

RAILWAY ACCIDENT

REPORT OF INQUIRY

INTO

THE COLLISION THAT OCCURRED

AT ROSSLARE STRAND STATION

ON 13<sup>th</sup> AUGUST, 1974.

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Department of Transport and Power,

Dublin.

March, 1975.

RAILWAY ACCIDENT AT ROSSLARE STRAND STATION

ON 13th AUGUST, 1974

1. The Minister for Transport and Power by order dated 9th December, 1974, directed that an Inquiry be made by Mr. J.V. Feehan, B.E., M.I.E.I., into the cause of an accident which occurred at Rosslare Strand Station on 13th August, 1974.

2. I inspected the site of the accident on 13th August, and I heard evidence from persons concerned and from officers of Coras Iompair Eireann on 20th December, 1974, at the C.I.E. Works, Inchicore, Dublin, and on 13th January, 1975, at Aras Eanna, Lower Gardiner Street, Dublin. The evidence was not taken on oath. I have the honour to report as follows:-

3. The 18.30 hours up passenger train from Rosslare Harbour to Limerick (which was running about 70 minutes behind schedule owing to the late running of the Fishguard/Rosslare Harbour boat) and the 16.00 hours down passenger train from Limerick to Rosslare Harbour (which was running about 10 minutes behind schedule) collided head-on near the turnout at the Ballygeary (Rosslare Harbour) end of Rosslare Strand Station. At the time of the collision the down train was stationary and the up train was travelling at an estimated speed of 15 m.p.h. The collision occurred in daylight; visibility at the time was good and the weather was dry.

4. Both trains were heavily loaded but fortunately there were no fatal casualties. A total of 13 passengers were injured (7 on the down train and 6 on the up train). Three of the injured passengers were removed to hospital for treatment - two were released the following day and the third was released on the following Saturday. Two C.I.E. employees suffered slight injuries which did not entail either of them going off duty.

5. As a result of the collision the line was blocked until 07.50 hours on Wednesday, 14th August, 1974.
6. Both trains involved in the collision were scheduled to stop at Rosslare Strand Station and to cross at Wellington Bridge Station (about 17½ miles on the Limerick side of Rosslare Strand).

DESCRIPTION

Site and Signalling (see Attachment A)

7. Rosslare Strand Station is the junction between the Dublin/Rosslare Harbour and Limerick/Rosslare Harbour lines. Both lines are single lines worked by electric train staff. There are two platforms at Rosslare Strand Station. The one at the right-hand side approaching from Rosslare Harbour is referred to in this report as the "Wexford" platform while the other is referred to as the "Waterford" platform. The Station Booking Office is on the Wexford platform. The Station Signal Cabin is just past the Dublin (Wexford) end of the Wexford platform. There is a double line through the Station. The Wexford platform is used by all up and down Dublin (and Wexford) trains except when two such trains have to cross at Rosslare Strand.
8. Prior to 1973 (when the connection from the Waterford line to the Down Loop was removed) Limerick/Rosslare Harbour trains could use both platforms. Since the removal of this connection Limerick/Rosslare Harbour trains cannot be brought direct to or from the Wexford platform, and all trains to and from Limerick (and Waterford) must use the Waterford platform when arriving at or departing from Rosslare Strand Station.

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9. The line approaching Rosslare Strand from Rosslare Harbour has a down gradient for the last  $\frac{1}{2}$  mile (approx. 1 in 166 for  $\frac{1}{4}$  mile, approx. 1 in 112 for the last  $\frac{1}{4}$  mile, and approx. 1 in 120 very close to the Station). Through the Station there is a down gradient of approx. 1 in 500. The Signal Cabins at the outer ends of the sections from Rosslare Strand are -  
(a) Rosslare Harbour direction, Ballygeary, (b) Limerick direction, Bridgetown, and (c) Dublin direction, Wexford South. The signals in order of meeting them when approaching Rosslare Strand from Ballygeary are:-

- (i) Distant Signal (No. 1). This signal can only be pulled off when a route is fully set for a train to Bridgetown;
- (ii) Home Signal (Nos. 2 and 5). The left hand signal (No. 2) reads to the Waterford platform and the right hand signal (No. 5) reads to the Wexford platform;
- (iii) Starting Signals (Nos. 6 and 8) on Waterford platform. The left hand signal (No. 8) reads to the Bridgetown section, the right hand signal (No. 6) reads to the Wexford South section, and
- (iv) Starting Signal (No. 9) on Wexford platform which controls entry into the Wexford South section.

