SOMERSAULT

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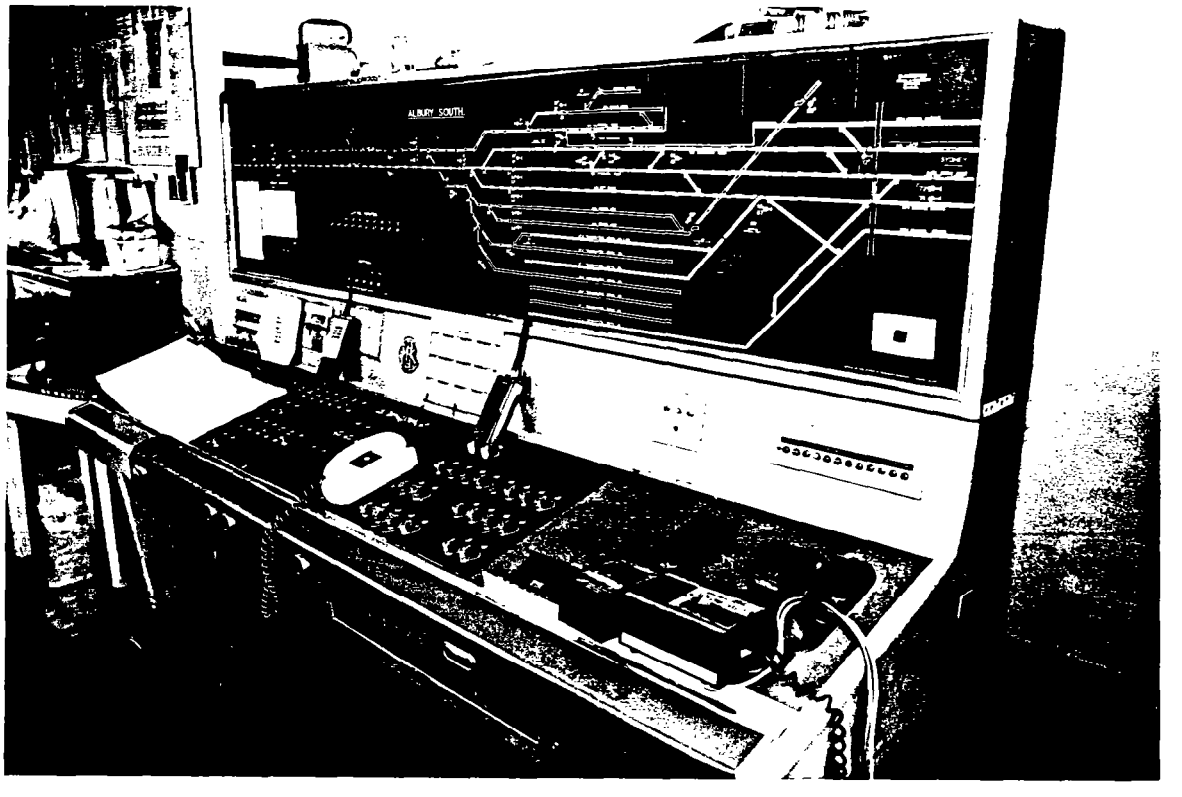
SIGNALLING RECORD SOCIETY OF VICTORIA INC



Dating from May 1962, the panel in Albury South Box (NSW) works the Standard and Broad Gauge connections at the Victorian end of Albury (NSW). The current box at Albury South replaced an 1887 mechanical box and is a monument to State/Federal rivalry. The new box was paid for by the Federal government as part of the new Standard Gauge line to Melbourne. However, neither the Feds or NSW would pay for the resignalling of the north end of Albury yard which continues to this day to be worked from the original 1887 Albury Station box (albeit with a replacement NSW standard frame). The 'relay interlocking control unit' at Albury South is of the 'rotary lever type', and was made by McKenzie and Holland. Unlike Victorian panels, where each signal is operated by one lever, this NSW panel has separate signal levers for each route past a signal. Safeworking southward over the border on both the Standard and Broad Gauge is by the Victorian Automatic and Track Control system to Wodonga A (Wodonga Coal Sidings if switched in). Photo: Andrew Waugh

SOCIETY CONTACT INFORMATION:

EDITOR: Andrew Waugh, c/o CSIRO, 723 Swanston St, Carlton, 3053.
Phone (03) 9457 3795 (AH), (03) 9282 2615 (BH) Fax (03) 9282 2600

MANAGING EDITOR: David Langley, P.O. Box 8, Avenel, 3664,
Phone (03) 5796 2337 (AH), (03) 5792 3288 (BH)

PRESIDENT: Alan Jungwirth,
29 Clements St, East Bentleigh, 3165, Phone (03) 9563 7287 (AH)

SECRETARY and MEMBERSHIP OFFICER: Glenn Cumming,
19 Peace St, Glen Iris, 3146. Phone (03) 9885 8546 (AH), (03) 9623 2289 (BH),

NSW PRESIDENT: Don Allitt,
8 Whites Ridge Road, Annangrove, NSW, 2156. Phone (02) 9679 1741

NSW GROUP SECRETARY: Bob Taaffe,
12 Western Crescent, Westleigh, 2120, Phone: (02) 9481 9994.

MINUTES OF ANNUAL GENERAL MEETING HELD FRIDAY MARCH 21, 1997

Present:- A.Jungwirth, J.Churchward, G.Cumming, A.Gostling, M.Guiney, W.Johnston, K.Lambert, D.Langley, B.McCurry, J.McLean, G.O'Flynn & P.Silva.

Apologies:- G.Inglis, W.McSween & L.Savage.

The President, Mr. Alan Jungwirth, took the chair and opened the meeting @ 2011 hrs.

Minutes of the 1996 Annual General Meeting:- Accepted as published. W.Johnston/J.McLean. Carried.

Matters Arising:- Nil.

President's Report:- Alan Jungwirth reported that the society had enjoyed another good year. G.Cumming/P.Silva. Carried.

Treasurer's Report:- The Treasurer's Report was held over due to the unavailability of the financial statements.

Auditor's Report:- The Auditor's Report was held over due to the unavailability of the financial statements.

Editorial Report:- No report was forthcoming at this time.

Tours Report:- Glenn Cumming reported on the successful tour held during the year. G.Cumming/G.O'Flynn. Carried.

Elections:- The following written nominations were received :-

President:- A.Jungwirth, nominated by N.Bamford and seconded by K.Lambert.

Treasurer:- P.Silva, nominated by J.McLean and seconded by J.Churchward.

Secretary:- G.Cumming, nominated by A.Jungwirth and seconded by K.Lambert.

The following verbal nominations were received:-

Vice President:- D.Langley, nominated by P.Silva and seconded by G.O'Flynn.

Committeeman:- J.McLean, nominated by J.Churchward and seconded by M.Guiney.

Committeeman:- G.Inglis, nominated by J.McLean and seconded by B.McCurry.

There being no further nominations, all nominees were duly elected to their positions.

General Business:- A discussion took place about current subscription rates and future subscription rates.

Meeting adjourned @ 2033 hrs.

The Annual General Meeting was adjourned until Friday May 16, 1997.

MINUTES OF RESUMED ANNUAL GENERAL MEETING HELD FRIDAY MAY 16, 1997

Present:- A.Jungwirth, W.Brook, J.Churchward, G.Cumming, M.Guiney, C.Guy, W.Johnston, K.Lambert, B.McCurry, J.McLean, L.Savage, P.Silva & A.Waugh.

Apologies:- R.Cropley, D.Langley & G.O'Flynn.

Visitor:- W.McKerracher.

The President, Mr. Alan Jungwirth, took the chair and opened the meeting @ 2154 hrs.

Treasurer's Report:- Peter Silva presented the Treasurer's Report and the financial statements for the year ended 31.12.1996. Peter gave explanations for the positive financial result. P.Silva / A.Waugh. Carried.

Auditor's Report:- Jon Churchward presented the Auditor's Report. J.Churchward / J.McLean.

Editorial Report:- No report was presented.

General Business:- Glenn Cumming asked Jack McLean about the future of the hall for meetings. Jack suggested that the hall may become unavailable within 12 months.

Meeting closed @ 2208 hrs.

MINUTES OF MEETING HELD FRIDAY FEBRUARY 20, 1998.

Present:- A.Jungwirth, J.Black, W.Brook, J.Churchward, G.Cumming, A.Gostling, M.Guiney, C.Guy, W.Johnston, K.Lambert, B.McCurry, J.McLean, R.Murray, L.Savage, P.Silva & A.Waugh.

Apologies:- A.Hinde & D.Langley.

Visitor:- J.Blakeborough & G.Candy.

The President, Mr. Alan Jungwirth, took the chair and opened the meeting @ 2019 hrs.

Minutes of the November 1997 Meeting:- Accepted as published. J.McLean / C.Guy. Carried.

Business Arising:- Nil.

Correspondence:- A letter from the church confirms our rental for 1998 at the same cost as 1997.
G.Cumming / P.Silva.

General Business:- The tour to New Zealand has 15 participants so far.

The Secretary reminded the members that subscriptions for 1998 are now due.

The Secretary reminded the members of the Annual General Meeting next month.

Alan Jungwirth advised members of the handover of the remaining government buses on Sunday 15.03.1998. There will be a tour on Saturday 14.03.1998 of government bus routes using ex government buses.

