



DEPARTMENT OF TRANSPORT

# **RAILWAY ACCIDENT**

**Report on the Collision that  
occurred on 25th February 1979  
between Hilsea and Fratton**

IN THE  
SOUTHERN REGION  
BRITISH RAILWAYS

LONDON: HER MAJESTY'S STATIONERY OFFICE

£2.70 net

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RAILWAY INSPECTORATE,  
DEPARTMENT OF TRANSPORT,  
2 MARSHAM STREET,  
LONDON, SW1.  
8th August 1980.

SIR,

I have the honour to report for the information of the Minister, in accordance with the Order dated 2nd March 1979, the result of my Inquiry into the collision between a passenger train and an Engineers' rail mounted crane that occurred on 25th February 1979 between Hilsea and Fratton in the Southern Region of British Railways.

During the night of Saturday/Sunday, 24th/25th February 1979, the Up and Down lines of the railway between Fratton and Havant, and between Havant and Rowlands Castle, were to be blocked for pre-planned engineering work. At approximately 02.03 on the Sunday morning the 01.35 diesel locomotive hauled passenger train from Eastleigh to Portsmouth, travelling at speed under clear signals on the Down line, collided with the tail of a 30-ton crane which formed part of an Engineers' train working on the Up line at Portsea track parallelling hut, roughly half way between Hilsea and Fratton Stations. The collision caused extensive damage to the off side of the diesel locomotive and to two of the passenger coaches in the train. Police and ambulances were quickly on the scene, but there was some delay in calling the Fire Brigade, whose services were required to free injured passengers from the damaged coaches. I regret to report that a guard, travelling in the front cab of the locomotive, received fatal injuries. In addition, 5 passengers and 4 railway-men were taken to hospital; all but two were discharged after treatment and the two passengers who were detained were sufficiently recovered to leave hospital on 27th February and 6th March respectively.

At the time of the accident the Up line was in the Engineers' possession but the Down line was open for traffic. The fact that the crane was obstructing the Down line was due in part to the lack of a properly appointed person in charge of the work site and in part to various misunderstandings that had developed between key members of the staff concerned with the blocking of the line, some of whom lacked experience in this work.

It was dark at the time of the accident but weather conditions were fair.

#### DESCRIPTION

##### *The Line and Signalling*

1. The Main line from London (Waterloo) to Portsmouth joins the Brighton-Portsmouth line at Havant. From Havant the line runs roughly east to west for about 4 miles before turning south near Hilsea. Immediately to the north of Hilsea, at Portcreek Junction, the Main line is joined by the line from Eastleigh and Southampton. A chord line connects the Eastleigh line with the Main line, forming a triangle. Fratton Station is some 2½ miles beyond Hilsea, the line thereafter continuing through Portsmouth and Southsea to its terminus at Portsmouth Harbour. The accident happened opposite Portsea track parallelling hut, just under half way between Hilsea and Fratton. Between Hilsea and the scene of the accident the line is straight and on a gradient of 1 in 871 rising towards Portsmouth. All the lines mentioned consist of 2 tracks, Up and Down, and, except for the Eastleigh line and the chord line, all are electrified on the third rail system at 750 volts DC.

2. Signalling on all the lines concerned is in accordance with the track-circuit block system with multiple aspect colour-light signals. The controlling signal boxes are at Portsmouth and Havant, and at Petersfield on the London line.

3. The general layout of the lines and the position of the signals is shown on the diagram at the back of the report. The location of various electrical substations and track parallelling huts (hereafter referred to as TP huts) is also shown.

##### *The Trains*

4. The passenger train was 2T01, the 01.35 Eastleigh to Portsmouth and Southsea. It was formed of diesel-electric locomotive 33 115 hauling 4-TC (Class 491) multiple-unit No. 414. The multiple-unit consisted of a Trailer Brake Second and a Trailer First between two Driving Trailer Saloon Seconds. All coaches were of

modern design, introduced in 1966, and were gangwayed throughout. The total weight of the train was 209 tons. Its length overall was 216 ft.

5. The Engineers' train was 6Z70, the 23.25 Fratton Yard to Havant. It was formed, in direction of travel, of diesel-electric locomotive 31 421, 3 open wagons, a 50-ton bogie crane wagon with a light Atlas hydraulic crane mounted on it, an open wagon, a 22-ton tube wagon, a 30-ton rail-mounted diesel-hydraulic crane, a crane match wagon, and a mess and brake coach. Its length overall was 354 ft. Apart from the locomotive, the train is of fixed formation and is used throughout the Southern Region by the Chief Mechanical and Electrical Engineer's Department. It is based at Horsham where heavy electrical equipment for renewal and new works is received. The train is used to load this equipment to rail, to unload it at substations and TP huts, and to load displaced equipment. To permit quick handling on site, the equipment is normally containerised and the two cranes allow material to be loaded to or unloaded from the train itself, making it unnecessary to have another material train on the adjacent line. The 30-ton crane has a tail radius of 14 ft and will, therefore, foul any adjoining line when slewed. The Atlas crane has no tail overhang although its jib could foul an adjacent line.

#### *The Course of the Accident and Damage Caused*

6. Having negotiated Portcreek Junction, the passenger train was accelerated up to about 60 mile/h under clear signals. Its driver saw the Engineers' train on the Up line and lights held by men on the ground but saw nothing of the crane obstructing his path. The approach of the train had been seen at the last minute by the men operating the crane who had attempted to swing it clear but without success. The impact ripped open the front and off-side of the locomotive over about half its length with consequential heavy damage to the bodywork and to interior equipment. After the initial impact with the locomotive the crane must have swung away because damage to the leading coach in the train was limited to minor exterior scoring, some broken windows and minor interior damage. It then swung back and struck the second coach a violent blow about a third of the way along, ripping out the entire side over half the coach length and causing extensive damage to the interior. The crane continued to oscillate and damage to the third coach was concentrated at its leading end and towards the rear, where the side was ripped open or stove in with consequential heavy damage to the interior. The last coach was much less badly damaged, the leading end being pushed in and the body side being generally grazed and dented, with minor damage only to the interior. Of the four coaches, the Driving Trailers at each end had centre gangways whilst the two middle coaches had corridors. The second coach was struck on its compartment side and the third on its corridor side.

7. The 30-ton crane was badly damaged, with severe damage to the body work and engine compartment, the engine and radiator being smashed, and the torque convertor output gear box and drive shaft coupling broken. There was no damage to other vehicles in the Engineers' train and none to track and line-side equipment.

#### *Rules and Regulations*

8. The rules dealing with protection of the line during engineering work are contained in Section T of the British Railways Rule Book. The section is divided into five parts of which Part III—Protection of Engineering Works when the Engineer takes "Absolute Possession" of the Line, and Part IV—Protection of Trains Running on Lines which may be fouled by Cranes or other Mechanical Equipment, are the ones directly relevant. Since even these parts are somewhat lengthy, they will not be reproduced in their entirety in the report but extracts will be given or paragraphs quoted where necessary.

### EVIDENCE

#### *As to the Collision*

9. Driver F. T. Penfold and Guard G. A. Mann were the driver and guard of the 01.35 Eastleigh to Portsmouth train. At Eastleigh they were joined on the platform by Guard W. J. Batchelor, who was returning to Fratton after completing other duties. Before the train left, Batchelor got into the driving cab and sat in the Assistant's seat, on the off-side. The Rules (specifically Rule B.5.12) prohibit persons, other than staff in the course of their duty, from travelling in driving cabs unless specially authorised. Since Batchelor's duty did not require him to enter the driving cab, he should not have been allowed to do so. Driver Penfold knew the rules, but raised no objection when Batchelor entered the cab.