The signals in order of meeting them when approaching Rosslare Strand from Bridgetown, and after passing Grange Big Level Crossing are:-

- (i) Home Signal (No. 20) for the Waterford platform;
- (ii) Starting Signal (No. 19) on Waterford platform which controls entry from Waterford platform into Ballygeary Section, and
- (iii) Starting Signal (No. 22) on Wexford platform which controls entry from Wexford platform into Ballygeary Section.

All signals at Rosslare Strand Station are of the semaphore type

The trains

10. The 18.30 hours up train from Rosslare Harbour consisted of a locomotive (B. 192), a parcels van (2747), four passenger coaches (1370, 1372, 1396 and 1502) and a heating van (3101). There were 273 passengers on this train. Estimated train weight 150 tons plus the locomotive weight of 65 tons.

The 16.00 hours down train from Limerick consisted of a locomotive (B. 176) bogie van (2574), five passenger coaches (1352, 1404, 1494, 1398 and 1365), bogie van (2566) and power van (3191). There were 260 passengers on this train. Estimated train weight 250 tons plus the locomotive weight of 65 tons.

The course of the accident and damage caused

11. At the time of the collision the points were set to make the connection from the Waterford platform into the Ballygeary Section. The two locomotives absorbed the main force of the collision. From the position in which the buffers of the locomotive of the up train and other debris was found on the permanent way after the collision it appeared that the down train had been pushed back about 21 feet. The clearance between the turnout line and the line into the Wexford platform at the point where the front of the locomotive of the down train was standing after the accident was about 4½ feet. If the down train had been pushed back 21 feet by the collision the corresponding clearance at the point of impact would have been about 3 feet.

The leading bogie of the locomotive of the down train and the trailing wheels of the trailing bogie of the locomotive of the up train were derailed. No other item of rolling stock was derailed.

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After a short interval the Starting Signal (No. 19) was lowered. Driver O'Regan had not asked the Signaller to lower the Starting Signal and although he did not have the token for the Ballygeary Section he took the lowering of the signal as an indication that he could pass it to make a shunting movement within station limits. He estimated station limits as Home Signal to Home Signal. His intention was to pull sufficiently past the Starting Signal to clear the points in rear before reversing onto the Wexford line. He was satisfied that Rule 38 covered this movement. He then sounded the hooter and moved his train slowly ahead without the guard's signal until he reached the fouling point with the line from Ballygeary into the Wexford platform, where he stopped the train. He then looked at the back of the Waterford up Home Signal (No. 2) waiting for it to be lowered, as this would have been an indication to him that he could reverse onto the Wexford line. After an interval of one or two minutes he saw the up train approaching. He was satisfied that the up train was travelling too fast to stop at the up Home Signal, so he put his locomotive into reverse and the power controller into notch 4. The locomotive did not respond. He then applied the locomotive brake and shut off power. He instructed the snatcherman to jump clear and he jumped clear himself. As he reached the ground the up train crashed into his train. Driver O'Regan thought his train was not pushed back in the collision. On 13th January, 1975, he submitted a copy of a magazine photograph taken in 1964 at Rosslare Strand showing a goods train setting back into the Bridgetown section with the Starting Signal lowered.

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13. Driver O'Regan said that on the evening of the collision he had got a clear run through Bridgetown. He contended that if the up and down trains were approaching Rosslare Strand simultaneously, he should have been cautioned at Bridgetown and both trains should have been accepted under Regulation 5 (the Warning Arrangement). Driver O'Regan stated that at Rosslare Strand signals were always used for shunting purposes. This does not happen at other stations.

He then referred to the alterations that had been carried out to the signals at Ballygeary and Rosslare Strand since the date of the collision (detailed in para. 30).

Driver O'Regan said that in his Report of the Mullingar accident in 1963 the then Railway Inspecting Officer had stated that the Board's Rules and Regulations were in need of updating and he maintained that the amendment slips issued since the books were last printed were too numerous and bulky for insertion in the relevant books.