Keith Lambert & Andrew Waugh reported on the latest developments on the Upfield Line. North Melbourne to Flemington Bridge will return to service on Monday.

A special train will run on Sunday to test track & signal circuits.

The home signals at Flemington Bridge will be removed & the crossover will be spiked.

The pit at Macaulay has been relaid & track machines have been working between North Melbourne & Flemington Bridge.

Upfield Line trains ran between Royal Park & Coburg on the Up Line only over the long weekend in January on account of bridgework between Flemington Bridge & Royal Park.

Keith Lambert reported on the provision of three additional mechanical signals at Flemington Racecourse to allow trains to arrive direct into Nos.2 & 3 Roads for stabling purposes.

Jack McLean spoke about the numbering of signal diagrams in 1997. High numbers were used but there were many gaps because not all were issued.

Keith Lambert reported on the JRP. Camberwell Stabling Sidings were brought into service on Monday 05.01.1998. Westall sidings are due to be used as from Monday 23.02.1998. The Oakleigh Sidings at Flinders Street will be abolished this weekend. The signalling at Westall is in service except for the motorised gates. Flinders Street Yard will close in late March 1998. Bayswater is due to be commissioned in one month.

Glenn Cumming reported on the introduction of Train Orders in New South Wales between Orange & Dubbo on Monday 01.12.1997, about 5 ½ years late. Orange to Parkes will be next, due in March 1998.

Syllabus Item:- The President introduced member Keith Lambert. Keith presented a short syllabus item featuring selections from his slide collection. A selection of old & brand new views were seen including some "before & after" shots, all of which were enjoyed by everyone present.

At the conclusion of the syllabus item, The President thanked Keith for the entertainment and this was followed by acclamation from those present.

Meeting closed @ 2305 hrs.

The next meeting will be on Friday 20 March, 1998 at the Uniting Church Hall, Hotham Street, Mont Albert, commencing at 2000 hours (8.00 pm).

SIGNALLING ALTERATIONS

The following alterations were published in WN 36/97 to WN 48/97 (the last issue of 1997). The alterations have been edited to conserve space. Dates in parenthesis are the dates of the Weekly Notice.

(23.09.1997) **Section Authority Workstations; Administrative Procedures**

Archive/Trip Expire

It is necessary to perform the Archive (which saves the log files to tape and copies the database) and Trip Expire (which deletes all trips older than a set time) functions periodically to maintain the operation of the workstations. These functions will be performed on Monday, Wednesday, Friday, and Saturday. As these

functions require the workstations to be shut down, these functions must be performed under the supervision of the System Safety Officer (SSO).

The best time to perform an Archive/Trip Expire will be established by the SSO in consultation with the Train Controller. The SSO will prepare a checklist of all trains and track vehicles operating over the Section Authority Territory. The Train Controller must advise the Drivers of all trains that an Archive/Trip Expire is to be performed and the expected duration of the procedure. Drivers must not use the LSDU until advised that the Archive/Trip Expire has been completed.

The Train Controller must then print all the Train Graphs and check the printed copies against the Electronic Train Graphs. The SSO must check the printed copies against the checklist.

The Workstation will then be shut down. The Train to Base Radio will not work while the workstation is shut down. Drivers are to proceed as indicated on their Current and Next Section Authorities.

When the Technical Administration Adviser informs the SSO that the Archive/Trip Expire has been completed, the SSO will instruct the Train Controller to log into the Workstation. The SSO and Train Controller must confirm the details on the Electronic Train Graph with the printed paper graph, and the SSO with the train movements on the checklist. The paper graph must be endorsed when the check is complete. The Train Controller must endorse on the Electronic Train Graph (at North Geelong C) that a Archive/Trip Expire has been carried out. The Train Controller must advise the Driver of every train that the Archive/Trip Expire has been completed and that normal operations have been resumed.

Data Blanking

Data Blanking is performed whenever it is necessary to make any alterations to the Section Authority Software, including alterations to geography. The operation deletes all information in the workstation.

Data Blanking must not be performed unless seven days notice is given to the Superintendent Safeworking, and an SW circular has been issued giving the procedure.

The Workstation must not be shut down until every train is stationary at a Crossing Station or Loop and all outstanding authorities have been returned to the Workstation. When the Workstation has been restarted, the Train Controller must re-enter all active trains, re-assign their locomotives, and update the location reports. The Train Controller must read the screens of the LSDUs of all leading locomotives to ensure that there are no outstanding authorities in any of the LSDUs. (SW 327/97, WN 36/97)

26.09.1997 **Eaglehawk**

From Friday, 26.9.97, the lamps on the Up Home signals have been replaced by reflective blinders.

(SW 362/97, WN 39/97)

28.09.1997 **Gowrie**

On Sunday, 28.9.97, Gowrie was disestablished as a Staff station. The Train Staff and Ticket section Fawkner - Upfield replaced the sections Fawkner - Gowrie and Gowrie - Upfield.

The panel was abolished. Posts 68, 70 and 71 and Points F were abolished. Post 69 was converted to an Up Two Position Automatic and renumbered C.574.

Amend Diagram 23/97. (SW 340/97 & SW 348/97, WN 37/97 & 38/97)

(30.09.1997) **Newmarket - Failure of Signals**

Newmarket Switched In

Should Homes 34, 42, or 48 be at Stop with no train in advance of the signal, the Driver must contact the Signaller at Kensington. If the points are detected in the correct position for the move, the Signaller must complete a Signaller's Caution Order (2377) and dictate it to the Driver. Should Dwarfs 44 or 46 fail and the points are detected in the correct position, the Signaller will verbally instruct the Driver to pass the signal at Stop. If point detection is lost, a Signal Maintenance Technician must attend to operate the points to the required position and secure them with a point clip. The Signaller may then issue a Caution Order.

Should Home 36 be at Stop with no train in advance of the signal, the Driver must contact the Signaller at Kensington. If the line is clear to the next signal, the Signaller will give verbal authority to pass the signal at Stop.

Newmarket Switched Out

Should Newmarket be switched out when Homes 34 or 48 fail and the illuminated letter A is not illuminated, the Driver must contact the Signaller at Kensington. If the points are correctly detected, the Signaller will give verbal authority to pass the signal at Stop. Should Kensington be switched out when Homes 34, 36, or 48 fail, the Rules 12b and 12c, Section 2, Book of Rules will apply.

(SW 341/97, WN 37/97)

05.10.1997 **Newport - Werribee**

Commencing Sunday 5.10.97, the East and West Lines between Newport South and Werribee and the Westona Line were transferred from Centrol to Metrol.

The Signaller Newport is responsible for issuing ATC Caution Orders for the Altona Junction - Laverton sections.

The Signallers Newport and Werribee are responsible for issuing System Caution Orders for the Laverton - Werribee sections. When the Home Departure signals at Laverton or Werribee fail, Down trains must be routed via the East Line and Up trains via the West line between Laverton and Werribee. Should the East

Line Down Departure signal at Laverton or the West Line Up Departure signal at Werribee fail, the Signallers at Werribee and Newport must confer. Rules 6 & 7, Section 16, Book of Rules will apply. It will not be necessary to use Form 2382 for this section. The opposing Home Departure Signal must be sleeved and a note to this effect made in both TRBs for each train issued with a Caution Order.(SW 337/97, WN 38/97)

(07.10.1997) **Oakleigh**

Siding C has been reduced in length from 317 metres to 278 metres. Amend Diagram 11/85.

(SW 348/97, WN 38/97)

11.10.1997 **Flinders Street**

On Saturday, 11.10.97, the entrances to the Goods Siding and Test Track at Jolimont Junction were abolished. Dwarf 994 (Goods Siding to Main Lines or Test Track), Crossover 894 (lead to Goods Sidings), and Dwarf 991 (Test Track to Goods Siding) were abolished. Dwarf 996 (Test Track to Test Track Spur), Crossover 895 (Test Track Spur to Main Lines) and Dwarf 995 (Test Track Spur to Main Lines or Test Track) were abolished. (SW 363/97, WN 39/97)

12.10.1997 **Control**

In conjunction with the installation of the Section Authority System between Donald and Yelta, the assignment of lines to Train Control Rooms has been altered:

Room 2	Dunolly - Robinvale	Maryborough - Castlemaine
	Korong Vale - Kulwin	Ouyen - Panitya
	Ararat - Maryborough	
Room 4	North Geelong C - Yelta	Maroona - Portland
Room 5	Seymour - Tocumwal	Shepparton - Dookie
	Strathmerton - Cobram	Benalla - Oaklands

(SW 360/97, WN 39/97)

12.10.1997 **Donald - Mildura - Yelta**

From Sunday, 12.10.97, the Section Authority System Donald - Yelta replaced the Train Order System between Donald - Mildura and the Train Staff and Ticket System Mildura - Yelta. The single line sections are: Donald - Watchem - Birchip - Curyo Block Point - Woomelang - Gama Block Point - Speed - Ouyen - Hattah - Carwarp - Yatpool Block Point - Irymple - Mildura - Yelta.