10. The journey from Eastleigh as far as Hilsea was uneventful. Once clear of Portcreek Junction, Penfold increased speed to about 60 mile/h. He knew that engineering work was programmed in the area and approaching Portsea he noticed the lights of men working on the Up side of the line and the headcode of a locomotive standing on the Up line. He sounded the horn and shut the controller and Batchelor asked what was going on. Penfold had just replied to the effect that the engineers were at work when, without any

warning, there was a tremendous crash. He looked to his right and saw that the whole side of the cab had been torn open and that Batchelor was no longer there. The train brakes came on automatically and the train stopped. It was not derailed. Penfold left the cab in a shocked condition.

11. When the train left Eastleigh there were about 20 passengers on board but roughly half of them left the train at Fareham. Of the remainder, 2 were in the front coach, 2 in the second coach, and 6 in the last coach. After the accident, Guard Mann telephoned to Portsmouth Signal Box from a signal post telephone, reported the accident and asked for the traction current to be removed. At this stage he was joined by the driver's assistant and guard of the Engineers' train who said they would protect the train. He returned to his train and assisted the passengers until the emergency services arrived.

*As to the Arrangements for the Engineers' Possession of the Lines*

12. Mr. B. C. Brazier, an Engineering Assistant in the Chief Mechanical and Electrical Engineer's Department at Croydon, was responsible for planning, resources, and possessions in connection with new works carried out by the Department. He had been concerned with this kind of work for the past 10 years. He explained that the planning process was based on a quarterly programme for which he submitted details of the Department's train and possession requirements and reached agreement with the Operating and Civil Engineering departments on this and on the required extent of current isolations. Once agreement had been reached the necessary forms were completed so that details of the possessions and material train movements could be issued by the Divisional Manager's office as printed Notices. His office would also confirm to the local Area Civil Engineer or Permanent Way Supervisor that the work was to be undertaken, this being normally done at least 8 weeks before the planned date of the work.

13. He was present at meetings, held on 28th September and 12th October 1978, at which details of the possessions for the first quarter of 1979 were agreed. These included two separate possessions, each involving both Up and Down lines, on the night of 24th/25th February 1979 for work by the CM and EE's Department; one between Rowlands Castle and Havant and the other between Havant and Farlington Junction. The work envisaged was the loading of equipment at Bedhampton TP hut and its subsequent unloading at Durrants TP hut.

14. Towards the end of January 1979 a combination of bad weather and industrial action forced a change in plan and the planned possessions were altered to allow for equipment to be moved between Portsca and Bedhampton TP huts. The possession between Rowlands Castle and Havant was cancelled and that between Havant and Farlington Junction extended to Fratton. Details of this amended possession were given in the printed Special Notice P/EW8, SWD 1979, issued on 21st February 1979. Subsequently, a reconnaissance indicated that the superelevation of the track at Bedhampton would preclude the unloading of the intended equipment there and it was decided to move the equipment from Portsca to Durrants; this meant that possession of the lines between Rowlands Castle and Havant was once again necessary. On 20th February, Mr. Brazier's clerk telephoned the Area Civil Engineer at Fratton and asked whether the Fratton-Havant possession could be extended to Petersfield. The answer was affirmative and a stencilled supplement, No. 30/6/7-8 SWD, was issued by the Divisional Manager's office on 22nd February 1979, that is two days before the weekend concerned. Mr. Brazier agreed that such a long possession, over 17½ miles, was unusual but did not think that any special difficulty had been foreseen at the time.

15. Regarding the planned loading and unloading of equipment, Mr. Brazier confirmed that it was envisaged from the outset that this would involve the use of both the Atlas and the 30-ton cranes. He agreed that this would require absolute possession of the Up and Down lines, unless the work was being done under Section T, Part IV of the Rule Book with an Operating Department Supervisor in attendance. As planned, both lines were to be in the Engineers' possession when the cranes were in use and the question of an Operating Department Supervisor did not, therefore, arise.

16. In detailing the arrangements for the protection of engineering works, Section T, Part III of the Rule Book refers to "the pre-planning meeting". Mr. Brazier said that when possessions involved work by the CM and EE's Department alone he would not expect such a meeting to be held and none was arranged for the possession on 24th/25th February.

17. Rule TIII, Clause 11, details the duties of Engineering Supervisors in charge of work. Clause 11.1, headed "Before commencing work" reads, "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". Mr. Brazier said that in the case of the Horsham-based fixed-formation CM and EE's train it had been the normal practice for a member of the Chief Civil Engineer's Department to travel with the train and to act as the Engineering Supervisor in the terms of Rule TIII.11.1. The senior CM and EE's Department



Supervisor on the train was the Crane Supervisor who had specific responsibilities for the safe working of the cranes. Mr. Brazier considered that these duties precluded this Supervisor from acting as the Engineering Supervisor in charge of work. In the event of the CCE's Department not providing an Engineering Supervisor, Mr. Brazier did not consider that the Crane Supervisor would, or should, assume the extra responsibilities involved and indeed considered that, if the Crane Supervisor was aware that no CCE's Supervisor was present, he should cancel the job. He agreed that, since the accident, it had become apparent that on previous occasions in the Portsmouth Area no CCE's Engineering Supervisor had been present when the Horsham train was working and that this had left something of a vacuum in the supervision as envisaged in the rules.

18. Accompanying the train on the night of the accident was a Senior Technical Officer from the CM and EE's Department. Mr. Brazier said that his role was to advise the staff who were handling the equipment and to see that the correct equipment was placed or recovered. He did not consider that it was the STO's job to concern himself with either the movement of the train or its protection or the taking of possessions. He would, however, have expected the STO to be familiar with the rules and, like the Crane Supervisor, to have cancelled the work if he had been aware that no CCE's Engineering Supervisor was present.

19. The other person normally provided by the CCE's Department when the Horsham train was working under possession was an Electric Track Maintenance (ETM) man whose job was to arrange for the isolation and restoration of the electric traction current as required for the possession. Mr. Brazier had known in advance that the CCE's Department would not be able to provide an ETM man for the night of 24th/25th February and he had agreed to a local CM and EE's man, a cable jointer, being appointed to do this job. Mr. Brazier was not, however, aware that the CCE's Department would not be providing an Engineering Supervisor. Had he known, he would not have expected the cable jointer to act in this capacity as well as being the ETM man and he would have cancelled the work.

20. Mr. Brazier agreed that the Rule Book distinguished between the Person in charge of the Possession (PICOP) and the Engineering Supervisor in charge of work. When the Horsham train was working he thought that it had been quite common for the PICOP to be stationed at the site of the work. When this was the case, he felt that there was no need to have an appointed supervisor in charge of work.

21. As regards the distribution of Engineering Works Notices to those employed with the Horsham train, Mr. Brazier said that they were routed through his office. The stencilled supplement, No. 30, giving the revised details of the possession had arrived in his office at about 16.00 on Friday, 23rd February.

22. *Mr. J. S. Barnes*, as the Area Civil Engineering Assistant in the Fratton Area Office, had been concerned before with arrangements for CM and EE work in the area, including work carried out by the Horsham-based train. He had seen from the Quarterly Programme that the train would be working in his area during the weekend of 24th/25th February and on 12th February he received details of the required possessions of the line in a letter from the CM and EE's Department. On 20th February he was asked by Mr Brazier's clerk whether the possession could be extended to cover Durrants TP hut. He discussed the manning implications of such an extension with the Permanent Way Supervisor concerned and, after checking with the Divisional Office that the necessary supplement to the printed notices could be issued in time, he agreed to the extension. The amending supplement, No. 30, reached him on Friday, 23rd February. During his telephone conversation with Mr. Brazier's clerk he had understood that the 30-ton crane would not be used between Fratton and Havant.

23. In arranging possessions for the CM and EE's Department, Mr. Barnes said that his department provided the PICOP, the necessary staff to block the lines at the limits of the possession, and usually the ETM man to organise the current isolation. The appointment of men to these various tasks was normally left to the Permanent Way Supervisor concerned. To the best of his knowledge his department had never provided a man to act as Engineering Supervisor in charge of work being done by the CM and EE's Department. Nor, in his experience, was it the practice to have a CM and EE representative at pre-planning meetings when detailed arrangements were made for possessions.

