from Longhedge Signalbox via signalman Darrock. Had Sturges taken the trouble to check the authenticity of the message it is probable that he would have discovered that it had not originated from Assistant Permanent Way Supervisor Edwards and therefore he would not have terminated the possession.

51. The failure of Relief Signalman Barnes, acting as the Movements Department Supervisor, to realise that the first excursion was travelling on the Up Kensington line and not the Up line from Clapham Junction 'A' to Longhedge Junction, and his subsequent message "that it was all right for the train to come", is inexplicable. He had discussed the movement of the excursion trains over the Up Kensington line and the need to lift the possession between 10.00 and 11.00 with Minett, Edwards and Sturges immediately prior to the start of the job, when it had been agreed that a warning would be given when the first train was ready to leave Kensington. I believe that both Minett and Hylton passed the message that "the first excursion was ready to leave Kensington" correctly and that the blame for his mistake lies completely with Barnes. The mistake is all the more inexplicable in view of Barnes' subsequent discussion with Minett about reimposing the block after the passage of the train.

52. The arrangement agreed between Edwards and Sturges for passing the message to terminate the possession via Barnes, Minett, and Darrock was not only directly contrary to the procedure laid down in Rule 218A paragraphs 2.3.1 and 2.3.2, but also contrary to the previous Southern Region supplementary instructions to Rule 217. Edwards should have arranged to pass a clear telephone message direct to the signalman at Latchmere Junction, while under the old Rule he should have arranged to instruct Sturges direct by telephone and, in addition, the train should have been stopped at Latchmere Junction and the driver instructed to proceed at caution over the section of the line which had been obstructed. The arrangement made for passing the message was also completely unnecessary, as Edwards could easily have walked to Latchmere Junction signalbox, or to Longhedge Junction signalbox and telephoned Sturges, or have contacted him direct using the telephone at the Latchmere Junction Down Outer Home signal which was only some 600 yards from where the work was being done.

53. I also consider that Edwards was to blame for not having made it quite clear to Darrock, Minett and Barnes that he was the Person in Charge of the Possession in accordance with Rule 218A, and both Darrock and Minett were to blame for not insisting on the possession being taken in accordance with this rule and for not making correct entries in the Train Register Book. Finally, both Barnes and Edwards were to blame for failing to come to a clear understanding regarding their respective responsibilities.

REMARKS AND RECOMMENDATIONS

54. It is indeed fortunate that this derailment occurred at such a slow speed and that only one rail was out of position. Had the accident happened on a high speed section of the line, there is little doubt that the derailment would have been extremely serious and have resulted in a large number of casualties in this heavily loaded train.

55. In my opinion the most serious matter revealed at my Inquiry was the attitude of the permanent way supervisors and the local operating staff towards Rule 218A nearly four months after its introduction. I can find no valid reason why the new rule should not have been applied and the fact that a mixture of Rule 217, the Southern Region Supplementary Instructions and Rule 218A was being used with the knowledge and agreement of senior engineering supervisors is most disturbing. It was also disquieting to learn that vital messages, such as those taking and terminating possessions, were on occasions being passed through several persons although this is specifically against the rules.

56. At my request the entries in Train Register Books or Train Signalling Sheets covering 28 possessions taken on the Central Division of the Southern Region on the weekend 12th/13th September 1970 were examined. This revealed that in only 3 cases were the entries correct, in 15 cases the entries were partly correct and in 10 cases the entries were definitely incorrect. An examination of the same possessions by the Divisional Civil Engineer also revealed that in the majority of cases where the supervisor in charge of the work was not also the Person in Charge of the Possession the latter was a lower grade, and in 2 cases he was only a trackman. I do not consider that a trackman has sufficient authority either to deal with the operating staff or to ensure that the engineering supervisor obeys the rules. I recommend that wherever possible the engineering supervisor should be appointed the Person in Charge of the Possession must make absolutely certain that the person appointing the Person in Charge of the Possession must make absolutely certain that the person appointed is thoroughly competent to carry out his job and is also of sufficient scniority to ensure that all the supervisors in charge of the works obey his instructions regarding the implementation of Rule 218A.