The instructions in SW 325/97 are cancelled and the following extended instructions apply:

North Geelong C

The 'Commence Section Authority Territory' boards are located adjacent to Post 40 and are applicable to Broad Gauge trains only. A Shunt Authority to shunt outside the Home signal must not be issued at North Geelong C. Dwarfs 48 and 50 will display 'Clear Low Speed' for movements to the main line. The Driver may resume normal speed once the last vehicle has cleared the points. The Train Controller must inform the Signaller North Geelong C whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Meredith

Meredith is a Switch In/Out location, when switched out the section will be Lethbridge Block Point - Lal Lal Block Point. When switching in or out, the Train Controller must ensure that no Section Authorities are outstanding between Lethbridge Block Point - Meredith - Lal Lal Block Point. The Train Controller must not switch Meredith in until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Meredith has been switched out in the Workstation. Notes must be made in the TRB and Electronic Train Graph when Meredith switches in or out.

The Train Controller must inform the Signaller Meredith whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Ballarat

Ballarat is an 'Attended Crossing Station' and must be attended for all train movements.

The 'Commence/End Section Authority Territory' boards for the Melbourne line are located at Post 52. It is not necessary to issue a Section Authority for a train from the Melbourne line to enter Ballarat.

When a Medium Speed indication is displayed on Post 6, the speed restriction only applies until the train has cleared the points.

The Train Controller must inform the Signaller Ballarat whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Maryborough

Maryborough is an 'Attended Crossing Station' and must be attended for all train movements. Maryborough must not be switched out for DICE operation or closed in the Workstation.

The 'Commence/End Section Authority Territory' boards for the Ararat line are located at Post 2, and for the Castlemaine line at Post 24. It is not necessary to issue a Section Authority for a train from the Ararat or Castlemaine lines to enter Maryborough.

When a Low Speed indication is displayed on Dwarfs 14, 16, or 18, the speed restriction only applies until the train has cleared the points.

The Train Controller must inform the Signaller Maryborough whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Dunolly

Dunolly is an Open/Close location. When closed, Dunolly is a Trailable Points Loop and the Section Authorities will be to 'DUNOLLY LP'. When open, Dunolly is an Attended Crossing Station and the Section Authorities will be to 'DUNOLLY'. Dunolly cannot be opened while a train with a Directional Block is standing at Dunolly. Dunolly must not be closed while a train is standing in the Loop or on the Main Line. Shunting movements must not be allowed to foul the Loop or Main Line when Dunolly is closed.

When opening or closing Dunolly, the Train Controller must ensure that no Section Authorities are outstanding between Maryborough - Dunolly - Emu. The Train Controller must not open Dunolly until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Dunolly has been closed out in the Workstation. Notes must be made in the TRB and Electronic Train Graph when Dunolly opens or closes.

The 'Commence/End Section Authority Territory' boards for the Korong Vale line are located at Post 7. Dunolly must be open before a Section Authority can be issued for a Down Korong Vale line train to leave Maryborough. Dunolly need not be open or attended prior to a Train Order being issued for an Up Korong Vale line train to leave Arnold Block Point, but Dunolly must be open prior to admitting the train to Dunolly yard. It is not necessary to issue a Section Authority for a train from the Korong Vale line to enter Dunolly.

Dunolly must be open before a Section Authority can be issued for a Standard Gauge train to proceed to or from Maryborough. The Section Authority for a Down train from Maryborough may be relinquished once the train is clear of D points. The locomotive will then be detached from the train and unloading operations commenced. Once all the vehicles have been unloaded, the locomotive will draw the vehicles forward until they are clear of J points. The locomotive will then run around via H points, the Main Line, and J points. The Signaller will then reverse D points using an ST21 key to allow the train to depart. Only one Standard Gauge train may work Dunolly at a time.

The Train Controller must inform the Signaller Dunolly whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Donald

Donald is an Open/Close location. When closed, Donald is a Trailable Points Loop and the Section Authorities will be to 'DONALD LP'. When open, Donald is an Attended Crossing Station and the Section Authorities will be to 'DONALD'.

When opening or closing Donald, the Train Controller must ensure that no Section Authorities are outstanding between Watchem - Donald Loop - Sutherland. The Train Controller must not open Donald until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Donald has been closed out in the Workstation. Notes must be made in the TRB and Electronic Train Graph when Donald opens or closes.

Donald must be open for all trains shunting at Donald. Donald cannot be opened while a train with a Directional Block is standing at Donald. When open, it will not be necessary to issue a Section Authority for a train to proceed from Donald Loop to Donald station or vice versa. Donald must not be closed while a train is standing in the Loop, on the Main Line, or in No 1 Track. Shunting movements must not be allowed to foul the Loop, Main Line, or No 1 Track when Dunolly is closed.

When Donald is closed, Home E on Post 2 will be operated by the Driver of a Down train using DICE. The Driver must be in possession of a DONALD LP - WATCHEM Section Authority before entering the DICE code for Home E. The DICE code is displayed on the DICE Approach Zone Board and the DICE Subsidiary Board. DICE operation is selected by means of the Remote/Local keyswitch at Donald.

The Train Controller must inform the Signaller Donald whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Ouyen

Ouyen is an Open/Close location. When closed, Ouyen is a Block Point and the Section Authorities will be to 'OUYEN BP'. When open, Ouyen is an Attended Crossing Station and the Section Authorities will be to 'OUYEN'. Ouyen must be open for all Mildura line trains which originate or terminate at Ouyen. When Ouyen is closed, no shunting movements must be allowed to foul No 1 Track, nor can Ouyen be closed while a train is standing in No 1 Track.

When opening or closing Ouyen, the Train Controller must ensure that no Section Authorities are outstanding between Speed - Ouyen - Hattah. The Train Controller must not open Ouyen until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Ouyen has been closed out in the Workstation.

Hattah

Hattah is an Open/Close location. When closed, Hattah is a Block Point and the Section Authorities will be to 'HATTAH BP'. When open, Hattah is an Attended Crossing Station and the Section Authorities will be to 'HATTAH'. When Hattah is closed, no shunting movements must be allowed to foul No 1 Track, nor can Hattah be closed while a train is standing in No 1 Track.

When opening or closing Hattah, the Train Controller must ensure that no Section Authorities are outstanding between Ouyen - Hattah - Carwarp. The Train Controller must not open Hattah until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Hattah has been closed out in the Workstation. Notes must be made in the TRB and Electronic Train Graph when Hattah opens or closes.

The Train Controller must inform the Signaller Hattah whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Irymple

Irymple is a Switch In/Out location, when switched out the section will be Yatpool Block Point - Mildura Irymple must not be switched in unless authorised by the Superintended Safeworking.

Irymple must not be switched out while No 1 Track is occupied. When switched out, a train must not foul No 1 Track unless in possession of a Section Authority for the Mildura - Yatpool Block Point section.

When switching in or out, the Train Controller must ensure that no Section Authorities are outstanding between Yatpool Block Point - Irymple - Mildura. The Train Controller must not switch Irymple in until the Signaller advises that the signals have been restored to Stop, and the Signaller must not clear the signals when switching out until the Train Controller advises that Irymple has been switched out in the Workstation. Notes must be made in the TRB and Electronic Train Graph when Irymple switches in or out.

The Train Controller must inform the Signaller Irymple whenever a train departs the crossing location in the rear, or when a road/rail vehicle is granted permission.

Mildura

Mildura is an Attended Crossing Station, but Driver in Charge conditions will apply for the arrival of Train 9139 Tuesdays to Fridays. Prior to ceasing duty, the Signaller must clear Homes K, A, and D. Upon arrival of 9139 the Driver must ensure the train has arrived complete, relinquish the Section Authority, secure the train, and lock away the Master Key and radio is the box in the Train Crew radio room.

Yelta

Yelta is a Section Authority Terminal Station. There are no fixed signals and the points are secured by Hand Locking Bar and padlock. Commence/End Section Authority boards are located 450 metres outside the Up end points and this point is defined as Station Limits.

The Driver will be in charge of signalling for all trains at Yelta. The Driver of a Down train must not relinquish the Mildura - Yelta Section Authority until the train is complete within the End Section Authority Board. No part of the train may foul the line outside the Commence Section Authority board unless a Section or Shunt Authority has been issued for the Yelta - Mildura section. It will not be necessary for the Driver to obtain an ETM sighting before pressing the 'Depart' button when the train leaves Yelta. However, the Section Authority must not be relinquished at Mildura until it has been checked that the train has arrived complete.

Track permission for Road/Rail vehicles will only apply to the End Section Authority board at Yelta. The Road/Rail vehicle must not enter Yelta if there is a train there. (SW 354/97, WN 39/97)

13.10.1997 **Union Switch End of Train Telemetry System**

From Monday, 13.10.97, NR trains will begin to use this system instead ETAS.

The Union Switch system indicates the brake pipe pressure at the end of the train and provides the ability to make an emergency application at the end of the train. It also indicates if the end of train is moving (and, if so, in what direction).

When brake pipe pressure is constant, the End of Train Unit (Sense and Brake Unit or SBU) transmits the pressure every 55 to 65 seconds. Pressure measurements are sent more frequently when the brake pipe pressure is changing, the frequency depends on the rate of pressure change and the variation between the front and rear of the train. If no message is received for 341 seconds the 'R to F Failure' light illuminates and the pressure display shows '-'. The locomotive unit (Communication Display Unit or CDU) also sends a test message to the SBU every 10 minutes. If no reply is received, a messages are sent 15 seconds, 375 seconds, and 390 seconds later. If no reply is received the 'F to R Failure' light illuminates.