24. After agreeing to the extension of the possession for the night of 24th/25th February Mr. Barnes had discussed the work with his Permanent Way Supervisor, Mr Stedman. Civil engineering work was also programmed for this night in the Liphook/Liss area, and the area staff were going to be stretched to the limit. With what he knew of the CM and EE's work he agreed with Mr. Stedman that the PICOP should be stationed at Havant Signal Box, where he would be better placed to control the work at Durrants. This decision was influenced by the fact that he expected the 30-ton crane to be used at Durrants but not at Portsca.

25. Mr. Barnes said that it was quite normal for possessions to be given up and re-imposed to allow non-works trains to pass, especially on the section of line between Portsmouth and Portcreek Junction.

The notices issued for 24th/25th February required the Down line possession to be given up and current restored for the passage of 6 trains and the Up line possession to be similarly given up for 3 trains. He considered that the passage of so many trains made the possession almost unworkable, but said that it was the kind of situation they had to accept. He agreed that such a complicated programme placed a heavy burden on the PICOP, especially one located at Havant Signal Box rather than at Portsmouth.

26. The Permanent Way Supervisor responsible for the lines between Portsmouth Harbour, Liphook, Warblington, and Cosham, *Mr. S. E. Stedman*, made the detailed arrangements for the possession. He had raised no objection to the extension of the original possession although he had commented to Mr. Barnes at the time that it made the possession a very long one. His understanding was that the CM and EE's train would make only a short stop at Portsea, loading one or two boxes with the Atlas crane and that most of the work would be done at Durrants. On this understanding he decided that the PICOP should control the possession from Havant Signal Box rather than from Portsmouth. To cover the job, he appointed Track Chameleon Perry as PICOP and three men to place lamps and detonators at the limits of the possession. He made no arrangement for any member of his staff to accompany the CM and EE's train; as on previous occasions, he assumed that the CM and EE Supervisor on the train would act as the Engineering Supervisor on site.

27. At the time he appointed Track Chameleon Perry to act as PICOP, Mr. Stedman thought that Perry had attended a course of training in PICOP duties. After the accident he discovered that this was not so, although Perry had attended a Rules course following the introduction of the revised Rule Book in 1972. He was, however, aware that Perry had not previously acted as PICOP, although he was a reliable Chameleon and had been involved in possession work in other capacities. In briefing Perry on his duties, Stedman told him that the works train would run from Fratton, would stay briefly at Portsea to load materials, using the Atlas crane, and would then move to Durrants. He reminded Perry that both lines would need to be under possession before work could begin on site. He also mentioned that a man from the CM and EE's Department, Anderson, would be arranging the traction current isolation and that he would need to have taken possession of the line, or lines, before authorising Anderson to isolate.

28. On Friday, 23rd February, Anderson came to see Mr. Stedman and asked him for guidance in his duties as ETM man. Stedman told him that Track Chameleon Perry would be at Havant Signal Box as PICOP and that he should keep in touch with him and get his permission before arranging for the current to be isolated. It was agreed that Anderson would travel from Fratton on the works train, although Stedman says that he made it clear that Anderson would not be responsible for the movement of the train. At the time he briefed Anderson, Stedman had not received his copy of Supplement 30. He nevertheless mentioned to Anderson that the possession would need to be given up at intervals throughout the night for the passage of trains and that he would need to keep in touch with the PICOP over this. The question of communications was not discussed in any detail, although it was understood that, when Anderson was at Portsea, his contact with the PICOP would have to be via the Portsmouth signalmen.

#### *As to Events on the Night of the Accident*

29. On Thursday, 22nd February, *Track Chameleon F. A. Perry* was told that he would be acting as PICOP for the weekend possession. He had not been trained in PICOP duties and he had not previously acted as a PICOP; his knowledge of what was involved came from his reading of the Rule Book. On Saturday, 24th February, he reported to Havant Signal Box and identified himself to the signalmen as the PICOP; he was not wearing a PICOP armband and did not have one. He had a copy of the printed Special Notice giving details of the possession but not of Supplement No. 30. He telephoned the signalmen at Portsmouth and Petersfield to say that he was in position. Shortly before 23.30 Anderson, whom Perry knew was from the CM and EE's Department and would be arranging the traction current isolation, telephoned from Fratton Yard to say that the works train was not yet ready. Perry told him that it would be some time before the line would be clear for the train to leave Fratton. Some time later Anderson telephoned again and Perry told him that the line was still not clear. At 00.45 he telephoned a third time and this time Perry said that he thought the line was clear and that he would confirm this with the signalmen and take the possession. Anderson mentioned that they had got two cranes, one of which would obstruct the Down line if used and one which was "safe working", from which Perry understood that it would not obstruct the opposite line. Anderson said that they would be using the smaller crane at Portsea. Perry told Anderson that when the works train arrived at Portsea they were not under any circumstances to use the big crane because at that stage only the Up line would be under possession. Anderson also mentioned that when he arrived at Portsea he would arrange for the current to be taken off the Up line. Perry accepted this because he had been told by Mr. Stedman not to worry about the electrical isolations which would be handled entirely by Anderson. In the course of his telephone conversations with Anderson, Perry had gained the firm impression that Anderson was in charge of the works train.

30. Perry made arrangements to take possession of the Up line between Fratton and Petersfield and went personally to place the detonators and lamp at Signal KW 55 beyond Havant Junction. Soon afterwards he learned that a passenger train had been brought to a stand near Rowlands Castle as a result of a current isolation on the Down line. Having no direct communication with Anderson, Perry telephoned the Electrical Control Operator and asked him to find out what was happening. The Operator agreed to contact Anderson and Perry subsequently learned, through the Portsmouth signalman, that the Down line current had been restored and again isolated when the passenger train had reached Portsmouth. At this time he had not taken possession of the Down line and had received no request from Anderson or anyone else for possession to be taken. The electrical isolation of the Down line had been done without his knowledge.

31. At 01.45 the Havant signalman told Perry that the last Down train had passed and Perry immediately arranged to take possession of the Down line, going himself to put down the detonators and lamp clear of No. 24 points at Havant Junction. When he returned to the signal box he counter-signed the signalman's entry for the possession but did not read it. At the time he thought that he had agreed with the signalman to take possession of the Down line between Petersfield and Havant, in preparation for the work at Durrants. It was only after the accident that he learned that the signalman's entry recorded the possession as being from Petersfield to Fratton. At no time did he hear any conversation between the signalmen as to the status of the Down line between Havant and Fratton. He had not been consulted when the Eastleigh to Portsmouth train had been routed across the Up line possession at Portereck Junction, shortly before the accident.

32. *Signalman R. W. Fripp* was on duty in Havant Signal Box. He had qualified as a signalman in June 1978 and this was the first time that he had had a PICOP with him in the signal box although he had been involved on previous occasions with engineering possessions. He had received the printed Notice giving details of the weekend possessions and also Supplement 30. At about 22.50 Track Chargeman Perry arrived to take up his duties as PICOP. Before any possession was taken, Perry had a telephone conversation with someone at Fratton and asked this person whether the crane to be used would foul the Down line. From what he heard, Fripp gathered that there were two cranes, only one of which would foul the Down line. As soon as the last Up train had cleared Petersfield, Perry organised the possession of the Up line from Fratton to Petersfield. At about 01.15 Fripp received a telephone call from the Electrical Control asking whether any trains were in the Rowlands Castle area. He replied that there was a passenger train on the Down line and was then told that the Down line current had been isolated. He was surprised to hear this since Perry had said nothing about the Down line. The current was re-charged at 01.20. Soon after 01.45 he received a call from Portsmouth Signal Box to say that the Down line current had again been discharged. Perry then said "I am going to take possession of the Down road" and Fripp understood this to mean a possession from Petersfield right through to Fratton. He made the entry in the Train Register Book accordingly and Perry counter-signed it. Perry then telephoned the signalman at Petersfield and left the box. He did not say where he was going and Fripp only learned later that he had gone to place the detonators on the Down line clear of No. 24 points. Fripp could not recall any further telephone calls or events until he was informed by the Portsmouth signalman that there had been a collision at Hilsea and that Perry should go to the site.

