



Melbourne,

2nd November, 1922.

Memorandum:

TRAMWAY TRAFFIC AT LEVEL CROSSINGS.

(Correspondence 18/18223 attached)

This correspondence deals with a proposal put forward by the Tramway Board with a view to preventing a collision between a runaway tram and a passing train.

In the case of an electric tram, requirements are met by Derail Points. But in the case of a cable tram, the Tramway authorities considered the Derail Points would be inadequate and requested this Department to provide the interlocked Plunger-bolt which, operating in the slot, and forming rigid obstruction to the Gripman's operating lever would stop the tram; this arrangement which is shown in detail on attached plan, is in operation at St.Georges Road, North Bitzroy. The Plunger-bolt is operated by the Signalman, and Mr.Murfitt, Block and Signal Inspector, has submitted a proposal that the Plunger-bolt should be operated by the Conductor of each tram, but interlocked, as at present, so that the Conductor could not operate the Plunger-bolt unless the Gates were open and the Signal 'Off' for the tram.

As stated in my previous report, I regard the instructions issued by the Tramway Board in respect of the Plunger-bolt at St. Georges Road as inadequate, and I have been engaged in re-drafting our General Appendinstructions with a view to their being issued as directions to Tramway employes, also. The attached draft which is complete except in regard to some technical details respecting the overhead electric equipment are being dealt with by a Committee and which may be added to the inions issued to Tramway man, contains some important duties of which Tramway employes have no responsible knowledge. But in connection Tramway Crossings, generally, these are some important aspects which to be matters for consideration by the Crown Solicitor; the following are examples:-

- (a) Responsibility for observance of joint instructions by the playes of the Tramway Board.
- (b) That the turning off of the Tramway Disc Signal, shall merely denote that the tram may pass over the Crossing and shall not imply the Crossing is clear of vehicular or pedestrian traffic; and that Commissioners shall not be liable in cases of personal injury to engers or pedestrians or damage caused by collision with road vehicular.
- a car being derailed or damaged by the Derail or Plunger-bolt, if to Tramway employes disregarding the lixed Signals. But when, a icipated by the Tramway Board, the Tramway employes lose control their car, the question as to whether our Signalman should stoo away car by means of the Derail or Plunger-bolt if the Level Cross be clear, appears to be one of special importance, particularly in of risk of personal injuries involved by derailment or by the oper of the Plunger-bolt. When the 'Grip' of a cable tram becomes seing a broken strand of the cable, the Gripman notifies his Conductor of a Code Signal and the latter rings an alarm bell fixed in the room; press-buttons are fixed for this purpose on certain poles the Tramway track.

It appears to me that since the drivers of road vehicles essarily on the lockout for a tram, and as the latter has prefere the public roadway, it may be desirable that our Signalman should a runaway tram to proceed if the Level Crossing be clear; but if adopt that principle, some reliable means must be provided to inf Signalman when the danger conditions arise.

The Flunger-bolt was suggested by the Tramway Board

protect

- 2 -

protection of their passengers and cars, but our employes are responsible for its safe operation; it is in this connection that Mr.Murfitt's suggestion is of special interest. If the Plunger-bolt be interlocked as at present and the Tram Conductor made responsible for releasing it when the Signal is 'Off', accidents due to inadvertence would ordinarily be more frequent, and, in the case of a runaway tram, the accident would be inevitable.

Present indications point to the abolition of Cable trams and in such case, the Plunger-bolt will also become obsolete, but the risk of personal injury, due to a derailed electric car colliding with an adjacent private vehicle would still exist. It appears that there should be some mutual and concrete agreement between this Department and the Tramway Board; but I suggest that the Crown Solicitor be first consulted and that the policy of the Department in respect of these important aspects be defined.

Theary

Safe Working Officer.

General Superintendent.

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per Sup't. Goods Train Service.