57. Following my Inquiry, urgent action was taken by both the Divisional Manager and the Divisional Civil Engineer to ensure that all the personnel concerned adhered strictly to Rule 218A. Area Managers, Station Managers and Area Inspectors were instructed to see personally all the signalmen under their control and to examine a proportion of the entries in the Train Registers each week to ensure that they were in accordance with the Rule. Further instruction classes were run for all engineering staff whose duties required, or could require, a knowledge of Rule 218A and Area Civil Engineers were instructed to check that their supervisors always complied with the Rule. I have been assured that all concerned are now complying strictly with the Rule.

58. I also discussed the lack of observance of Rule 218A with the Chief Civil Engineer, British Railways Board, who in turn discussed it with the Chief Civil Engineers of all the Regions. I am informed that, following these discussions, assurances were received from all Chief Civil Engineers that the Rule was being strictly complied with in their respective Regions. 59. I also found that at the time of the accident there was no arrangement on the Southern Region to ensure that the signalman and the other operating staff concerned knew the identity of the Person in Charge of the Possession before the possession took place. While at the time of the accident this was not specifically laid down in Rule 218A, I consider it was definitely implied by Clause 1.3. which stated that the Person in Charge of the Possession, except in an emergency, should be appointed at a pre-planning meeting. I believe it to be essential that the Person in Charge of the Possession must know in advance of the British Railways Board and am informed that in general all concerned are informed in advance of the identity of the Person in Charge of the Possession. However, in order that there shall be no misunderstanding on this matter, it has been agreed that the wording of Rule 218A Clause 1.3 shall be amplified to read:—

"A member of the Engineering Department staff concerned must be appointed to be in charge of the possession. Except in emergency, who this man shall be must be agreed at a pre-planning meeting. The man so appointed is referred to herein as the PERSON IN CHARGE OF THE POSSES-SION. The name of the Person in Charge must be notified to the Movements Department in sufficient time to enable the Signalman involved to be advised prior to the date of the work".

I have the honour to be,

Sir,

Your obedient Servant,

P. M. OLVER,

Major.

The Permanent Secretary, Department of the Environment. EXTRACT FROM SOUTHERN REGION INSTRUCTIONS ON OCCUPATION OF LINES FOR ENGINEERING WORKS

"(4) When occupation is due to commence the person in charge must ask the signalman at the box in rear whether the last train to pass over the line prior to the occupation has actually passed, to ensure that no train shall be trapped on the section of line affected. The person in charge must also advise the signalman at the box in rear of the completion of the work, or if it is found that the work will not be completed to time, the earliest possible advice must be given to that signalman."

"(5) When the handsignalman is at a signal box during the period of occupation under the provisions of Rule 217, clause (b), he must sign the train register book at the commencement and at the termination of the occupation and on each occasion when the line is cleared temporarily for the passage of a train. Wherever it is possible, instructions to the handsignalman to take this action must be given personally by the person in charge . . . Wherever it is possible, instructions to the handsignalman, to remove the block will be given personally by the person in charge, but in cases where this is not practicable such instructions may be given by telephone by a similar process of question and answer and, in addition, the first train to pass over the line after occupation has been given up must be stopped and the driver instructed by the signalman to proceed with caution over the section of the line which has been obstructed."

APPENDIX B

EXTRACT FROM BRITISH RAILWAYS RULE BOOK 1950, SUPPLEMENT NO. 4, RULE 218A. PROTECTION OF ENGINEERING WORKS WHEN THE ENGINEER TAKES "Absolute Possession" of the Line.

1-Method

1.3 A member of the Engineering Department staff concerned must be appointed to be in charge of the possession. Except in emergency, who this man shall be must be agreed at a pre-planning meeting. The man so appointed is referred to herein as the PERSON IN CHARGE OF THE POSSESSION.