33. Fripp agreed that there had been confusion between himself and Perry as to the extent of the possession on the Down line. He had believed that Perry had taken possession all the way from Petersfield to Fratton, and only learned later that the possession extended from Petersfield to Havant only. He had overheard Perry's various telephone conversations with Anderson before the train left Fratton Yard. On at least two of these occasions Perry had said that he was going to take the block and allow the train into the block but that they were to use the small crane only and under no circumstances to foul the Down line.

34. *Relief Signalman H. S. Martin* and *Signalman J. R. Edmunds* were on duty in Portsmouth Signal Box. From about 01.30 until the accident occurred, Edmunds was taking his meal break and Martin was working the panel on his own. They had details of the night's possessions, including Supplement 30, and they knew of Mr. Perry's appointment as PICOP. At 00.50 Perry telephoned from Havant to say that he was ready to take possession of the Up line and requested an absolute possession from Signal PW 35 at Fratton to Signal PW 47 on the Cosham branch and Signal KW 55 on the Brighton line. Martin told him that the last Up train had passed and that he could take the possession. He then telephoned the handsignalman at Signals PW 35 and PW 47 and told them to block the line, which they did and confirmed by telephone that they had done so. At 01.02 Martin received a call from Fratton Yard to say that the works train was ready to leave. The person telephoning did not identify himself in any way and Martin assumed that he was either the person in charge of the train or at least someone connected with its work. Martin told him that the train would be going on to the Up line which was under Engineers' possession and that under no circumstances was the Down line to be obstructed since trains would still be passing. The caller replied that the Down line would not be fouled since they would only be using a small crane which would not affect the adjacent line. Martin accepted this without further question.



35. When the train entered the possession the signalmen did not know exactly where it would be working, but they observed from the diagram that it had stopped in the Portsea area. Almost at once, at 01.15, the Havant signalman (Fripp) telephoned to say that the traction current had been discharged from the Down line and that the train due to depart from Liss at 01.04 was trapped near Rowlands Castle. Martin tried, without success, to contact the works train via the signal post telephones in the Portsea area but Fripp then telephoned again to say that the current had been restored. Shortly afterwards the 01.04 train came onto the diagram and passed Fratton on its way to Portsmouth. At this stage someone—Martin thought the same person who had spoken to him from Fratton Yard—telephoned from Portsea and said that he would be taking the current off the Down line again. He did not specify the limits of the isolation, nor say why he needed one. Martin knew that the last booked electric train had passed over the Down line and raised no objection. Some time later, with the works train still at Portsea, the 01.35 diesel-hauled train from Eastleigh came on to the diagram, running on time, and Martin cleared the Down line signals for it from Cosham right through to Portsmouth. He took no steps to contact the PICOP before doing this, even though the train would have to cross the Up line, which was in the Engineers' possession. At 02.05 he received a frantic telephone call from Signal PWB 454 to say that an accident had occurred. Martin alerted the Station Inspector and five minutes later the guard of the Eastleigh train telephoned to say that his train had struck a crane and that the emergency services were needed.

36. Signalman Edmunds confirmed Martin's evidence for the time when they were together. He had also spoken to the unnamed caller from Fratton Yard before the works train left and he also had emphasised that the Down line should not be obstructed in any way. Both signalmen insisted that at no time had they said to anyone that the last train, or the last electric train, had passed on the Down line.

37. *Mr. E. Mitchell* was the Electrical Control Operator on duty at the Havant Electrical Control Room. He had received the Traffic Notices giving details of the Engineers' possessions, including Supplement 30, and also a copy of the CM and EE's docket giving details of the electrical isolations. At 01.15 he received a call from Jinter Anderson at Portsea TP hut. He knew Anderson's voice and had often spoken to him on the telephone. Anderson said "Can I have the switches now?". This was not the correct way to request an electrical isolation so Mitchell asked him to be specific. Anderson said that he wanted to open the switches at Portsea TP hut. Opening the switches was not essential to effect the isolation since it could be done by opening the circuit breakers so Mitchell asked Anderson whether he wanted to take full possession of both roads. He had used the words "take full possession of" meaning simply the electrical possession. In over 30 years on the railway, he had always regarded the circuit breakers as "in his possession" until someone wanted an electrical isolation, when they would "take possession" of them from him. He realised that other departments took the word 'possession' to mean other things, but he had never known any confusion to arise. He asked Anderson whether traffic was clear and Anderson replied that it was, so Mitchell operated the breakers and electrically isolated both Up and Down lines between Fratton and Finchdean.

38. Within a minute or so of making the isolation he noticed a momentary fault indication from the Havant sub-station which showed that a train had entered the isolated section. He telephoned Havant Signal Box and was told that an electric train was stranded on the Down line near Rowlands Castle. He telephoned Anderson and challenged him over his statement that traffic was clear. Anderson apologised and said he would "get men clear of the Down line". At 01.20 he telephoned to say that the line was clear and Mitchell re-charged the Down line. At 01.42 Anderson telephoned again from Portsea and requested re-isolation of the Down Line. Mitchell telephoned Portsmouth Signal Box to confirm that the Down electric train had arrived at Portsmouth and then isolated the Down line between Fratton and Finchdean. Before doing so he had spoken to Anderson and told him that "the last electric train had arrived at Portsmouth". During all this time he had had no contact with the PICOP and did not know who was acting as PICOP nor where he was located. Anderson had not said whether the Down line was or was not in the Engineers' possession when he requested the isolation; normally the line would be in the Engineers' possession before an electrical isolation was requested. At 02.05 someone, not Anderson, telephoned from Portsea TP hut to say that a train had collided with the crane and asking for the emergency services. Mitchell put out a 999 call at 02.06.

#### *Regarding the Working of the CM and EE's Department Train and the work at Portsea*

39. *Driver S. C. Braithwaite* drove the locomotive hauling the CM and EE's train. He had not previously worked this train. At Fratton Yard he was joined by Anderson who gave the clear impression that he was in charge of the train. Anderson made several telephone calls to Portsmouth Signal Box and when permission was given for them to enter the possession he rode in the front cab and indicated exactly where the train should stop at Portsea. On arrival, he told Braithwaite that he would arrange to have the traction current isolated and he went off to do this. Braithwaite was still in the cab, with the windows closed and the main engine running, when shortly after 02.00 the Eastleigh train passed on the Down line. He did not hear a horn being sounded.

40. *Mr. A. J. Rayfield*, a Senior Technical Officer in the CM and EE's New Works Department, was concerned with the work at Portsea and Durrants. He had been briefed by Mr. Brazier and had visited the sites on Friday, 23rd February, to see what was involved. His responsibilities, as he saw them, were to ensure that the correct items of equipment were collected from or delivered to the correct sites and that the equipment was not damaged during handling. He was also required to record the composition of the train and to list, by name and department or section, those working at the site and to submit the list in due course to Mr. Brazier. He did not consider that he had any responsibility for the working of the train or for the taking of possessions. On the night in question he did not have copies of the special Notices, nor did he know who was acting as PICOP or where he was located.

41. On the Saturday night Mr. Rayfield joined the train at Fratton Yard. Anderson was making telephone calls to the signal box to arrange the train's departure and eventually the train left, with Anderson and two members of the crane crew on board. The two Crane Supervisors were making their own way to Portsea. Rayfield travelled in the Mess coach. On arrival at Portsea everyone gathered round the TP hut to agree on what was to be done. Those present included the Crane Supervisors, the slingers, and Anderson. Rayfield could not remember in any detail what was discussed, but he was sure that it was clearly understood by all those present that the work would involve the use of both the cranes; at no time was it suggested that the work might be done using only the Atlas crane. He did not think that the question of possession of the lines, or the electrical isolation, was discussed as such, although he thought it was understood that the work would need both lines to be in the Engineers' possession.