LEVEL CROSSINGS AT WHICH TRAMWAY TRAFFIC IS RECU-

- 1. At a Level Crossing where Disc Signals are provided to govern movements of Tram Cars over the Railway Line, the Disc Signals work in conjunction with Derail Points in the Tramway, clear of the Level Crossing Gates. The following instructions must be observed by the Signalman, i.e., the employe in charge of the Gates and Signals:—
- (a) The Signalman must closely observe the working of the Tramway Disc Signals in order to see that they work well and show properly, and, as far as is reasonably practicable, he must also observe the working of the Derail Points.
- (b) The Derail Points must be cleaned once at least on each shift, or if necessary, more frequently.
- (c) In the case of any disarrangement of the overhead electric equipment of the Railway or Tramway system, the Signals must be exhibited to stop trains and trams until the Signalman has seen that the traffic can pass in safety.

Consistent with the safe and proper working of Trains, the working of Trams over the Level Crossing must be conducted by the Signalman with the least cossible delay.

- (d) The normal position of the Tramway Disc Signal is at Stop, and a Disc Signal must not be turned off for a Tram to pass over the Level Crossing unless the Signalman is satisfied that the Tram can safely proceed over the Level Crossing without causing delay to a train.
- (e) During the time the Signal-box is closed, or when it is necessary for the Signalman to leave his Box whilst on duty, the Gates must be left open for road traffic, and the Tramway Disc Signals turned off. The Signalman must not reverse a Disc Signal against an approaching Tram except in case of urgency.
- 2. In the event of a derailment or accident, from any cause, to a Tram Car at a Level Crossing, the Station-master or other responsible employe must obtain the name of the Driver in charge of the Tram Car, the distinguishing number of the car and time of car trip, which, with full particulars of injuries or damage, must be specified in his report.
- 3. Disc Signals governing the movement of Tram Cars are provided at the Level Crossings shown hereunder:—

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North Carlton Kooyong Gardiner Riversdale Glen Huntly Elsternwick	3 3 	1680 ::: = :::	Lygon Street Glenferrie Road Burke Road Riversdale Road Glen Huntly Road Glen Huntly Road		
Flemington Racecourse Line			Epsom Road	At Epsom Road the Gates are not interlocked, and, except on Race Days, there is no one in charge of the Crossing. See Special Instruction page 605.	

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See allacher draft-

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When a Tramway Disc Signal becomes defective or is not working efficiently, a competent man must be placed at such Signal to act under the instructions of the Signalman; the Hand Signalman must stand adjacent to the Tramway track and exhibit a Red Hand Signal to stop any approaching tram clear of the Derail Points or Boat, when he must inform the Motorman and Conductor that the Signal is defective; the Motorman on seeing the Hand Signal must bring his tram to a stand but must not pass the defective Signal unless directed to do so by his Conductor in conformity with the following directions:-

ward and verbally ascertain from the Signalman whether the tram may preced over the Level Crossing; if the Signalman give such permission, he must exhibit aggreen Signal until the tram has passed on to the Crossing; but the Motorman must not proceed towards the Crossing until he has been verbally instructed to do so by his Conductor, who before giving such permission, must satisfy himself that the Derail Points or Stop Bolt is properly set for the tram to proceed towards the Crossing.

If the defective Signal can be placed to the Stop position, it must be secured at that position, in which case, the Hand Signalman shall not be required, but the Driver and Conductor must act as laid down above.

- (b) The Signalman must not give permission for the tram to pass the defective Signal until the Derail Points or Stop-bolt is properly set for the tram to proceed, and, to obtain the security of the interlocking, he must, if practicable, work the lever applicable to the Signal even though the Signal may remain at the Stop position.
- 5. (a) In the event of a disarrangement of the overhead electric equipment of the Railway or Tramway system, the Signals must be exhibited to stop trains and trams until the Signalman has seen that the traffic can pass in safety.

The men in charge of trams or vehicles must be informed of the circumstances, when from any cause the Crossing is to be kept closed against Tramway and vehicular traffic.

- In the event of a derailment or accident, from any cause, to a tram at the Level Crossing, the Station-master or other responsible employe must obtain the name of the Motorman in charge of the tram, the distinguishing number of the car and time of car trip, which, with full particulars of injuries or damage, must be specified in his report.
- 7. During the time the Signal-box is closed, or when it is necessary for the Signalman to leave his Box whilst on duty, the Gates must be left open for road traffic, and the Tramway Disc Signals turned off.