1.4 Where more than one job is to be carried out under one possession, an Engineering Supervisor must be appointed in charge of each job and he must report to the Person in charge of the Possession.

1.5 If considered necessary at the pre-planning meeting, a Movements Department Supervisor will be appointed and he will be responsible, in conjunction with the Person in charge of the Possession, for co-ordinating all traffic requirements.

2-Duties of the Person in Charge of the Possession

2.1 Arranging for the Possession.

2.1.1 The Person in charge of the Possession must arrange with the Signalman controlling the signal(s) leading to the line which is to be blocked, the actual time at which the possession can be granted and, at the agreed time, must arrange for the line to be protected as follows:—

(a) Three detonators, 20 yards apart, must be placed on the line concerned ½ mile ahead of the next convenient stop signal in rear of the work, which can be maintained at Danger; where there are facing or trailing points, or another line crossing ahead of that signal, the detonators must be placed ½ mile ahead of the points or crossing nearer the portion of line in the Engineer's possession.

Where, however, the distance of $\frac{1}{4}$ mile cannot be obtained, the detonators must be placed as far ahead of the signal, connection, or through crossing as circumstances permit.

Where the detonators cannot be placed $\frac{1}{4}$ mile ahead of a connection over which trains are being worked, and the Engineer requires to make movements with trains or "On track" equipment on the blocked line, a Handsignalman must be stationed at the detonators.

- (b) Three detonators, 20 yards apart, must be placed on the line concerned ahead of the work, i mile on the approach side of the next convenient stop signal, but where this distance cannot be obtained, the detonators must be placed as far from the stop signal as circumstances permit.
- (c) Where there is a junction in the blocked line, detonators must also be placed on all lines giving access to the blocked line. Similarly, detonators must be placed on any line(s) crossing the blocked line.

(d) A red banner flag by day, and after sunset or during fog or falling snow, a red light which must show along the line in both directions, must also be placed between the rails on the blocked line, at each set of detonators.

2.1.4 When the line has been protected, the Person in charge of the Possession must obtain an assurance from the Signalman that all signals controlling movements on to and across the blocked line will be kept at Danger and that reminder appliances have been used as appropriate.

2.1.5 The Signalman will then make and sign the prescribed entry in the Train Register, which the Person in Charge of the Possession must countersign.

Where, however, owing to the distance involved it is impracticable for the Person in charge of the Possession to go to the signal box, the Train Register entry need not be countersigned, but the Person in charge of the Possession must reach a clear understanding with the signalman by telephone or other speaking equipment and give his name and department, the place from where he is speaking and the time.

2.1.6 The Person in charge of the Possession must not allow work to commence until the necessary protection has been provided and the Signalman has granted the possession, after which he may authorise each Engineering Supervisor to start work.

2.3 Termination of the Possession.

2.3.1. When possession of the line is no longer required, and the Person in charge of the Possession is satisfied that the line is clear of all obstruction including Engineer's trains and "On track" equipment and is safe to run upon, (written certificates having been obtained from the Engineering Supervisor in charge of work, where applicable), also that any person(s) remaining on or in the vicinity of the line has been advised that traffic working is to be resumed, he must advise the Signalman at the signal box where possession was obtained. The Person in charge of the Possession must also arrange for the detonators and red banner flag/red lamp to be removed except when Single Line Working remains in operation. In such circumstances, the detonators and red banner flag/red lamp must be left in position and the Responsible Officer in charge of Single Line Working must be advised that the possession has been given up.

2.3.2 The Signalman will make and sign the prescribed entry in the Train Register, which the Person in charge of the Possession must countersign.

Where, owing to the distance involved, it is impracticable for the Person in charge of the Possession to go to the signal box, the Train Register entry need not be countersigned, but the Person in charge of the Possession must reach a clear understanding with the Signalman by telephone or other speaking equipment and give his name and department, the place from where he is speaking and the time.