42. Shortly after the discussion, Anderson went to the telephone and Rayfield then saw him apply test lamps to the Up and Down line conductor rails, showing that the current was discharged. He had not overheard Anderson's conversation and did not know what he had arranged. Soon afterwards he gathered that a train had been stranded and that the Down line current would have to be restored. At this stage no work had started. After the current had been restored, an electric train passed on the Down line and sometime later Anderson replaced the test lamps on the Down line, proving that the current was once again discharged. Anderson then indicated that he was going to telephone from a signal post telephone and before he left Rayfield heard one of the two Crane Supervisors, he could not be sure which, ask Anderson to make sure that the last train had passed on the Down line and that they "had the block". After Anderson had gone, the Supervisor asked him if he would follow Anderson and make sure that the last train had indeed gone and that the Down line was blocked. Rayfield followed Anderson and met him returning from the signal. He said to him "Was that definitely the last train, and do we now have the block?". Anderson replied "Yes". They both returned to the train where the crane operators tried, unsuccessfully, to start the Atlas crane. This crane was to be used to unload a circuit breaker case from the train, a job which could not be done by the 30-ton crane. This part of the job was, therefore, abandoned and the 30-ton crane was started up and moved with its counter-weight foul of the Down line preparatory to lifting two large containers from the line-side on to the train. Suddenly someone shouted "There's a train coming" and frantic efforts were made to release the load and slew the crane, but to no avail.

43. Mr. Rayfield claimed to be generally familiar with Section T of the Rule Book. When asked whom he considered to have been the Engineering Supervisor, in the terms of Section T, he said that he could not really identify any person as filling that role; he might have expected the Senior Crane Supervisor to act in this capacity, although in many ways Anderson seemed to be doing the job. Regarding his questions to Anderson about the last train and the block, he did not think that a misunderstanding had arisen and that Anderson was merely confirming that the Down line current had been discharged. He had not known at the time that Anderson should only have been concerned with the electrical isolations.

44. *Workshop Supervisor R. C. Alldis* was the CM and EE Department Supervisor in charge of the cranes. He had been responsible for crane supervision for over three years and had worked on many jobs similar to those planned for the weekend of 24th/25th February. On the Saturday night he arrived at Portsea TP hut before the train. When it arrived he called out "Where is the P. Way man?", meaning the person in charge of the possession, and someone replied "Here I am". This was Mr. Anderson. After some conversation, Anderson went to arrange for the current to be discharged from the Down line (the Up line being already discharged) but returned to say that he would have to wait for about five minutes. Soon afterwards Anderson called out that the current was now off and Alldis asked him whether they could start work. Anderson replied "Yes", so Alldis gave orders for the Atlas crane to be started up. There was difficulty in doing this, and after a few minutes Anderson came up and said "I am very sorry, but I have got to reinstate the juice on the Down road because a train has been blocked in at Rowlands Castle". Alldis got his men on to the Up side of the line whilst Anderson went into the TP hut to telephone and five or ten minutes later an electric train went by on the Down line. After an interval, Anderson returned to the telephone and then confirmed that the Down line was again isolated. Test lamps were placed on both lines. Alldis then said to him "Will you go to the signal and ask if there are any more trains about and confirm that we have

the block". In asking this, he was assuming that Anderson was combining the duties of the PICOP and the ETM man. After Anderson had left, Alldis asked Mr. Rayfield if he would also go to the signal post telephone to make sure that both lines were in the Engineers' possession as well as electrically isolated. Anderson and Rayfield returned together and Anderson said "There are no more trains about and we have got the block".

45. As the Atlas crane would not start, the 30-ton crane was used to load a container, its counter-weight fouling the Down line whilst the container was being lifted. They had just started to lift a second container when someone shouted that a train was approaching. Alldis told the crane operator to lower the load so that the container could be unhooked. One sling was still attached when Alldis saw the train only yards away so he shouted to the operator to slew the crane round. The train then hit the counter-weight and Alldis jumped to the ground and, after checking that none of his men had been critically injured, telephoned for the emergency services. He then approached Anderson, who was in a state of shock, and asked him what had gone wrong. Anderson replied "I'm very sorry, mate, but they told me I had got the block".

46. Questioned about previous jobs done under possession, Mr. Alldis said that on arrival at a site it was his practice to identify "the P. Way man", who was either the PICOP or someone in touch with the PICOP if the latter was in the signal box. He would introduce himself as the Crane Supervisor and ask for the state of the line, both as to its possession and the electrical isolation, and would request permission to start work. This is what he had done on the night of the accident; he had assumed that Anderson was "the P. Way man", and nothing that Anderson had said or done had led him to suppose otherwise.

47. Mr. Alldis' colleagues, *Acting Workshop Assistant (Slinger) R. G. Martin* and *Slinger R. W. Alderton* supported his evidence. When the approaching train was sighted, Martin ran towards it waving a white light but had only gone a few yards when the train passed him. After the collision it was he who discovered the body of Guard Batchelor. Alderton was operating the 30-ton crane and he stayed at the controls, at considerable personal risk, until the moment of collision, trying to slew the crane clear of the line. A fourth member of the crew, *Slinger Lloyd*, remained on top of the container until the last moment, attempting to free the slings, and was then thrown off by the impact, fracturing both his wrists.

48. *Cable and Track Supervisor P. L. A. Sadler*, of the CM and EE's Department at Havant, was Jointer Anderson's immediate supervisor. He described Anderson as a very good worker, a good time-keeper and most conscientious although "perhaps not very bright". On the Thursday before the weekend possession he was asked if he could supply a man to take the current isolations and he asked Anderson if he would take this on. Anderson agreed. Sadler knew that Anderson had not previously acted as ETM man and he therefore arranged with the ETM Lineman at Havant Permanent Way Depot and with PW Supervisor Stedman for him to have some instruction in the duties involved. He did not himself give Anderson any instructions, except to tell him that he must liaise closely with the PICOP.

49. Mr. Sadler spoke to Anderson shortly after the accident. Anderson was in a state of shock and seemed to feel that he had been responsible in some way for the accident. He gave Mr. Sadler his account of the accident and insisted that at no time had he told anyone on site that the Down line was in the Engineers' possession or that it was safe to start work.

50. *Cable Jointer J. Anderson*, based at Havant, joined the railway in late 1965. On Thursday, 22nd February, he was asked by Mr. Sadler whether he was prepared to work on the Saturday night and "take the juice for a material train at Portsea and Durrants TP huts". He agreed to do so, but told Mr. Sadler that he had never done this work before. The next day, by arrangement, he went through the isolation docket with the ETM Lineman at Havant and, having done so, felt confident that he could do the job. He also saw PW Supervisor Stedman and asked him about the procedure once he had taken the current isolation. Mr. Stedman told him that the only person he should contact was the PICOP, Mr. Perry, who would be in Havant Signal Box. Section 'T' of the Rule Book was not discussed, and Anderson told me that he had no knowledge of this section of the Rule Book. He had seen the booklet 'Electrified Lines Working Instructions' but would not claim to be familiar with its contents.

51. On the Saturday night he went to the shunters' cabin in Fratton Yard and from there telephoned Perry at Havant to tell him that he was at Fratton waiting for the CM and EE's train to be made ready. He spoke to some of the men on the train and told them that he was there to take the electrical isolations. No-one appeared to be in charge, so Anderson assumed that he should arrange for the train to leave "in order to get on with the job". At about midnight he spoke again to Perry, who told him that the train could not leave as passenger trains were still running. He telephoned again at 00.30 and was told to wait a bit longer and to ring back in about 20 minutes. Just before 00.50 the Portsmouth signalman telephoned to say that the train could now leave. He passed on this information to Perry who said that it was alright for the train to proceed to Portsea. Perry added "Do not forget to tell the men that the crane will foul the Down

line". Anderson told Perry that on arrival at Portsea he would take the current and confirm he had done so. Perry agreed.