The Signalman must not reverse a Signal against an approaching tram except in a case of special urgency.

8. Tramway Disc Signals are provided at the Level Crossings specified hereunder:-

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19/19223

Melbourne,

7th July,1921.

Memo:

NORTH FITZROY

25-454

Signalling Tramway Traffic - St.Georges Road (18223) (Correspondence 18 22454)

l. (a) Perusing this correspondence I notice that the third paragraph of the Tramway Manager's Special Instruction to the Gripmen respecting the Automatic Tram-stop suggests that a Gripman might attempt to proceed on to the Crossing whilst the gates are being closed across the tramway: this contemplates that the Gripman may disregard the Fixed Signal provided for the Trams.

(b) To accept any movement of the Gates (opening or closing) as an indication to proceed would be very improper. It sometimes happens that during a strong wind the gates do not engage with the Gate-stops when the gates are closed across the tramway, and in such cases the Signalman may have to reverse the gates for a second effort to close them.

(c) As the Gates and Fixed Signals controlling tramway traffic are interlocked it would be more consistent and perhaps, more effective if the Gripman was instructed to remain at the Stop-mark until the Fixed Signal is set for the Tram to proceed.

(d) The paragraph referred to reads as follows .-

" WHEN APPROACHING THIS RAILWAY CROSSING IN EITHER DIRECTION

" CRIPMEN MUST ALWAYS STOP THEIR TRAINS AT THE FULL STOP MARK

" AND IF WHEN READY TO START THE SIGNALMAN HAS BEGUN TO CLOSE " THE RAILWAY GATES THEY MUST REMAIN AT THE STOP MARK UNTIL

" THE GATES ARE FULLY OPEN AGAIN"

2. (a) In the third paragraph of the arrangements set down in the Engineer of Signals' memo (854/18) dated 17th August, tramway employed are directed to notify the Signal Supervisor, North Melbourne, of any defect observed. It would be more effective and quite necessary for the tramway employes to at once notify the Signalman who in the ordinary course of his duties is obliged to notify the district Repairman.

(b) In the fifth paragraph the exhibition of a Green Hand Signal (Flag or Light) by the Signalman is prescribed as indicating that the Tramway signal is defective, and authority for the tram to proceed The Signalman, St. Georges Road may require to use his Green Hand Signal for their purposes at night, and this may lead to some misunderstanding; according to Clause (b) of our Regulation 95, a Hand Signalman must be appointed in the event of a Tramway Signal being defective and Gripmen should not pass the defective signal unless verbally instructed to do so: Clause (c) of 95 provides for the Signalman performing this duty until the Hand Signalman arrives.

3. Beyond the need for informing tramway men and our employes of the existence and principles of the Automatic Tram-stop the apparatus does not open up any new aspect in signalling, but whilst we have instructions to Signalman (page 194 General Appendix - copy attached) no obligations are placed on tramway employes: It seems necessary that instructions for Tramway men in respect of Railway Crossings should be standardised.

Per Sup't Goods Train Service.

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19/19223

Melbourne, 7th July,1921.

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Per Sup't Goods Train Service.

J & Beng Snopen

FITZROY NORTH -0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-

St.Georges Road Signalling Tramway Traffic -(Correspondence 18 22454)

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Beyond the need for informing tramway men and our employes of the existence and principles of the Automatic Tram-stop, the apparatus does not open up any new aspect in signalling, but whilst we have instructions to Signalman (page 194 General Appendix - copy attached) no obligations are placed on tramway employes: It seems necessary that instructions for Tramway men in respect of Railway Crossings should be

standardised.

ENERAL SUPERINTENDENT, per Sup't Goods Train Service. J & Bear

Sir,

Adverting to the payment by the Board of an amount of £39: 0: 0 in connection with the provision of a stopbolt across the gripslot at St George's Road Tramway crossing North Fitzroy, I beg to inform you that the total cost of the work carried out at the crossing has been ascertained to be £241:12: 2. An estimate of £89 for safety appliances was furnished to the Board on 16.8.19 and further work for which no estimate was furnished, was carried out at the request of the Board.