On 13th January, 1975, Driver O'Regan enquired if the definition of station limits as set out in the Weekly Circular for week-ended 18/1/75 referred to single and double line working and whether it took account of Limit of Shunt Signals and Starting and Advanced Starting Signals. He drew attention to the fact that while the Weekly Circular for week-ended 23/10/65 stated that the use of the Warning Arrangement for down trains from Wexford South was cancelled the relevant reference was still in the Working Timetable current on the day of the collision. Driver O'Regan also said he had not been instructed in the procedure for crossing trains at Rosslare Strand following the track alterations carried out in May, 1973, nor had he crossed another train there between May, 1973 and the date of the collision.

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He stated that the section of track removed in May, 1973, was part of the main down line from 1906 to 1965 and that it was an up and down line from 1965 to 1973. He believed its removal had a great bearing on the accident. If it had not been removed it would not have been necessary to shunt his train.

14. Guard P. O'Connor took up duty on the 16.00 hours down train from Limerick at Limerick Junction. When Driver O'Regan took over the train at Waterford he did not advise Driver O'Regan of the load and make-up of the train. He travelled in the second van from the rear. The train slowed but did not stop at the Rosslare Strand Home Signal. When the train halted at Rosslare Strand Station Guard O'Connor stepped out onto the platform. He was satisfied that the train came to a complete stop only once at Rosslare Strand. He was on the platform for 2 to 4 minutes before the collision. The train did not move forward after he alighted from it. Guard O'Connor was not certain if his train was pushed back by the collision but he thought it was pushed back a slight bit. He had not checked the emergency equipment on his train before leaving Limerick Junction Rule 130(1)). After leaving Limerick Junction he noticed that some of the specified items of emergency equipment were not aboard his train.

15. Acting Travelling Ticket Collector M. Minihan took up duty on the 16.00 hours down train from Limerick at Limerick. Approaching Rosslare Strand he was in the second last van with Guard O'Connor. He thought the train slowed down but did not stop at the Rosslare Strand Home Signal. The train came to a complete halt only once at Rosslare Strand. When the train halted he alighted onto the platform. He was on the platform for 2 to 3 minutes before the collision. He was certain that the train had not moved forward after he alighted from it. He thought his train was pushed back a bit by the collision.

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16. Driver W. Watson took up duty on the 18.30 hours up train at Rosslare Harbour. He checked his locomotive and was satisfied that everything was in order before leaving Rosslare Harbour. The signalman at Ballygeary told him that he would be going in on the wrong road (the Wexford platform) at Rosslare Strand. The signalman did not say he would be stopped at the Home Signal. It was the first time he had ever got a message of this kind from a signalman. When he first saw the Rosslare Strand Distant Signal it was at Caution. He was then travelling at 45-50 m.p.h. and he cut power back to notch 4 before reaching the Distant Signal. At the Distant Signal he cut power completely. He made a brake application before sighting the Home Signal (No. 5). When he first saw the Home Signal he thought it was off. He was distracted by the down train and he could see that the line into the Wexford platform was clear. He released the brake and then noticed that the Home Signal (No. 5) was at Danger. He immediately applied both brakes. He did not know that the points were set to the Waterford platform until his train lurched when crossing them. If the points had been made for the Wexford platform he thought there might have been sufficient room for his train to pass the down train without hitting it. He estimated his speed across the points at 15 m.p.h.

Driver Watson's explanation for passing the Home Signal at Danger was that the message he had received from the Signalman at Ballygeary had probably made him less cautious than he might otherwise have been; he was also distracted by the presence of the down train and he could see that the line into the Wexford platform was clear. There was no possibility that he had momentarily nodded off to sleep. He was driving the locomotive from the right-hand side of his cab. Driver Watson had not crossed another passenger train at Rosslare Strand since the track layout was altered in May, 1973. He had not been instructed as to how trains should be crossed there following these alterations. /...

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Driver Watson does not receive copies of/Weekly Circular  
for the periods of his annual leave.

17. Acting Guard E. Butler took up duty on the 18.30 hours  
up train at Rosslare Harbour. He travelled in the first brake van  
which was immediately behind the locomotive. During the approach  
to Rosslare Strand he was sorting out letters and luggage.  
He was not keeping a look-out as required by Rule 148(a).  
He noticed nothing unusual until he was thrown against the van  
bulkhead by the impact of the collision.

Before leaving Rosslare Harbour he had checked the  
emergency equipment on his train and found that some of the  
specified items were not aboard. He had not reported this  
to anyone. He did not have all the items of guard's equipment  
listed in Rule 129(3). He does not receive the Weekly Circular.