When the Emergency Brake Switch is pressed, the emergency valve of the SBU will open for 90 seconds. The application may be terminated before 90 seconds by pressing the Test Button. If the SBU fails to respond, the CDU will continue to send the message for 2 minutes and then the CDU will show 'Emergency Brake Failed'. (SW 364/97, WN 40/97)

(14.10.1997) **Spencer Street No 1 Box - Failure of signals at Moonee Ponds Creek Junction**

[illegible] Box via radio. If the points are correctly detected, the Driver must be instructed to inspect the points

case of a Home signal) or a verbal authority (in the case of a Dwarf). The Driver will not take down the details of the Caution Order. (SW 356/97, WN 39/97)

(14.10.1997) **Dennington**

A Rail Tractor has been provided and will be operated by Nestle employees.

Dennington yard consists of a loop siding (170 metres clear) with a 130 metre dead end discharge track leading from the loop. The head shunt is also 130 metres in length. There is a Derail situated on the Main Line at the Drummond Street level crossing. The Derail is normally locked on the rail with a V5PSW padlock, but also has provision for being locked on by a second padlock. A notice board is erected on the Up side of the crossing lettered 'Locomotives must not pass this point until the gate is opened and derail block is removed'. A second notice board is erected on the Down side of the crossing lettered 'Limit of Nestle Rail Tractor operation'.

Before operating the Rail Tractor, the Nestle operator must apply an independent padlock to the Derail. The padlock must be removed when shunting operations have been completed. (SW 355/97, WN 39/97)

20.10.1997 **Flinders Street**

From Monday, 20.10.97, the new connections between the Through Suburban lines and Nos 9A and 10 Tracks were provided.

Crossover 644 (Through Suburban Lines to Tracks 9A and 10) and Points 648 (to Track 10) were commissioned and then spiked normal until JZA equipment is commissioned. Homes 946 (Along Platform 10 towards Home 948) and 941 (From Platform 10 to Down Through Suburban Line) were commissioned. Dwarf 750 (Down Through Suburban Line to Tracks 7, 8, 9, or 9A) was removed.

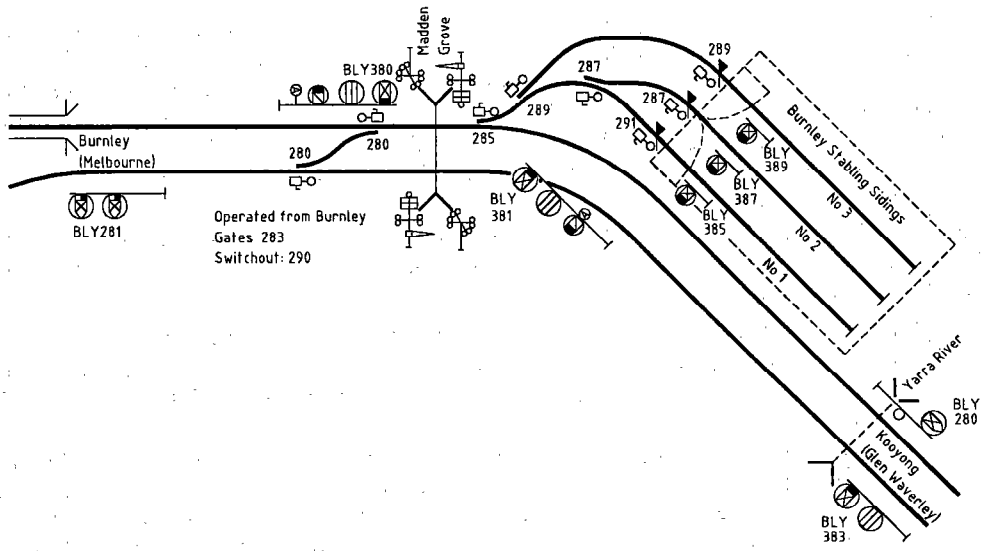
Diagram 75/97 replaced 21/97. (SW 371/97, WN 41/97)

(21.10.1997) **Newport**

A direct telephone line has been provided between Newport signalbox and the Altona Petrochemical Group Main Control Room. The phone will be used to notify the Signaller if any emergency requiring trains to be halted occurs. If such an emergency occurs, the Signaller must place all signals leading to the affected lines at Stop, notify the Train Controller, and the Drivers of all trains within the affected area. All trains within the affected area must be stopped unless otherwise directed. The company must test the phone line at 1100 each day, and the results of the test recorded in the TRB. (SW 365/97, WN 40/97)

24.10.1997 **Burnley**

Commencing Friday, 24.10.97, the Burnley Stabling sidings were brought into use. The three sidings are situated on Down side of the Glen Waverley line between Madden Grove and the Yarra River. The connections to the stabling siding are worked from Burnley.



Trailing Main Line Crossover 280 was provided on the Up side of Madden Grove. Facing Points 285 leading to the Sidings were provided in the Down Main Line on the Down side of Madden Grove. Points 287 lead to Siding 2 and 289 lead to Siding 3. Derails and Crowders 287, 289, and 291 were provided in each siding. All points are operated by dual control electric point machines, and all derails by dual control electro-hydraulic point machines.

Down Automatic DG 149 at Madden Grove was abolished. A new Down Home BLY 380 was provided further in the Up direction. The new Home will display Normal Speed indications for movements to the Glen Waverley line and a 'Low Speed Caution' indication for movements to the sidings. Down Automatic DG163 (between Burnley and Heyington) was renumbered BLY280.

Up Automatics DG152 (at Madden Grove) and DG 180 (at Heyington) were converted to Home signals BLY 381 and BLY 383 respectively. Home BLY 383 is not fitted with a low speed signal. If this signal fails,

the Driver must obtain verbal authority to pass it from the Signaller Burnley. Up Automatic DG144 (between Madden Grove and Burnley) was renumbered BLY281.

Homes BLY380, BLY381, and BLY383 are provided with post telephones.

Up Dwarfs were provided to control movements from the sidings. Dwarf 385 controls movements from Siding 1, Dwarf 387 from Siding 2, and Dwarf 389 from Siding 3. All three Dwarfs will show 'Clear Low Speed' when the line from the siding is clear and Up Automatic BLY281 is clear. Post telephones and berth track circuits are provided for each Dwarf. Drivers of departing trains must bring their train to a stand within 10 metres of the Dwarf signal, a sleeper has been painted white in each siding to indicate the commencement of each track circuit.

The connections to stabling sidings may switch out (Closing lever BLY 290). When switched out Homes BLY380, BLY381, and BLY383 will work automatically. Homes BLY380 and BLY381 are fitted with illuminated letter A's. The stabling sidings can only be switched in or out when Burnley is switched in.

Security gates were provided worked by lever 283. Provision for manual operation of these gates has been provided.

Diagrams 55/97, 63/97 and 65/97 replaced 69/87 and 1/96. (SW 375/97, WN 42/97)

24.10.1997 **Broadford**

On Friday, 24.10.97, the Crossover 21 (trailing crossover in the Main line at the Up end) was disconnected from the interlocking frame. The crossover is now worked by a small point lever at the Down end of the points and is secured by an A pattern Annett Lock. The key is normally kept in a duplicate lock on lever 21. Posts 9 (Disc 24) and 11 (Disc 19) were abolished. (SW 376/97, WN 43/97)

26.10.1997 **West Tower - Sims Street Junction**

On Sunday, 26.20.1997, the signalling associated with the new NRC Locomotive Provisioning Centre was commissioned. The Provisioning Centre is located within the triangle at Sims Street Junction and consists of six tracks numbered 1 to 6. Nos 2, 3, and 4 Tracks provide access to the Provisioning Centre.

The southern leg of the Standard Gauge triangle (between Homes 138 and 150 and leading towards Spencer Street) has been named S Track, the western leg (between Home 146 and Dwarf 110 and leading towards Dynon) has been named X Track, and the eastern leg retains the name W Track.

There is no longer a broad gauge triangle. The Broad Gauge lead towards the Melbourne Freight Centre (the former southern leg) retains the name Y Track. The Broad Gauge lead towards South Kensington and Dynon (the former western leg) between Homes 112 and 152 has been named R Track.

Points 131/Catch 131 provided access to the Provisioning Centre from the western end. A new Up Dwarf 164 has been provided for set back moves from the Down Dual Gauge Goods Line at Bunbury Street to Tracks Y, S, X or Provisioning Centre Tracks 1 to 5. Dwarf 164 was to be fitted with V and S indicators but had not been by 24.1.98. A new Down Dwarf 130 controls moves from Provisioning Centre Tracks 1 to 5 to the Down Goods Line towards Automatic MG221.

Crossover 127 provides access between S Track and Provisioning Centre Track 1. A new Up Dwarf 128 controls moves along No 1 Track towards Dwarf 114 or from No 1 Track to S Track towards Home 138. A new Down Dwarf 124 controls moves along No 1 Track towards Dwarf 130.

The 6 tracks of the Provisioning Centre join at the eastern end (together with W Track) to form a short shunting neck. Vehicles are not to be stabled in the shunting neck. New Points 107 lead from the Shunting Neck to W Track. New Points 135 lead from the Shunting Neck towards the Melbourne Freight Terminal. New Up Dwarf 114 and Co-acting Dwarf 114P lead from Provisioning Centre Tracks 1 to 6 towards the Shunting Neck or to the Melbourne Freight Terminal. New Down Dwarf 108 controls moves from the Shunting Neck or Melbourne Freight Terminal towards Provisioning Centre Tracks 1 to 6.