52. Anderson then got into the locomotive cab, told the driver that they had permission to proceed, and the train left. At Portsea, he showed the driver where to stop. There were people near the TP hut but no-one appeared to be in charge so he went into the hut, telephoned the Electrical Control Operator, and asked for the traction current to be isolated. The Operator checked the details on the docket and asked whether the isolation was required on both Up and Down lines; Anderson said that it was. A few minutes later the Operator confirmed that the current had been isolated on both lines. Anderson placed his test lamps on the conductor rails to confirm that the current was off and then told the men standing near the hut "The juice is off both roads". This was all that he said. Shortly afterwards the telephone rang and the Electrical Control Operator told Anderson that a passenger train was stranded on the Down line at Rowlands Castle and that the Down line current would have to be restored. Anderson warned the men, who were working on the cess side of the Up line, and the current was restored.

53. After a passenger train had passed on the Down line, Anderson waited several minutes for the train to clear Fratton and then telephoned the Electrical Control Operator and the latter said that he would contact Portsmouth Signal Box to make sure that the train was clear. Shortly afterwards he confirmed that the train had cleared Fratton and that the Down line current had again been isolated. Anderson tested the Down line conductor rail and then told the men that both lines were again isolated. As far as he could remember, his actual words were "The Down road is off". No-one asked him whether it was alright to start work or whether the Down line was in the Engineers' possession. Up to this point he had not attempted to contact Perry from the site; there was no direct telephone link between the TP hut and Havant Signal Box.

54. Anderson next went to the nearest signal gantry and telephoned the signalman at Portsmouth. He said "Jointer Anderson speaking—will you inform Mr. Perry that I have taken the juice on the Up and Down roads". When the signalman had acknowledged this, Anderson asked whether he should wait for a reply from Mr. Perry and the signalman said "No". He then returned to the TP hut, where the men were trying to start the small crane. They were having difficulty and eventually they started work with the big crane. Anderson waited for them to finish their work; he assumed that both lines were by then in the Engineers' possession. Suddenly, he saw a diesel train approaching and shouted "Down line", but it was too late and the locomotive hit the crane. Someone shouted "Get on to the signalman", and he ran to the signal gantry and telephoned the Portsmouth signalman. The latter told him that there was no block on the Down line. Soon afterwards the emergency services arrived and he was taken to hospital suffering from shock.

55. I told Anderson of the allegation by Mr. Rayfield that he, Rayfield, had followed him to the signal gantry and had asked him, after he had telephoned, whether the last train had passed and whether they had the block. Anderson could remember nothing of this conversation and reiterated that at no time had he told anyone that the lines were blocked. On further questioning, he said that he thought that at some stage he had spoken to someone on the train and said that they were not to foul the Down line. This would have been before the men started work with the big crane, because by then he had assumed that both lines were in the Engineers' possession, although he admitted that at the time he had no means of knowing whether this was the case or not.

## CONCLUSIONS

56. The immediate cause of the accident was the operation of the 30-ton crane on the Up line at Portsea whilst the adjacent Down line was still open to traffic. The crane was allowed to work in this dangerous manner because there was no competent Engineering Supervisor in charge of the work and, in the absence of such a person, serious misunderstandings arose between the various members of the staff on site.

57. A number of other factors contributed to the accident. These included the impractical nature of the engineering possession arranged for the night in question, the appointment of inexperienced and virtually untrained staff to carry out key duties in connection with the possession, and various failures on the part of the signalmen in Portsmouth Signal Box. In view of the relevance of these contributory factors to measures aimed at preventing a recurrence, they are analysed in the following section.

## FACTORS CONTRIBUTING TO THE ACCIDENT

58. The standing arrangements for planning and notifying engineering possessions for work by the CM and EE's Department are described by Mr. Brazier in his evidence (paragraph 12). His evidence also shows

that details of the two separate possessions planned in October 1978 for the weekend of 24th/25th February 1979 were first altered some three and a half weeks before the work was due to take place and that the two possessions were then combined into one very long possession only four days before the start of work. This latter alteration changed the whole nature of the possession and posed major problems of control and communication. It necessitated important amendments being made to the printed Notice already issued for the possessions and, with only four days available, it is not surprising that many of those concerned had not received the amendment by the time work started on 24th February. There were no doubt good reasons for the changes in the works programme, but it was unfortunate that the discovery that site conditions at Bedhampton precluded the planned work being carried out was made so late in the day. With hindsight, it is quite clear that the last-minute alterations to the possessions, as requested by Mr. Brazier and accepted by Mr. Barnes and Permanent Way Supervisor Stedman, were a major contributory factor to the accident.

59. Even had the two original possessions not been combined, they would have been difficult to apply and could only have been managed by experienced people—the PICOP, the signalmen, the ETM men, and the Engineering Supervisors on site—working as a team. The original printed Notice showed that, once absolute possession had been taken of the Up and Down lines, the Down line possession would have to be given up, and the electric current restored, for the passage of seven different trains and the Up line for three trains, all between 01.05 and 06.30. The amendment Notice called for much the same action, there being one fewer Down train. Even with experienced staff and good communications, I consider that the passage of so many trains through lines scheduled for the Engineer's possession made the proper carrying out of the work and the proper management of the possessions unacceptably difficult. With inexperienced staff and difficult communications, the plan was completely unworkable. The timing of the commencement of the possession, at 01.05, was also unrealistic. Had the Down line possession been taken at 01.05 as prescribed, it would have had to be given up again some three minutes later for the passage of the 01.04 ex Liss which was due at Petersfield, the start of the possession, at 01.08. The responsibility for accepting the last-minute alterations and issuing what was in effect an unworkable plan for the possessions must rest with the Divisional Headquarters.

60. Rule TIII.11.1, quoted in paragraph 17, makes it clear that "the Engineering Supervisor in charge of work" may also be the PICOP but that where the two jobs are *not* combined the Engineering Supervisor must obtain the PICOP's permission, and be given an assurance that the necessary protection has been provided, before allowing work to start. The evidence disclosed a remarkable disparity between the views of the CM and EE's and the CCE's representatives as to the responsibility for appointing the Engineering Supervisor. The CM and EE's staff were unanimous in thinking that the Civil Engineer provided this Supervisor, whilst the CCE's men insisted that, whilst they always provided the PICOP, the staff to physically block the lines, and usually the ETM man, they had never expressly appointed a man as Engineering Supervisor in the terms of the Rule Book when work was being carried out by the CM and EE's Department. Where, on previous occasions, the PICOP had been located at the work site there is little doubt that he had acted as the Engineering Supervisor and was accepted as such by both sides. There was, however, evidence that there had been other occasions when the PICOP was not at the site and where work by the CM and EE's staff had been carried out, as at Portsea, without a properly appointed Engineering Supervisor.

61. The appointment of Track Chorman Perry as the PICOP for such a difficult possession was unfair to Perry and a recipe for disaster. In doing so, I consider that Permanent Way Supervisor Stedman made an error of judgement. Perry had insufficient training and experience to realise that he was not going to be able to control the possession properly and that the proper course would have been to cancel the job, or not to have accepted his appointment in the first place. In the event he was unable to take firm control of the possession, he failed to reach a proper understanding with the signalmen and he failed to see the signs that would have alerted a more experienced man to the fact that things were going seriously wrong. In all this he was not helped by the fact that Signaller Fripp, at Havant, was also inexperienced in possession work; had Fripp been more experienced, he could have warned Perry that things were not going as they should.