Mr. Butler is normally employed as a porter.  
He was last examined in the Rules and Signalling Regulations,  
including those pertaining to guard's duties, about 18 months  
previously.

18. Acting Signaller P. Codd took up duty at Rosslare Strand  
at about 13.45 hours. He released the token for the 18.50 hours  
Rosslare Harbour/Dublin up train at 18.20. This train entered  
the Ballygeary-Rosslare Strand Section at 19.28<sup>and</sup>/departed  
from the Wexford platform at Rosslare Strand at 19.35.  
The token for the Rosslare Strand-Wexford South Section had been  
released at 18.15. The release of tokens a long time before  
trains entered sections (for these movements over one hour  
in each case) were not isolated instances at Rosslare Strand.  
His justification for this practice was that, as the only station  
employee on duty, he had, in addition to his signalling duties,  
to perform station duties including selling tickets, booking luggage  
and attending to passengers.

Signalman Codd released the token for the 16.00 hours down train from Limerick at 19.25. This train entered the Bridgetown-Rosslare Strand Section at 19.33. The train, which was accepted under Regulation 3, arrived at Rosslare Strand at 19.44. The "Train Out of Section" signal was sent to Bridgetown at 19.47 before Signalman Codd had verified that the train had arrived with tail lamp complete.

Signalman Codd 'phoned the signalman at Ballygeary and asked him to tell the driver of the 18.30 up train from Rosslare Harbour that he would be coming in on the wrong road (to the Wexford platform). He received the "Is Line Clear" signal for this train at 19.40 (entered in error as 18.40 in the Train Register Book). He thought he had released the token for this train at 19.33. The points at the Ballygeary end of the Station were set to suit the Waterford platform. The up train was also accepted under Regulation 3. Signalman Codd admitted that it was a breach of the Signalling Regulations to accept the up train without all the necessary points being placed in their proper position for its approach.

Signalman Codd had proposed the following procedure for crossing the trains - keeping the down train at the Waterford platform, bringing the up train to the Wexford platform, reversing the up train into the Ballygeary Section and the down train into the Wexford South Section, then allowing the up train to depart to Bridgetown and the down train to depart to Ballygeary.

Signalman Codd walked from his signal cabin along the permanent way to the point where the driver of the down train passed him the token. At this stage the down train from Limerick was moving very slowly and it had not reached the down Starting Signal (No. 19) which was at Danger. He told the driver how he proposed to cross the trains and he also told him that the

up train was "on". The driver of the down train suggested he would pull his train forward a bit, still inside the Home Signals, to clear out of the way. Signalman Codd told him he would want to make the movement quickly (pull forward and reverse into the Wexford South section). Both up Home Signals (Nos. 2 and 5) were at Danger since the up Dublin train had arrived at Rosslare Strand.

Signalman Codd then walked back to his signal cabin and lowered the Starting Signal (No. 19). The down train was then stopped inside the Starting Signal. He lowered the Starting Signal in the knowledge that the up train had left Ballygeary. He was influenced to depart from his original plan (to hold the down train at the Waterford platform until the up train had arrived at the Wexford platform) by the conversation he had with the driver of the down train. His intention in departing from the original plan was to speed up the crossing of the trains.

Signalman Codd stated that he might have forgotten that the points at the Ballygeary end of the station were set to suit the Waterford platform due to the number of passengers he had to deal with that evening. From his Signal Cabin he saw the collision. He thought the down train was pushed back little if any distance by the collision.

19. Signalman Codd is normally employed as a porter. He has not got a copy of the Regulations for Train Signalling but there is a copy in the Rosslare Strand Signal Cabin. He received his Signalling Certificate in 1965. Since that time he has performed signalling duties for about two months in each year. He was examined in the Signalling Regulations about a year prior to the date of the collision. The examination was carried out by Inspector Croke who asked him a few questions about shunting.

He had not crossed trains at Rosslare Strand since the station layout was altered in 1973. He had no instruction as to how trains should now be crossed there. He did not know he would have to cross the trains on the evening of the collision until about 10 minutes before the down train arrived at Rosslare Strand. He had seen other signalmen use a bicycle at Rosslare Strand. He did not own a bicycle.