Diagrams 30/97 and 77/97 replaced 13/93 and 14/93. (SW 378/97, WN 42/97)

26.10.1997 **West Tower - Melbourne Freight Terminal**

On Sunday, 26.20.1997, two short Standard Gauge Engine Sidings were provided at the Up end of the Melbourne Freight Terminal. The sidings extend from No 4 Track. New Down Dwarfs 206, 208, and 210 were provided to control movements from No 3 Track towards Dwarf 202, No 1 or 2 Engine Tracks towards Dwarf 216, and No 4 Track towards Dwarf 216 respectively.

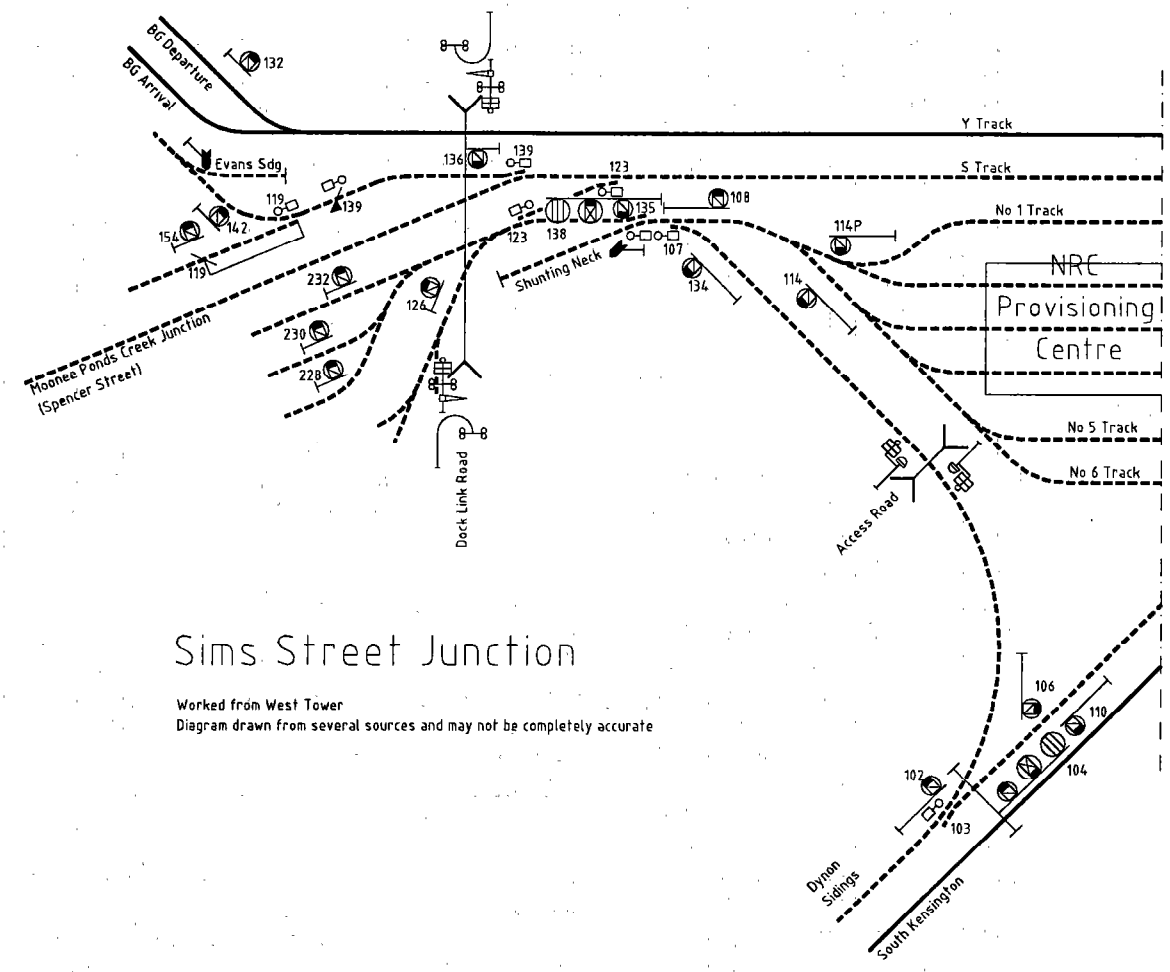
New Hand Points A have been provided connecting the lead from Dwarf 202 to the lead to Nos 1 and 3 Tracks. New Hand Points B have been provided connecting the lead from Dwarf 126 to the lead to Nos 1, 3, and 4 Tracks. New Hand Points C have been provided connecting to the lead from Points B to No 4 Track or Engine Track.

Diagrams 30/97 and 77/97 replaced 13/93 and 14/93. (SW 378/97, WN 42/97)

(28.10.1997) **Tram/ Rail Level Crossings**

Level Crossings at which Tramway Traffic is Regulated by Fixed Signals (Rule 6, Section 9, Book of Rules) has been reissued. The main alterations are:

- Clause (a). The type of tramway signal is defined as an illuminated 'T' light or a standard railway disc signal, and the 'derail' points have been altered to 'catch' points.
- Clauses (b) and (c) have been reworded to make it clear that the Signaller must operate the tramway signal for each tram.



- Clause (d). Maintenance of the catch points is now the responsibility of the Tramway Infrastructure Department and Signallers no longer have to clean the catch points.
- Clause (g) If an accident occurs, the Signaller has to obtain the details instead of the Stationmaster or Officer in Charge

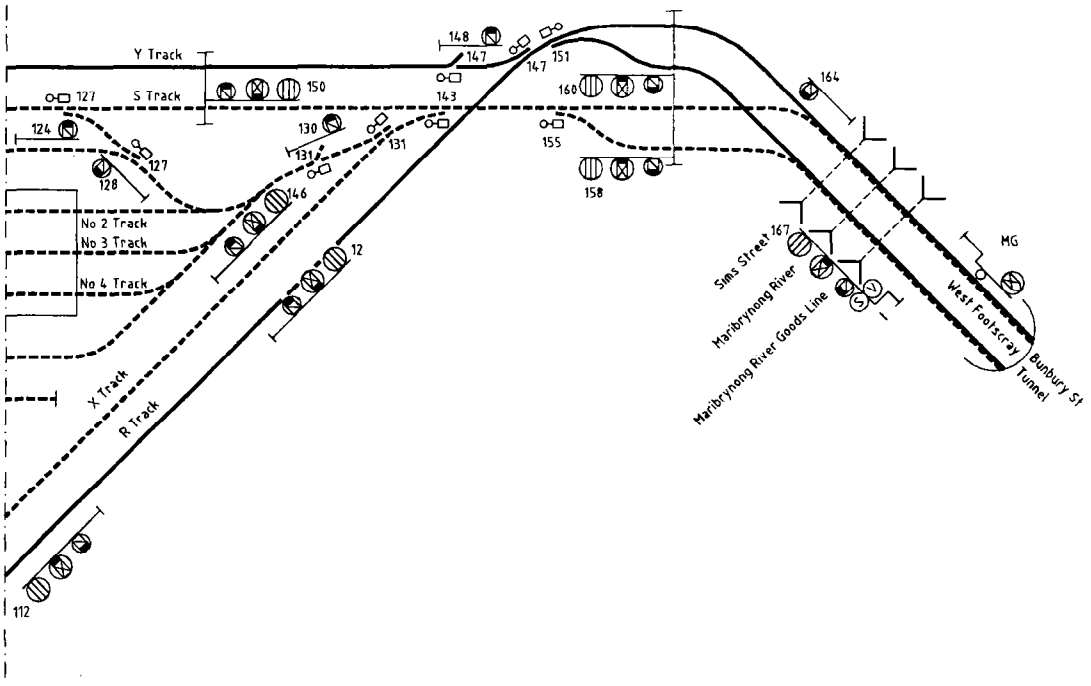
Railway/Tramway Electrical Conductors (Rule 7, Section 9, Book of Rules) has been reissued. The main alterations are:

- Clause (a) and (c). The fact that Riversdale has a separate Overhead Power Selection lever is mentioned.
- Clause (e) The wording on the indicator has been changed from 'Railway' and 'Tramway' to 'Rail' and 'Tram'.
- Clause (f) The Signaller is responsible for organising coasting over the level crossing instead of the Stationmaster.
- Clause (h) When passing a Home signal at Stop, the Signaller must check that the Rail/Tram indicator shows 'Rail' in addition to checking that the boom barriers are down and the Boom/Overhead lever is full normal. A Signallers Caution Order (2377) must be issued to the Driver to pass the Home at Stop. The train must now clear the level crossing, and not the section insulators, before the Boom/Overhead lever can be reversed.
- Clause (i) The Signaller no longer cuts off the rail current by opening the isolator when fittings or wires are hanging down. The Signaller must inform Train Control, the Overhead Fault Centre, and Electrol (if power is lost). The Signaller no longer has to inform the tramway authorities.
- Clause (j) The Signaller no longer has to report faults to the Stationmaster.