62. By contrast, Signaller Martin at Portsmouth was an experienced signaller. Yet this proved of little help since his approach to the possession was casual to say the least. He failed to identify Anderson by name or function when Anderson telephoned from Fratton Yard; he failed to establish who was in charge of the train or the work site, or even the exact location of the work site; he accepted a possession of the Up line which gave no protection from the Fratton Yard exit on to the Up line or from Down trains from Cosham which had to cross the blocked line; he failed to challenge either of the electrical isolations of the Down line even though he knew that no possession had been taken of the Down line and that the Eastleigh to Portsmouth diesel train was due to pass over the Down line; and he allowed this train to enter the section in spite of the requirement of Supplement 30 (which he had received) that the current should be restored for



the passage of this train, and signalled it across the blocked Up line at Portcreek Junction without first obtaining the permission of the PICOP as required by Rule THH.10.2.5. By these various failures, Signaller Martin must bear a considerable share of the responsibility for the accident. He shares it partly with Signaller Edmunds, who also failed to establish Anderson's name or responsibilities and who failed to counter-sign the Train Register entries made by Martin, which in the event were not made out in accordance with Section THH of the Rule Book.

63. As in the case of Perry, the appointment of Cable Jointsman Anderson to act as ETM man was misguided. He was totally inexperienced in engineering possessions, knew nothing about Section T of the Rule Book, and little or nothing about the Electrified Lines Working Instructions. The instruction he received was barely adequate to enable him to carry out his basic ETM duties, even had other parts of the work been properly organised. In the event, he found himself in a situation where no-one seemed to be in charge, and he took on responsibilities which went far beyond those he had been instructed to undertake. In so doing, he unwittingly led the Crane Supervisor and others to believe that he was the "P. Way man" and therefore competent to give the necessary assurances that the lines were under possession and that work could safely commence. It is quite clear, and hardly surprising, that serious misunderstandings arose. After taking the second electrical isolation of the Down Line, Anderson gave various assurances—that "the Down line was off", or that there were no more trains about and that they had "got the block". In doing so, Anderson probably intended to say only that the Down line current was off, or he might have believed that, with the current off, no more trains would be coming, forgetting, or not knowing, about the diesel train. What is clear is that those on site accepted Anderson's assurances as meaning that both lines were under possession. Anderson was deeply shocked by the accident and felt himself largely responsible. In my view, he was in no way responsible for what happened. He was the victim of circumstances, having tried conscientiously to carry out duties which were frankly beyond his competence and which he should never have assumed in the first place but which, in the circumstances, he can hardly be blamed for assuming.

64. There was one moment during that night which was probably critical. This was when Anderson was returning from telephoning the Portsmouth signaller and was met by Mr. Rayfield. At this point, Anderson had made no enquiries concerning the possessions and had no means of knowing whether the lines were or were not under absolute possession, even assuming that he was clear in his own mind as to what precisely was meant by "absolute possession"; all he knew was that both lines were electrically isolated and that the last electric train had passed. Yet in passing on this information, both Rayfield and Supervisor Alldis gained the impression that both lines were under engineer's possession. The misunderstanding probably arose from the use of such terms as "the block", which might well have meant different things to Anderson and to the others. One matter I find regrettable is that Mr. Rayfield, a Senior Technical Officer, should have taken such little interest in the arrangements that were being made, or not made, for the possession. During the course of the Inquiry I learned that the training of technical officers such as Mr. Rayfield includes little or nothing on the taking of possessions and on the safety of the line generally, and that they are not encouraged to concern themselves with matters outside their direct technical role. I feel that this is wrong. As technical officers they will frequently be the senior person on site and I consider it essential that they know enough to enable them to intervene if things are going wrong. Had Mr. Rayfield been aware of the detailed provisions of Section T of the Rule Book and trained to keep an eye on matters that concerned the safety of the line, I feel sure that he would have realised that Anderson was not in full control of the situation and that no-one was exercising the function of an Engineering Supervisor.

65. Finally, it must be recorded that Guard Batchelor was in contravention of the Rules when he elected to travel in the cab, and that Driver Penfold was at fault in allowing him to do so.

#### REMARKS AND RECOMMENDATIONS

66. In the days following the accident, Southern Region took urgent action to put right some of the more serious failings that had come to light. I also had discussions with senior officers of the Operating and Technical Departments and the remarks that follow describe the action taken in respect of the various matters raised in paragraphs 56-65, as well as my recommendations for further action.

67. On the crucial question of the appointment of Engineering Supervisors, Southern Region are to issue instructions that, when possessions are exclusively for work by the CM and EE Department or when the CM and EE work is one amongst other engineering works being undertaken within a single possession, the CM and EE Department will nominate an individual who will be stationed at the site of work and who

will undertake the duties of Engineering Supervisor in the terms of Section THH of the Rule Book. Until the CM and EE Department has trained its Supervisors to do this work, and the necessary consultations with the staff have been concluded, the CCE Department are appointing individual members of their staff to act as Engineering Supervisors at CM and EE work sites. In the case of the Chief Signal and Telecommunications Engineer's Department, the Department already appoints its own Engineering Supervisors.

68. The procedures for requesting and arranging absolute possessions have also been re-examined and improved. Requests which, in the case of work by the CM and EE Department in the Fratton area, formerly went direct from the CM and EE Department to the Divisional HQ are now routed through the CCE Department, who thus have an early opportunity to comment on any special features of the possession. Regional HQ have also directed that possessions must be confined to the shortest possible length and not allowed to develop beyond manageable proportions, as happened at Hilsea. It has to be accepted that some last-minute alterations in the published details of possessions will be inevitable, but the number of such alterations is to be kept to a minimum. Towards this end, the lead-time for the arranging of possessions is to be reduced in the South Western Division to bring it into line with other Divisions, the expectation being that by reducing the time there will be a better chance of the plan remaining unchanged. In addition, guidelines were issued in August 1979 aimed at a significant reduction in the number of trains, other than works trains, that have to pass through possessions.

69. Another aspect that needed attention was the matter of pre-planning meetings. Southern Region has instructed that, whenever more than one Department is involved in a possession, a pre-planning meeting must be held, preferably at the proposed site of work, and attended, amongst others, by the appropriate Engineering Supervisor and the PICOP.

70. Southern Region has reaffirmed its policy that the Person in Charge of the possession (PICOP) shall be appointed by the CCE Department and has issued instructions that no person is to be appointed PICOP unless he has attended a course in PICOP duties. It has also been made clear that the PICOP is responsible for the isolation of traction current, a man being appointed, if necessary, to assist him in arranging the isolations.

71. As regards the various identified failings on the part of signalmen, I have received assurances from the responsible Regional Officers that there is no evidence that signalmen in general are failing to deal properly with engineering possessions.

72. In paragraph 64 I have suggested that Technical Officers should have a detailed knowledge of Section T of the Rule Book. I would go further and suggest that any Railway employee who is, or may be, concerned with work on or near the line should have a proper working knowledge of those parts of the Rule Book that are concerned with the safety of the line. I recommend that the Railways Board examines its policy on this matter.

73. The Inquiry brought to light the fact that different departments used technical expressions that can mean different things to different people. The CM and EE's Electrical Control Operator at Havant, for example, used the phrase "take full possession of" when speaking of an electrical isolation, whereas to a member of the CCE Department the word "possession", unless qualified in some way, would automatically be associated with an engineering possession of the line. I found that this practice was something that had apparently grown up over the years, the use of the term "possession" for an electrical isolation having no formal recognition in any Instruction issued by the CM and EE. When the Electrical Control Operator is speaking to a man properly trained in ETM duties—and this will normally be the case—there is probably little risk of misunderstanding. Nevertheless, I consider it undesirable that such an important term as "possession" should have these differences in meaning, and I am glad to report that the CM and EE of Southern Region has drawn the attention of his staff to the possible dangers of using the word "possession" in the context of electrical isolations and has encouraged them to use the word "isolation" instead.