The charge for the maintenance of the operating gear amounts to £2:10: O per annum, the first charge for which has been computed to 30th November 1921, and after allowing for this, and the cost of the abovementioned work, there is a bahance of £205: 2: 2 due by the Board for which an account is forwarded herewith.

I shall be glad to receive a cheque for the amount (£205: 2: 2) at your early convenience.

Yours faithfully,

The General Manager,

Melbourne & Metropolitan Tramways Board,

673 Bourke Street,

MELBOURNE.

Melbourne and

Metropolitan Tramways Board.

673 Bourke Street.

Melbourne 4th June 1920.

SECRETARY -8 JUN 1920

The Secretary,
Victorian Railways,
MELBOURNE.

Sir,

In connection with the Signal gear erected by your Department, in response to the request in our letter of August 21st last, at the Railway crossing, St. Georges Road, Fitzroy, and about which we have had interviews with your Engineer of Signals, I now write to ask that alterations be made in the gear, as it does not prove to be satisfactory.

We would like it altered so that up and down train traffic could be under separate control and so interlocked that Signals must be operated before the gates can be swung against a tram, with a short interval of time between.

Will you please have this done expeditiously.

Yours faithfully,

Mr. Mc & wer.

Manager, Cable System.



H. A. WILCOX, GENERAL MANAGER. W.O. STRANGWARD, SECRETARY.

Tramway Board,

673 Bourke Street.

Melbourne.

August 21st, 1919

The Secretary,
Victorian Railways,
MELBOURNE.

SECRETARY 22.AUG 1919

Sir,

Adverting to your letter of the 16th inst. enclosing blue print of plan of Safety Appliances which your Commissioners are prepared to put up at the Tramway and Railway Crossing, North Fitzroy, at a cost approximately of £89, I have to inform you that we approve of the plan, and that this Board will bear the expense of the erection and the cost of lighting same.

Please have the work gone on with and the apparatus installed as soon as can be conveniently done.

I am, Sir,

Your obedient servant

General

16th August 1919.

118/18223.

Sir,

and to previous correspondence, in regard to the provision of safety appliances at the St. George's Road tramway crossing, North Fitzroy, I am directed to intimate that suitable signals to act in conjunction with the stop blocks could be installed, as shown on the attached plan, at an estimated cost of £89, but your Board, in addition to paying the actual cost of such work, would require to arrange for the necessary connections to the City Council's lighting main; undertake the maintenance of the electric lamps, and pay the cost of the current, and on receipt of advice that your Board is prepared to pay the actual cost of the work to be performed by the Department, whether more or less than the estimate, the necessary arrangements will be made.

I have the honor to be Sir, Your obedient servant

Secretary.

The General Manager, Tramway Board, 673 Bourke Street, MELBOURNE.

SPECIAL NOTICE TO GRIPMEN AND CONDUCTORS

NEW PRECAUTION AT RAILWAY CROSSING.

To prevent the possibility of a Tramcar running into the Railway Gates at the Main Railway Crossing, St.George's Road, in case of a stranded rope, and so perhaps fouling a Railway Train, causing probably a terrible accident, a new appliance has been installed, which will work as follows:-

When the Railway Gates are closed by the Railway Signalman on the approach of a Railway Train, a steel bar (which will be worked by the gates) will be drawn across the slots of the Up track on the North side of the crossing and of the Down track on the South side.

No grip can pass this steel bar, which will be a few feet in advance of the Full S top Mark on each track.

When approaching this Railway Crossing in either direction, Gripmen must ALWAYS STOP THEIR TRAINS at the Full Stop Mark, and if when ready to start the Signalman has begun to close the railway gates they MUST REMAIN at the Stop Mark UNTIL THE GATES ARE FULLY OPEN AGAIN.

The steel bars will be across the slots from the time when the GATES BEGIN TO CLOSE UNTIL they ARE AGAIN FULLY OPEN.

Any grip striking these bars when they are across the slots will be smashed, with great danger of injuring the men in charge and passengers. Hence the need of OBSERVING THIS INSTRUCTION MOST CAREFULLY.

/ /19. Fitzroy.

General Manager.