20. Signalman P. Mythen was on duty at Ballygeary Signal Cabin. He said that a token which was released to him at 18.20 was taken by the 18.50 up train to Dublin which passed Ballygeary at 19.28. This token would have been taken by the 18.30 up train to Limerick if it had been running on schedule. It was not the general practice at Ballygeary to have the token out so far in advance of a train entering the section but, if the man on duty at Rosslare Strand had to leave his signal cabin to carry out station duties, tokens were released 10 to 15 minutes before trains entered the section. The signalmen at Rosslare Strand advised him on the 'phone when they were leaving their Signal Cabin.

At 19.39 Signalman Mythen received the "Train Out of Section" signal for the up Dublin train and immediately afterwards Signalman Codd phoned him to enquire where the 18.30 up Limerick train then was. Signalman Mythen told him it was crossing the viaduct (between Rosslare Harbour and Ballygeary). In the course of this conversation Signalman Codd said that the down train from Limerick was then on the Waterford road (at the Waterford platform at Rosslare Strand) and he asked Signalman Mythen to advise the driver of the up Limerick train that he would be going in on the wrong road (to the Wexford platform) at Rosslare Strand. Signalman Mythen gave this message, as requested, to the driver of the up Limerick train.

This train entered the Ballygeary/Rosslare Strand Section at 19.41. The signal for this movement was acknowledged by Rosslare Strand.

Signalman Mythen had on previous occasions passed messages to train drivers but it was not usual to be asked to give messages to drivers.

21. Signalling and Electrical Inspector P. Deegan said he checked the signalling installations at Rosslare Strand on 13/8/74 shortly after the collision and found them satisfactory. There was no history of trouble with these installations since the track and signalling layouts were altered in 1973. Before these alterations were carried out he had discussed them with the local signalmen. One signalman had expressed his disapproval but Inspector Deegan thought this disapproval related to the possibility of redundancy as a result of the alterations. On the night of the collision he noticed that the rear of the 16.00 hours ex Limerick down train extended slightly more than a van length (in the Limerick direction) over the points for the Wexford South section.

22. Area Traffic Inspector J. Croke said that for the past 3 years he was responsible for carrying out the annual examinations of signalmen in an area that included Rosslare Strand. During the course of these examinations he would ask each signalman a few questions - especially about Signalling Regulations Nos. 35 and 16 and the Blocking Back Regulation (No. 13). At one time he had a list of instructions and questions (prepared by C.I.E.) for carrying out the examinations but he no longer had it. He based his examinations on the Regulations for Train Signalling. None of the Rosslare Strand signalmen complained to him of any difficulties or anxieties following the alterations carried out in May, 1973.

When visiting a Signal Cabin he inspected its Train Record Book. He was unaware that it was a practice to have tokens out in the Rosslare Strand area for long periods before trains entered sections. He would regard the release of tokens an hour before trains entered sections as a serious breach of Regulations and a dangerous practice. Inspector Croke said that up to 3 or 4 years ago Refresher Courses in signalling were held locally for signalmen but these courses had been discontinued because of staff shortages.

23. Locomotive Inspector W. McDonnell said he was responsible for examining drivers in his area every year in the Rules and Regulations. Up to recently the examinations were not strictly formal but since the Rosslare Strand collision each driver is subjected to a formal individual examination which is carried out in the Superintendent's office. The list of examination questions has been expanded from the previous 26 to 87 and each driver is now examined in the full list of questions. Inspector McDonnell also travels on the footplate with each of his drivers at least twice a year.

24. Area Traffic Inspector M. Dunne gave a verbal instruction to the two regular signalmen at Rosslare Strand as to how Limerick/Rosslare Harbour passenger trains approaching Rosslare Strand simultaneously from Bridgetown and Ballygeary should be crossed at the Station. This instruction was given in November, 1973. He did not give this instruction to Relief Signaller Codd; he was unaware at that time that Signaller Codd did relief duty at Rosslare Strand.

Inspector Dunne's instruction was - the up train to be brought in to the Wexford platform and the down train to the Waterford platform, the down train should then be allowed off to Ballygeary, the up train should be propelled into the Ballygeary section and allowed proceed via the Waterford platform.

The propelling (reversing) movement into the Ballygeary section was in accordance with Signalling Regulation 16(iii) as it was necessary to propel the up train outside the Home Signal. The Signalmen understood that this involved blocking back. The Area Rail Manager was aware that this instruction required his approval if the propelling movement extended outside station limits (Rule 149(i)). If trains were not approaching simultaneously the local signalmen were to use their own discretion as to how trains should be crossed.