(SW 358/97 & 369/, WN 41/97)

(28.10.1997) **Kooyong - Operation of Tramway Square**

Upon the approach of an Up or Down train, the Signaller must check that Tramway Signals 11 and 12 are at Stop. The Signaller must then call the traffic lights to the Stop cycle by pressing the 'Push to Call' button. The red 'Call Acknowledge' light will light. When the traffic lights have cycled to 'Stop', the green 'Gate Stop Free' light and the white 'Free' light for lever 15 (Boom/Overhead lever) will light. The Signaller must then press the foot switch behind lever 15 which will operate the lever lock and allow lever 15 to be restored to the special notch. This will cause the boom barriers to lower. When the booms have been



detected down, the lever lock on lever 15 will operated and the Signaller can place the lever to the full normal position. This will switch the Rail supply to the square and the 'Rail' indicator will be shown. Wickets 13 and 14 are then closed. The Signaller must check that the 'Rail' indicator is shown before clearing the Home signal.

When the last vehicle of the train has cleared the section insulator, the lever lock on lever 15 will operate and allow the lever to be reversed. This will cause the boom barriers to rise and will switch the tramway power supply to the square. The Signaller must ensure that the 'Tram' indicator is showing before clearing the tramway signals.

Should the lever lock on lever 15 fail, the provisions of Rule 7d, Section 9, Book of Rules must be followed. The lever lock closest to lever 15 must be operated if the lever fails in the normal or reverse positions, and the furthest lever lock operated if the lever fails in the special notch position.

Should the lever lock on levers 11 or 12 fail (the tramway signals), the Signaller must break the paper seal and operate the lock. The Signaller must ensure that trams and trains are clear of the level crossing insulators before operating the lever.

Should the traffic lights fail to respond to a call, the Signaller must wait 30 seconds and then break the paper seal on the lever lock closest to lever 15 and operate the lock. The Signaller must ensure that trams and trains are clear of the level crossing insulators before operating the lever. Operation of lever 15 will force the traffic lights into the flashing amber cycle. If the traffic lights fail, or go into flashing amber cycle, the lever lock closest to lever 15 will be operated after a two minute delay. The 'Gate Stop Free' light will also light. The lever lock will remain energised until the fault is fixed.

If the 'Gate Stop Lever Free' lever remains illuminated due to a traffic light failure, the Signal Fault Centre must be notified.

If the 'Push for Call' button is accidentally pressed after the 'Gate Stop Lever Free' indication is shown, the Signaller must press the Emergency Release button. This will cancel the call.

If the boom barriers fail down, the Signaller must manually raise the barriers, check that the overhead is switched to tram power, and check that the catch points are closed before verbally authorising the tram to pass the tram signals. If the overhead cannot be switched to tram power, the tram driver must coast over the crossing with trolley pole or pantograph lowered. (SW 359/97, WN 41/97)

(28.10.1997) **Gardiner - Operation of Tramway Square**

See Kooyong, except that:

- The Boom/Overhead lever is No 2, and the Tramway signals are Nos 5 & 6.
- There is only one lever lock attached to the Boom/Overhead lever
- The tramway catch points are motor operated. Skates are attached to the tramway overhead to detect the approach of a tram. Power will be removed from catch point motors after an approaching tram has tripped the skate. Hence it is not possible to open the catch points (for a rail movement) if a tram

has passed the tramway signal. If this occurs, the Signaller must operate the 5P keyswitch to restore power to the catch points.

If the catch points fail, the catch points are to be operated by an authorised tramway official. The Signaller is to operate the Power/Hand catch point power isolation switch in the presence of the official.

- If the boom barriers fail, a tramway official will operate the tramway boom barriers.

(SW 366/97, WN 41/97)

(28.10.1997) **Riversdale - Operation of Tramway Square**

Upon the approach of an Up or Down train, the Signaller must check that Tramway Signals 5 and 6 are at Stop. The Signaller must then restore Boom lever 4 to the special notch. This will cause the boom barriers to lower. When the booms have been detected down, the lever lock on lever 4 will operate (indicated by a buzzer) and the Signaller can place the lever to the full normal position. The white 'Free' light for Switching lever 2 will then illuminate. The Signaller can then press the foot switch to operate the lever lock on lever 2 and restore the lever to normal. This will switch the Rail supply to the square and the 'Rail' indicator will be shown. The Signaller must check that the 'Rail' indicator is shown before clearing the Home signal.

When the last vehicle of the train has cleared the section insulator, the lever lock on lever 2 will operate and allow the lever to be reversed. This will switch the tramway power supply to the square and free Boom lever 4. Reversing lever 4 will cause the booms to rise. The Signaller must ensure that the 'Tram' indicator is showing before clearing the tramway signals.

Should the lever locks on levers 2 or 4 fail, the provisions of Rule 7d, Section 9, Book of Rules must be followed.

Should the lever lock on levers 5 or 6 fail (the tramway signals), the Signaller must break the paper seal and operate the lock. The Signaller must ensure that trams and trains are clear of the level crossing insulators before operating the lever.

If the boom barriers fail down, the Signaller must manually raise the barriers, check that the overhead is switched to tram power, and that it is safe for the passage of the tram before verbally authorising the tram to pass the tram signals. If the overhead cannot be switched to tram power, the tram driver must coast over the crossing with trolley pole or pantograph lowered. (SW 361/97, WN 41/97)

(28.10.1997) **Glenhuntly - Operation of Tramway Square**

Upon the approach of an Up or Down train, the Signaller must check that Tramway Signals 9 and 10 are at Stop. The Signaller must then restore Boom/Overhead lever 7 to normal and operate Pedestrian Gate levers 11/12 as required. Operation of lever 7 will cause the boom barriers to lower and the overhead power to be switched to the rail. The Signaller must check that the booms are down (indicated by a green light on lever 7) and the 'Rail' indicator is shown before clearing the Home signal.

When the last vehicle of the train has cleared the section insulator, electric locking on lever 7 will be free and allow the lever to be reversed. This will switch the tramway power supply to the square and cause the booms to rise. The Signaller must ensure that the 'Tram' indicator is showing before clearing the tramway signals.

The tramway catch points (9 and 10) are motor operated. Skates are attached to the tramway overhead to detect the approach of a tram. If a tram is on the approach to either Tramway Signal 9 or 10 and the lever is restored to normal, the signal will return to Stop but power is removed from the catch points. In this case the Signaller must first check that the tram has not passed the tramway signal. If the tram has stopped behind the tramway signal, the Signaller must operate either 9 or 10 emergency 5P keyswitch for one second. This will restore power to the catch points and they will run to the derail position.

The Power/Manual switch for the Tramway Catch points is only to be placed in the Manual position when the Catch points do not obey the lever, the 5P emergency release has failed to operate, and only in the presence of an authorised tramway official. The official will operate the points and must remain until the fault is rectified.

If the overhead power fails to switch, the Signaller must operate the emergency 5P keyswitch for one second. This will operate the motor driven overhead switch. The Signaller must observe the Rail/Tram indicator to ensure the correct indication is displayed. Emergency manual operation of the overhead power switch is also provided. The overhead power switch (Rail Tram Activator Switch) is located in a cabinet adjacent to the Down Main Line. An operating crank attached to an 11P key is kept in a keyswitch in the cabinet. To manually operate the overhead power, the key is turned to the reverse (2 o'clock) position and removed. The crank may then be used to manually wind the operating switch to the desired position. 'Rail' and 'Tram' indicators are provided in the cabinet to indicate when the switch has been fully operated.

If the boom barriers fail down, the Signaller must manually raise the barriers, check that the overhead is switched to tram power, and check that the catch points are closed before verbally authorising the tram to pass the tram signals. If the overhead cannot be switched to tram power, the tram driver must coast over the crossing with trolley pole or pantograph lowered.

If the boom barriers fail to operate, the Signaller must check that the tramway signals are at Stop and that the overhead power is set for Rail operation. A Signallers Caution order must then be completed and

handed to the Driver. The Driver must be cautioned to proceed cautiously as the boom barriers will not operate until the leading wheels of the train have passed the Home signal. (SW 367/97, WN 41/97)

31.10.1997 **Mildura**

On Friday, 31.10.97, a 70 foot turntable was commissioned at Mildura. The turntable is located at the end of the left hand Car Siding. The Turntable Pawl lever is secured by a 'B' pattern Annett Lock and the key is held by the OiC at Mildura. Amend Diagram 18/92. (SW 396/97, WN 44/97)

05.11.1997 **North Geelong A**

From Wednesday, 5.11.97, Discs 25 (Post 9C), 26 (Post 9B), 27 (Post 9), 32 (Post 9D) and 46 (Post 11) were electrically lit. (SW 381/97, WN 43/97)

10.11.1997 **Werribee**

From Monday, 10.11.97, a new unilever panel was provided in a control room in the pedestrian subway at Werribee. Television monitors are provided to check that trains are complete.

Messages over the Post telephones at Werribee are recorded. If a Home signal fails, the Signaller will read the Caution Order over the phone provided that the points are detected in the correct position and the point levers have been sleeved. If the points are not detected in the correct position, the Signaller must hand operate the points and deliver the Caution Order to the Driver. Caution Order 2367 will be used for Homes 4, 6, 12, 16, and 18. Caution Order 2377 will be used for Homes 2, 8, 14, 20, 22, 26, 28, and 30.(SW 394/97, WN 44/97)

(11.11.1997) Traralgon - **Sale**

Delete Procedure 95, Section 34, Book of Rules dealing with issue of return Train Orders as this is now covered in SW 370/97. (SW 383/97, WN 43/97)

(11.11.1997) **Sale**

Delete Procedure 94, Section 34, Book of Rules dealing with Driver in Charge of Signalling.