74. Finally, I have re-examined Section T, Part III of the Rule Book. I conclude that it provides clear instructions for the safe working of absolute possessions and that no radical changes are called for in either its content or wording. However, I feel that the accident at Hilsea has shown that there can be some risk of misunderstanding in that there is no specific call for the appointment of an Engineering Supervisor when only a single job is being carried out within a possession. I recommend that Clause 9.4 should be retitled "Appointment of Engineering Supervisor" and that it should deal with the eventuality of their being either one or a number of jobs being carried out under a single possession, making it clear that an Engineering

Supervisor must be appointed for each separate job. The Clause could also refer to the fact that, where appropriate, the duties of PICOP may be undertaken by an Engineering Supervisor employed by the Department principally involved with the work to be carried out.

I have the honour to be,

Sir,

Your obedient Servant,

C. F. ROSE

*Major*

The Permanent Secretary,  
Department of Transport.

ACCIDENT BETWEEN HILSEA AND FRATTON-25 FEBRUARY 1979

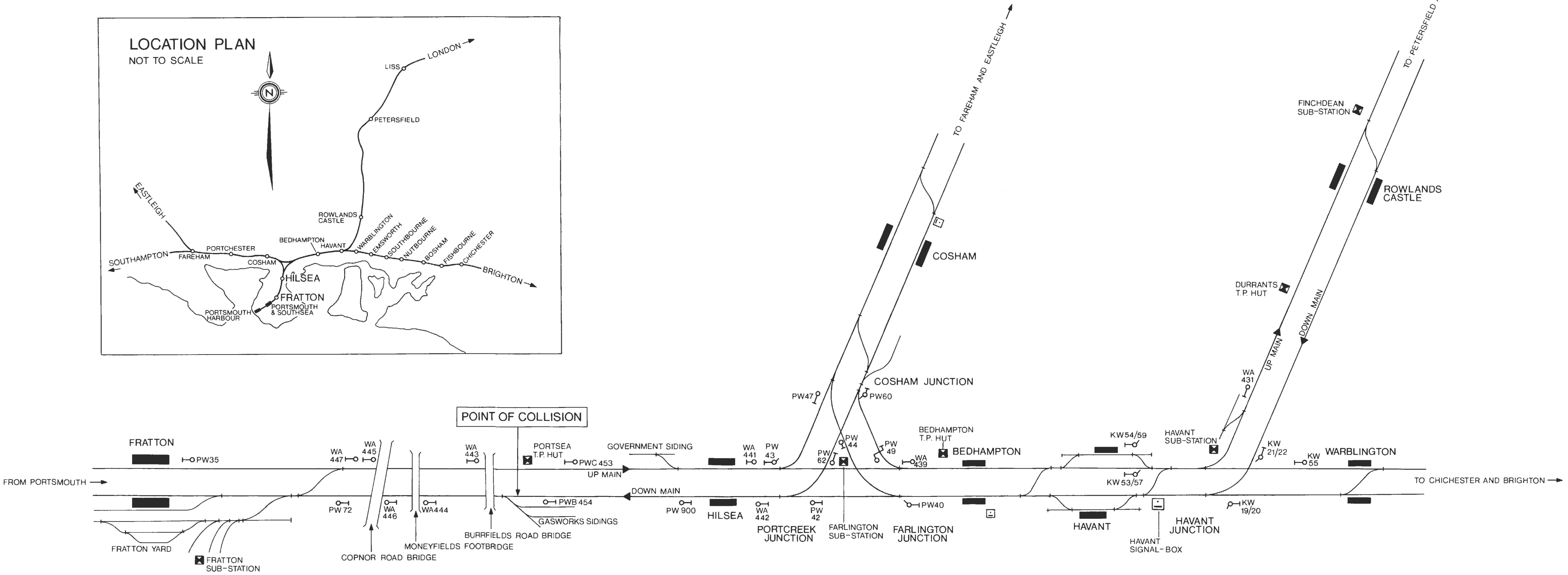
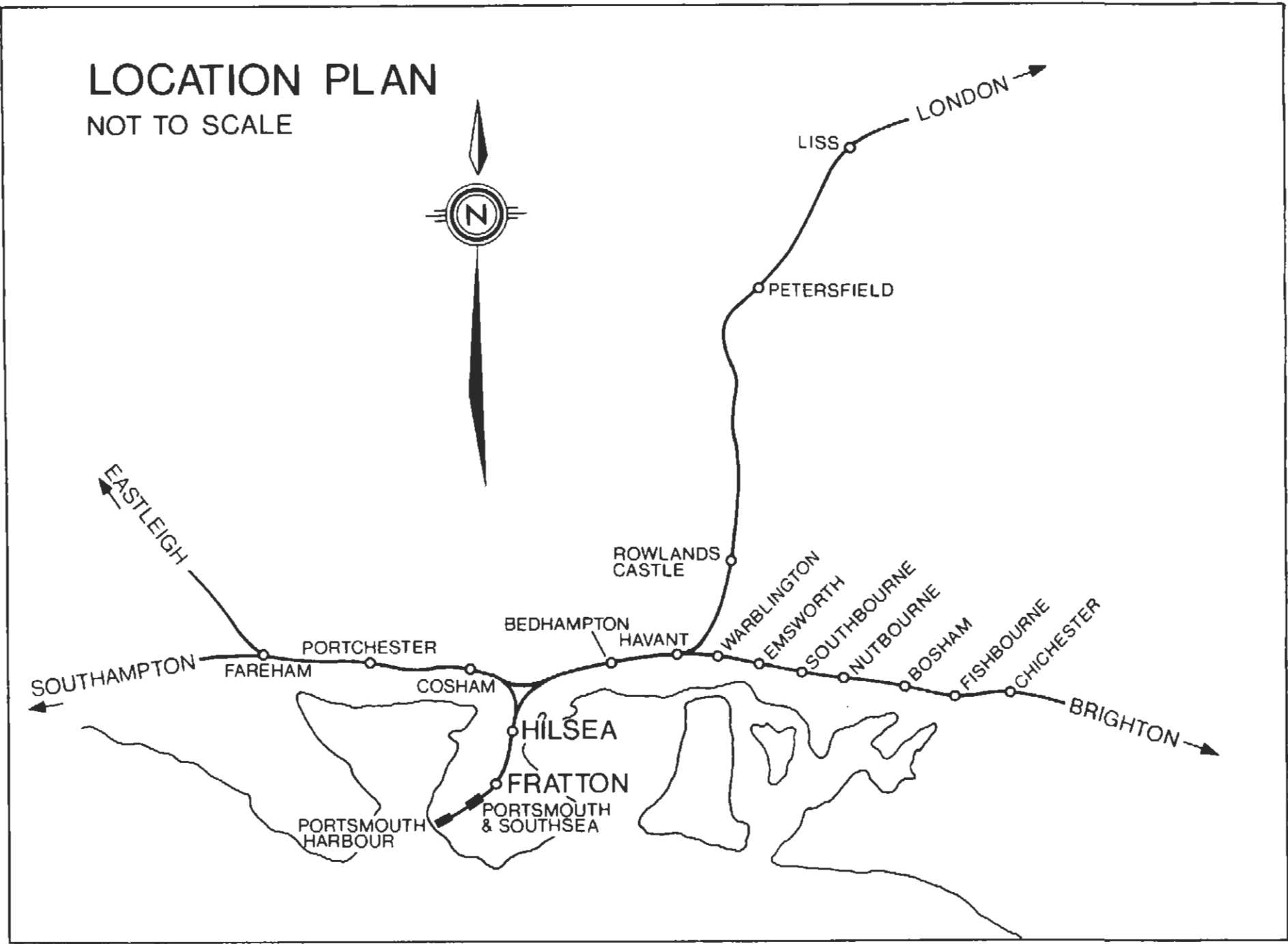


DIAGRAM OF THE LINE  
NOT TO SCALE ONLY RELEVANT SIGNALS ARE SHOWN