Inspector Dunne was unaware, that from the time the track layout at Rosslare Strand was altered in May, 1973, until he gave the instruction in the following November, Limerick/Rosslare Harbour trains were not being crossed at Rosslare Strand. He had not been at Rosslare Strand between November, 1973 and the day of the collision.

25. Mr. C. O'Brien, Port Manager, Rosslare Harbour stated that he was responsible for rostering the signalmen at Rosslare Strand. He assigned Relief Signalman Codd to a tour of duty that included the day of the collision. Prior to the collision he was not aware that following his signalling course in 1965 the Training Officer's assessment of Signalman Codd included - "tends to become confused" - "requires plenty of practice". Signalman Codd had been issued with a Signalling Certificate and no attempt had been made to roster him for signalling duties during slack traffic periods.

26. Area Rail Manager J. Leonard said he had discussed the instruction for crossing trains at Rosslare Strand with Inspector Dunne. It was his view that station limits could be taken to mean movements controlled by signalmen within the Signalling Regulations and a blocking back movement would be within station limits. He had failed to find a hard definition of station limits. No Limerick/Rosslare Harbour passenger trains had been crossed at Rosslare Strand between May, 1973



(when the station layout was altered) and 1st December, 1973 (after Inspector Dunne had instructed the signalmen).

Mr. Leonard's opinion was that the removal of the loop (in May, 1973) had nothing to do with the accident. The junction layout was due for renewal and removal of the loop resulted in an estimated saving of approximately £10,000. Mr. Leonard had not consulted the Railways Manager's Department about the proposed alteration. The proposal to alter the track layout was initiated by the Chief Civil Engineer.

27. Area Manager J.A. O'Connor described a test carried out at Rosslare Strand with a train of similar make-up to the 16.00 down train from Limerick. When the locomotive was stopped 2 yards short of the down Starting Signal (No. 19) the two rear vans were outside the end of the Waterford platform (each van was about 65 feet long).

From an operating point of view he had approved the alterations carried out at Rosslare Strand in May, 1973. To his knowledge the initiative regarding the implications of the Railways Acts would be for the Chief Civil Engineer.

28. Technical Assistant T. Fraughen described three tests carried out on the up line from Ballygarry using a train of similar weight to the 18.30 hours up train from Rosslare Harbour. When the emergency brakes were applied 250 yards ahead of the up Home Signal at Rosslare Strand the results were

- (a) speed 28-30 m.p.h. - train stopped 40 yards before the up Home Signal;
- (b) speed 50 m.p.h. - train stopped 174 yards beyond the Up Home Signal, and
- (c) speed 40 m.p.h. - train stopped 22 feet beyond the up Home Signal.

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Mr. Fraughan stated that these stopping distances were, in all cases, not incompatible with calculated stopping distances.

The maximum viewing distances of the up Home Signal from the left and right hand seats of a locomotive approaching Rosslare Strand from Ballygeary are, respectively, 533 and 712 yards.

29. Railway Personnel and Methods Officer B. d'A Patterson confirmed that the crossing of Limerick/Rosslare Harbour trains at Rosslare Strand has been suspended since the collision on 13/8/74.

Following the accident a headquarters Inspector had been sent to examine the working of Rosslare Strand Station.

The Inspector reported the following irregularities:-

- (a) tokens being released too early as a general practice;
- (b) a small number of instances where tokens were held out for shunting movements to avoid sending the Blocking Back Signal;
- (c) signals controlling the entrances to the block sections being lowered for shunting purposes, and
- (d) signalmen not complying with the Regulations when leaving the signal cabin.

The next issue of the Working Timetable would be amended to take account of the cancellation of the use of the Warning Arrangement for trains from Wexford South (as per Weekly Circular dated 23/10/65).

Mr. Patterson agreed that station limits were not defined in the current CIE Rule Book. His definition of stations limits was "the portion of line between the Home Signal (or Outermost Home Signal where more than one is provided) and the signal controlling entrance to the block section for the same line worked from the same signal box". This definition would be issued

shortly in the Weekly Circular and, in due course, in the Rule Book.