The Driver of Train 8431 Monday to Friday will be in charge of signalling upon arrival at Sale provided trains are not cross. Upon arrival at Sale, the Driver must restore the signals to Stop and use the Annett Key to reverse the points into the Passenger Train Servicing Siding. After driving the train into the siding, the Driver must restore the points to normal and then clear the signals. (SW 383/97, WN 43/97)

(11.11.1997) Maffra

Delete Procedure 96, Section 34, Book of Rules. (SW 383/97, WN 43/97)

12.11.1997 **Melbourne Operations Terminal (West Tower)**

On Wednesday, 12.11.97, the existing Fouling Point Boards at the West end of Tracks 1 - 5 were replaced by new boards situated between the rails. The new boards are white with a black 'F'. The rear of the boards are white. (SW 399/97, WN 45/97)

13.11.1997 **Flinders Street**

On Thursday, 13.11.97, electro hydraulic train stops replaced the electro-pneumatic train stops at Homes 331 and 336 (Platform 3). (TS 98/97, WN 45/97)

15.11.1997 **Flinders Street**

On Saturday, 15.11.97, electro hydraulic train stops replaced the electro-pneumatic train stops at Homes 341 and 346 (Platform 4). (TS 97/97, WN 45/97)

16.11.1997 **Tooronga**

On Sunday, 16.11.97, the Up equipment boxes at Toorak Road were relocated. (TS 100/97, WN 45/97)

(18.11.1997) **Train to Base Radio Channels**

The Train to Base Radio Channels will be as follows:

Room	Line	Radio Channel
1	Melbourne - Albury (BG & SG)	6
2	Melbourne - Ballarat - Ararat, Ouyen - Pinnaroo,Ararat - Castlemaine	3
	Pyrenees Loop - Wolseley, Murtoa - Hopetoun, Dimboola - Yaapeet	6
	Dunolly - Robinvale, Korong Vale - Kulwin	8
3	Tottenham Loop - Pyrenees Loop	2
4	North Geelong C - Yelta, Portland - Maroona	5
5	Melbourne - Warrnambool, Brooklyn Loop	8
	Seymour - Tocumwal, Strathmerton - Cobram, Benalla - Oaklands	5
9	Melbourne - Sale & Nyora	7
	Melbourne - Piangil, Bendigo - Deniliquin, Barnes - Moulamein	4

(SW 393/97, WN 44/97)

(18.11.1997) **Elders IXL Siding (Corio)**

a) Movements of North Geelong Yard Pilot to Elders Siding

Before departing from North Geelong, the Train Controller controlling movements on the Standard Gauge line must issue a Manual Authority to the Driver of the Pilot. Before issuing the Authority, the Controller must apply a Hi-Rail permission on the Elders Block Point - North Geelong Block Point section. The

Controller must also check with the Train Controller controlling movements over the Broad Gauge line that a suitable path exists for the Pilot to run to the siding. The Signaller, North Geelong A, must be informed when the pilot is ready to depart for Elders Siding.

Once the pilot has arrived clear inside the catch points at Elders IXL Siding, the points restored for main line traffic, and the Switch Lock restored to normal, the Driver must return the Authority to the Train Controller who will release the Elders Block Point - North Geelong Block Point section.

b) Movements from Elders Siding

Movements from the Siding are made under a Manual Authority issued in the same fashion as the Authority used to travel to the siding. The Manual Authority is to be returned to the Train Controller when the Pilot is back on the West Line and the points have been restored to normal. If Corio is switched in, the Pilot may return to North Geelong on the West Line. If Corio is switched out, however, the Pilot must proceed to Little River (if switched in) or Werribee on the West Line and return to North Geelong on the East Line. (SW 379/97, WN 44/97)

(18.11.1997) **Mildura: Operation of Pilot**

The Mildura Pilot operates as required between Merbein and Redcliffs.

(d) Shell Siding

The Shell Oil Siding is located on the Down side of Mildura inside the Up Location Board. The points are secured by a Master Key lock. Movements between Mildura and the Shell Siding will be under a Shunt Authority for the Mildura - Yelta section.

If a Down Yelta train is proceeding to Yelta on a Section Authority and the Pilot requires to shunt the Shell Siding, the Signaller must first go to the Up Location Board and check that the train has passed the board complete. The Signaller will then advise the Driver, who will then advise the Train Controller. The Train Controller will lift the Shunt Access and issue a Shunt Authority for the Pilot to proceed to the Shell Siding.

(e) Merbein

Merbein consists of two loop sidings; Wakefields at the Down end and Old Merbein Siding at the Up end. The dead end IPC Siding is situated opposite Old Merbein Siding. All points are secured by Hand Locking Bar and padlock.

The issue of a Siding Authority to Merbein from either Mildura or Yelta authorises the train to shunt at all sidings at Merbein. If a train operating under a through Section Authority shunts Merbein and is being followed by a Road/Rail vehicle, the Road/Rail vehicle must not enter Merbein yard until the operator has checked that shunting operations are complete and the train has departed.

(f) Cement Siding

The Cement Siding is located on the Up side of Mildura inside the Down Location Board. The points are secured by a Annett lock. The Annett Key is kept in a Master/Annett Key Exchange Apparatus at the points. A local Master Key (No 47) is kept at Mildura for the operation of the apparatus and all trains requiring to shunt the Cement Siding must carry this key. Movements between Mildura and the Cement Siding will be under a Shunt Authority for the Mildura - Yatpool BP (or Irymple, when switched in) section.

If an Up train is proceeding to Yatpool BP (or Irymple) on a Section Authority and the Pilot requires to shunt the Cement Siding, the Signaller must first go to the Down Location Board and check that the train has passed the board complete. The Signaller will then advise the Driver, who will then advise the Train Controller. The Train Controller will lift the Shunt Access and issue a Shunt Authority for the Pilot to proceed to the Cement Siding.

(g) Irymple

It is not necessary to switch Irymple in to shunt at Irymple, but a train must not be locked away at Irymple while switched out. When it is necessary for the Mildura Pilot to shunt Irymple, a Siding Authority must be issued between Mildura and Redcliffs. The Driver of the Pilot must be given Master Key 47 to allow the Pilot to shunt the Cement Siding and Irymple Co-op Siding if required. The Driver of a shunting train will be responsible for the operation of the signals and plunger locked points at Irymple. The points must be locked normal and the signals at proceed before the train departs from Irymple.

(SW 377/97, WN 44/97)

23.11.1997 **Gowrie**

On Sunday, 23.11.97, an additional Flashing Light mast was installed. (TS 101/97, WN 46/97)

23.11.1997 **Berwick**

On Sunday, 23.11.97, Homes 4 and 14 were converted to Controlled Automatics D1387 and D1410 (respectively) as a preliminary step in the abolition of the siding. Amend Diagram 9/95.

(SW 409/97, WN 46/97)

24.11.1997 **Donnybrook**

The block hours will be:

Mondays - Fridays..... 1520 hours to clearance of 9354 (Broadmeadows? at 2243)
Saturdays and Sundays ..... Switched Out

(SW 412/97, WN 47/97)

24.11.1997 **Broadford**

The block hours will be:

Mondays - Fridays.....0535 hours to clearance of 8307 (Seymour at 1014)

Saturdays and Sundays .....Switched Out

(SW 412/97, WN 47/97)

(25.11.1997) **SAW Working**

Locomotive NR98 has been fitted with an LSDU. (WN 45/97)

29.11.1997 **Camberwell**

From Saturday, 29.11.97, Home 44 was relocated to a signal bridge located 11 metres in the Down direction. A co-acting signal is provided for Home 44 mounted on the platform leg of the signal bridge. Amend Diagram 63/97. (SW 416/97, WN 47/97)

30.11.1997 **Riversdale**

From Sunday, 30.11.97, Home U11 was provided to control moves from the Down platform over the crossover to Camberwell. The Home is situated between the Up and Down lines on the Down side of Prospect Hill Road and is similar in size to a Dwarf. (SW 417/97, WN 47/97)

(02.12.1997) **Westall**

To protect contractors working at Westall Sidings without requiring standard track protection, the Jolimont Rationalisation Representative will clip the points leading to the Westall sidings (Points 7 at Westall and Points 47 at Springvale) normal. Permission to do this must be obtained from the Signaller at Springvale and may be granted if the sidings are clear and no train is scheduled to enter the sidings. A note must be made in the TRB when permission has been granted and when the points are unclipped. Springvale must be attended and switched in during this time. (SW 395/97, WN 46/97)