3-Duties of Engineer Supervisors in Charge of Work

3.1 Before commencing work

Where the Engineering Supervisor in charge of work is not the Person in Charge of the Possession, he must obtain the permission of the Person in charge of the Possession together with an assurance that the necessary protection has been provided, before allowing the work to commence.

3.3 Completion of work

When the work is completed, and, so far as he is concerned, the line is clear and safe for trains to run upon, the Engineering Supervisor must give a written certificate to this effect to the Person in charge of the Possession. Where, however, owing to the distance involved advantage would be gained, the Engineering Supervisor may telephone the assurance to the Person in charge of the Possession that the work is complete and the line is clear but in all such cases the written certificate must be endorsed with the time of the telephone advice and the certificate MUST be delivered to the Person in Charge of the Possession as soon as possible thereafter. (See specimen form appended.)

4-Duties of Signalmen

4.1 Arranging for the Possession

4.1.1 The Person in charge of the Possession will arrange with the Signalman controlling the signal(s) leading to the line which is to be blocked, the actual time at which the possession can be granted.

Before authorising the possession the Signalman must:-

- (a) arrange for all signals controlling movements on to or across the blocked line to be placed at Danger, and must place reminder appliances on the appropriate levers/switches/push buttons, including those applicable to the release of any ground frame which gives access to the blocked line,
- (b) arrange for the signal in advance of the possession to be placed and maintained at Danger,

- (c) advise any other Signalman and/or Crossing Keepers concerned,
- (d) on lines worked under the Absolute Block System—when Single Line Working is not in operation, request the Signalman at the signal box in advance to place the block indicator for the line concerned to the Train on line position,
- (e) where the possession covers two or more block sections—obtain an assurance from the Signalman at the intermediate box(es) that the blocked line will be protected as necessary.

4.1.2 When the Signalman is in a position to grant the possession he must make and sign an entry in the Train Register, as follows:---

(Down) (Up)...... line from detonators placed at, to detonators placed on approach side of signal has been taken possession of by (Person in charge of Possession) at hours.

This entry will be countersigned by the Person in charge of the Possession. Where, owing to the distance involved, it is impracticable for the Person in charge of the Possession to come to the signal box to countersign the entry, he will reach a clear understanding with the Signalman by telephone or other speaking equipment and give his name and department, the place from where he is speaking and the time. The Signalman must endorse the entry accordingly.

4.1.3 When the entry has been made in the Train Register, the Signalman must advise the Person in charge of the Possession that work may commence.

4.3 During the Possession

4.3.1 Signals maintained at Danger

The Signalmen concerned must maintain the signals leading to the blocked line at Danger until advice is received from the Person in charge of the Possession that the possession has been given up, that any ballast train(s) or "On track" equipment has been cleared from the line and that the line is again clear and safe for the passage of trains.

4.3.2 Acceptance of trains

On lines worked other than on the Track Circuit Block System, when it has not been possible to position the detonators at least $\frac{1}{2}$ mile ahead of the outermost home signal at the signal box in rear, the Signalman there may accept trains in accordance with Block Regulation 5. The Signalman receiving the 3-5-5 bell signal must advise Drivers of the circumstances ahead.

4.4 Termination of the Possession

4.4.1 When possession of the line is no longer required and the line is clear of all obstructions and is safe to run upon, the Person in charge of the Possession will advise the Signalman at the signal box where possession was taken. The Signalman must make and sign an entry in the Train Register as follows:---

(Down) (Up) line from detonators placed at to detonators placed on approach side of signal clear and safe to run on. Possession given up by (Person in charge of the Possession) at hours.

This entry will be countersigned by the Person in charge of the Possession. Where, owing to the distance involved, it is impracticable for the Person in charge of the Possession to come to the signal box to countersign the entry, he will reach a clear understanding with the Signalman by telephone or other speaking equipment and give his name and department, the place from where he is speaking and the time. The Signalman must endorse the entry accordingly.