He then drew attention to clause (c) of the Working of Fixed Signals Regulation which states that the signal controlling the entrance of trains into the section ahead must not be lowered until a token has been obtained for the train to proceed to the token station in advance. In certain specific circumstances as set out in Rule 38(a) the signal may, however, be passed at Danger. He regarded the practice of lowering the Signal before the token had been obtained as very irregular.

Acceptance of trains in accordance with the instruction given to the Rosslare Strand signalmen by Inspector Dunne was perfectly permissible provided both Home Signals were at Danger and the points were properly set.

It was completely irregular for a train driver to read the back aspect of a Home Signal.

He felt that when the decision was taken to alter the track layout at Rosslare Strand the requirement to comply with the provisions of the Railways Acts was overlooked.

Mr. Patterson confirmed that following the accident certain CIE staff were asked to undergo medical examinations. They had all refused to undergo these examinations.

30. Assistant Signal and Electrical Engineer C. Scully detailed alterations carried out to the signals at Rosslare Strand subsequent to the accident. The up Home Signals (Nos. 2 and 5) were moved about 20 yards closer to the points leading into the Waterford platform. This was because the signals were considered to be rather further from the locking bar than is normal at most stations. The down Home Signals (Nos. 18 and 23) were moved about 30 yards closer to the points leading into the Waterford platform for the same reason. The Wexford up Starting Signal (No. 9) was moved about 190 yards nearer to the loop

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leading from the Waterford platform to the Wexford direction to enable longer trains to be accommodated at the Wexford platform without passing this Signal. The normal place for the Starting Signal is at the start of the loop. It could be argued that this Starting Signal should have been moved when the Station layout was altered in May, 1973. None of these changes were carried out as a result of the accident.

#### CONCLUSIONS

31. I consider that the immediate causes of this accident were the failure of Acting Signalman Codd to set the points correctly when accepting the 18.30 hours Rosslare Harbour/Limerick up train from Ballygeary and the failure of Driver Watson to observe, sufficiently early, that the up Home Signal (No. 5) was at Danger with the result that he could not bring his train to a halt before it passed this signal.
32. Factors that contributed to the accident were the lowering of the down Starting Signal (No. 19) by Acting Signalman Codd to accommodate a shunting movement by the 16.00 hours down train from Limerick and the passing of this lowered signal by Driver O'Regan when he did not have the token.
33. Acting Signalman Codd had not been instructed as to how passenger trains should be crossed at Rosslare Strand following the track alterations carried out in May, 1973, nor had he crossed trains there since that date. Neither Driver O'Regan nor Driver Watson had crossed another train at Rosslare Strand since the station layout had been altered in May, 1973.

I feel that when Acting Signalman Codd lowered the down Starting Signal he must have overlooked that he had already accepted the up train from Ballygeary. The irregular practice of lowering signals controlling the entrance into block sections for shunting purposes at Rosslare Strand may explain why Driver O'Regan passed the Starting Signal after it had been lowered and when he did not have the token in his possession.

There were conflicts in the evidence as to the number of times the 16.00 hours down train came to a complete halt at Rosslare Strand Station and as to where the driver of this train passed the token to the signalman. In my view these conflicts were not material in the context of determining the causes of the accident. There was no doubt but that the down train was at all times fully under the driver's control. The non-inclusion of a definition of station limits in the CIE Rule Book left drivers and others free to put different interpretations on these limits.

The verbal message that Driver Watson received from the Signalman at Ballygeary may have made him less cautious and less reliant on signals than he might otherwise have been.

34. I am satisfied that the Rules and the Regulations for Train Signalling were not being fully observed at Rosslare Strand (tokens released too early, tokens held out to perform shunting movements, signals controlling the entrance into block sections were lowered for shunting purposes) and that the supervision, training and examination of signalling staff there was unsatisfactory.

Approval was not sought, in accordance with the Railways Acts, for the track alterations carried out in May, 1973. In my view these alterations required approval under the Railways Acts.

The specified emergency equipment was not carried on either of the trains involved in the accident. The guard of the 18.30 hours up train did not have all the guard's equipment required by Rule 129(3). The guard of the 16.00 hours down train did not advise the driver of the make-up of his train.

/...

While the evidence and the relevant Signal Cabin Train Record Books show discrepancies between the times for the same train movements it is almost certain that the 16.00 hours down train from Limerick was at least at the Rosslare Strand down Home Signal before the 18.30 hours up train from Rosslare Harbour left Ballygeary.

So many amendments have been issued to the Rule Book (1967), the Regulations for Train Signalling (1952) and the Appendix to the Working Timetable (1935) that it is unrealistic to expect that every member of the staff who must have these documents has kept them up to date.

There was no suggestion that anything in the condition of either train prior to the accident contributed in any way to the collision nor was there any suggestion that the medical condition of any of the persons involved was a factor.

I am satisfied that the two trains could have been crossed safely at Rosslare Strand Station if the appropriate Rules and the Regulations for Train Signalling had been applied and observed. I am also satisfied that the crossing of Limerick/Rosslare Harbour trains at Rosslare Strand Station was more straightforward before the connection from the Waterford line to the Down Loop was removed in 1973.

#### RECOMMENDATIONS

35. Improved procedures for the inspection, examination and supervision of signalmen, drivers and guards should be instituted. Refresher Courses in the Regulations for Train Signalling and in the Rules should be provided for all personnel engaged in signalling duties at Rosslare Strand.

No signalman should be rostered for signalling duty at a particular Station until he has been fully instructed in the working of the signals under his control and in all the movements that are permissible at that Station.

The issuing of verbal instructions, other than those specified in the Rules and Regulations, should be prohibited.

The definition of station limits should be inserted in the Rule Book at the earliest possible date.

Authorisations for propelling movements outside station limits (Rule 149(1)) should be given in writing by the Area Operating Manager.

It is desirable that the Rule-Book, the Regulations for Train Signalling and the Appendix to the Working Timetable should be revised and reprinted at the earliest possible date.

*J. V. Feehan*

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Railway Inspecting Officer.

Bridgetown,  
Waterford and  
Merick

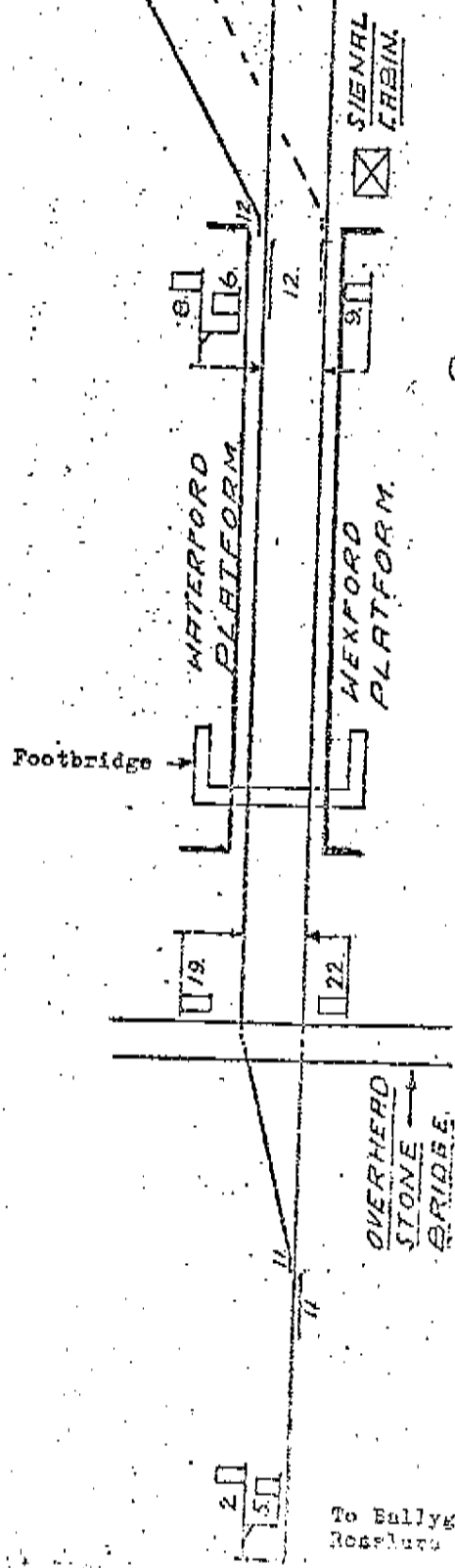
To Waterford, Merick  
and Dublin

Signals  
Nos.  
18 & 23

Signal No. 20

Section of track removed  
May, 1973.

LAYOUT OF  
ROSSLAKE STRAND  
STATION  
(Not to Scale)



To Ballygeary and  
Rossakra Harbour

Dist. 1/2500