07.12.1997 **Safeworking Supervision**

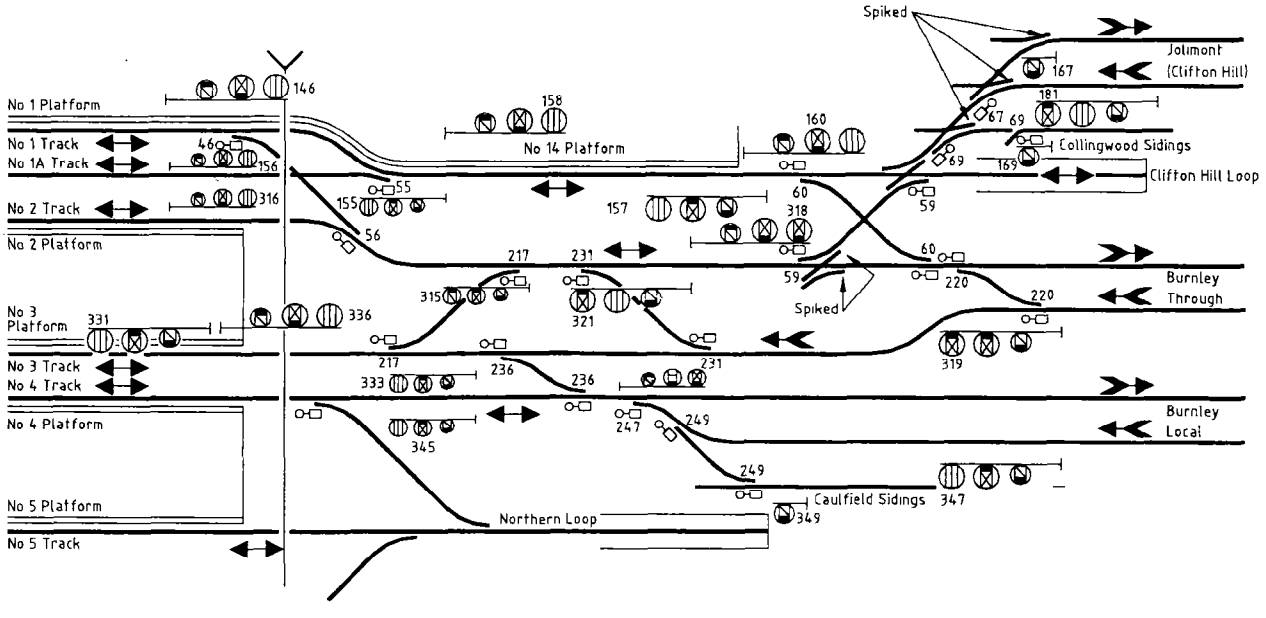
Commencing 0001 hours Sunday, 7.12.97, responsibility for all safeworking policy, standards, and procedures for VicTrack was transferred to the Manager, Rail Safety. The Manager, Rail Safety, will also manage the safeworking requirements of the Tourist Railways. The Superintendent, Safeworking, will continue to be responsible for the metropolitan electrified area. (SW 424/97, WN 48/97)

24.11.1997 **Burnley**

The block hours will be closed only between 0110 hours and 0645 hours Sunday and between 0030 hours and 0405 hours Monday. (SW 432/97, WN 48/97)

08.12.1997 **Flinders Street**

From Monday, 8.12.97, the connections between Platforms 1, 2, and 3 and the Burnley Through and Local lines were rearranged and simplified as part of the Jolimont Yard Rationalisation.



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REGULATION 76

Andrew Waugh

Most readers would be familiar with the 'Rules and Regulations', but the railways had other regulations as well, possibly of more interest to the employees. One set of regulations were the terms and conditions of employment. Regulation 76 was gazetted on Tuesday, 2 October 1923, and it is interesting to explore the conditions affecting Signalmen (and related grades such as Block Recorder and Block and Signal Inspector). The rates of pay were listed in the award (No 6) of 20 December 1922 of the Railways Classification Board which came into force on 1 January 1923.

The Victorian Railways used the term 'Signalman' to refer to both a role, and a job description. When used by the Book of Rules and Regulations, 'Signalman' meant any '[...] employé in charge of the working of Signals or of an interlocking apparatus'. The Signalman could actually be a Stationmaster, Assistant Stationmaster, or Signal Porter. When used as a job description, the term 'Signalman' meant a Signaller who manned one of the 155 classified signalboxes.

The list of classified signalboxes in 1923 is given in Table 1. Generally, classified signalboxes were what are normally thought of as 'signalboxes', but a number of 'signalbays' are included (e.g. Macaulay, Glenhuntly, Williamstown Beach). Signalling locations not listed in Table 1 were operated by employees as part of their other duties.

A Signalman's pay depended solely on the box at which he was stationed. Boxes were classified into five classes (Class 4 to Class 1 and Special Class). The following table shows the daily rate of pay (per eight hour shift) of the five classes of signalmen, together with that of Block Recorder and Signal Porter (i.e. a Porter who was qualified to acted as Signalman). The table also shows a nominal annual wage based on working 5 ½ shifts per week, 52 weeks per year. This figure is purely nominal as it doesn't take into account overtime.

Classification	Rate per shift (s/d)	Annual Rate (£/s)
Block Recorder	13/0	185/18
Signal Porter	14/0	200/4
Signalman Class 4	14/6	207/7
Signalman Class 3	15/0	214/10
Signalman Class 2	15/6	221/13
Signalman Class 1	16/6	235/19
Signalman Special Class	18/0	257/8

To give some idea of relative wages, Firemen were paid between 14/0 and 15/6 (after about 4 years) and so were equivalent to the lower 3 classes of Signalmen. Drivers ranged from 16/6 to 19/6 (after 6 years); a Special Class Signalman was paid the same as a Driver with 4 years experience. A Suburban Electric Guard was paid between 14/0 and 15/0, and so, again, were equivalent to the lower three classes of Signalmen. A Goods Guard was paid between 16/0 and 16/6 and was equivalent to a Class 1 Signalmen. A Passenger or Express Guard was paid between 17/0 and 17/6 and so fell between Class 1 and Special Class Signalmen. Assistant Stationmasters were paid an annual salary between £237 and £292 per year and so were nominally roughly equivalent to Class 1 and Special Class Signalmen, but being Officers did not get paid overtime. The lowest paid Stationmaster was on £242 per year - a little worse than a Special Class Signalman, but these were appointed to places like Ravenswood. Most Stationmasters earned, of course, much more than Signalmen.

Block Recorders were equivalent to an ordinary Porter, but any skilled porter earned between 13/6 and 14/0 per day.

Physical Standards

Signalmen (along with engine drivers, firemen, and cleaners) had to reach standards in vision, colour sense and hearing.

Vision had to be not less than 6/6 with both eyes open with neither eye to be less than 6/24. Where a Signalman was below the standard, glasses could be worn provided the vision was corrected to not less than 6/6 with both eyes open and with neither eye less than 6/9. Where glasses were necessary, the Signalman had to obtain two pairs of glasses, and one pair had to be kept in the signal-box as part of his equipment. Both pairs had to be produced for examination at his periodical examination.

Color-sense had to be 'safe', by which I take to mean that they had to be able to distinguish red, yellow and green.

Hearing had to be half normal each ear, or three fourths normal with one ear only.

Signalmen, on appointment, had to conform to the standard 6/12, 6/12, 6/9 without glasses. Signalmen had to be re-examined every two years and could be ordered to be re-examined whenever a superior thought there was reason to suppose that vision, colour sense, or hearing had deteriorated.

Annual Leave

The annual leave granted depended on the classification and length of service as shown in the following table:

Classification	Minimum (days)	Maximum (days)
Class 4	4	8
Class 3 or Class 2	5	10
Class 1 or Special	5	12

An additional day of leave was granted for each year of service up to the maximum.

Signalmen (Special or Class 1) were entitled to 1st class station to station leave pass (as were, for example, all Passenger or Goods Guards and all Drivers after 12 months). Lower classed signalmen received a 2nd class leave pass.

Uniform

Signalmen were issued with one uniform cap each year.

Block and Signal Inspectors

The April 1919 General Appendix divided Victoria into four Block and Signal Inspectors' Districts. No 1 was the metropolitan area, No 2 the eastern and north

Table 1 - Classification of Signal-boxes		
	Special Class	
Dudley-street	Flinders-street C	No 1 Melbourne Yards
Franklin-street	Flinders-street E	North Melbourne
Flinders-street A	(Men in charge)	(Coburg Junction)
Flinders-street B		
	Class 1	
Ballarat A	Flinders-street D	Newport A
Box Hill	Flinders-street E (Asst)	South Kensington
Burnley A	Flemington Racecourse	South Yarra
Caulfield A	Footscray A	Sunshine
Caulfield B	Geelong A	Seymour C
Clifton Hill B	Graham	Viaduct
Essendon		
	Class 2	
Ararat A	Glenhuntly	Newmarket
Benalla B	Hawthorn	North Fitzroy C
Clifton Hill A	Kensington	Seymour B
Dandenong A	Maribrynong River	Show Grounds
East Richmond	Maryborough B	Williamstown
Elsternwick		
	Class 3	
Benalla A	Macaulay	Oakleigh A
Bendigo B	Middle Brighton	Sandringham
Bendigo D	Mordialloc	South End
Camberwell	North Brighton	Spotswood
Castlemaine A	North Fitzroy A	Woodend
Dandenong B	North Port (Inglis Street)	Yarraville A
Dimboola	North Williamstown	Yarraville B
Lilydale		
	Class 4	
Albert Park	Gravitation	Port Melbourne A
Alphington	Hamilton	Port Melbourne B
Ararat B	Hampton	Prahran
Ballarat B	Heidelberg	Reservoir
Ballarat C	Horsham	Ringwood
Ballarat D	Ivanhoe	Ripponlea
Ballarat East	Kooyong	Royal Park
Bell	Korumburra	Sale
Bendigo A	Kyneton	Seymour A
Bendigo C	Mangalore	Serviceton
Box Hill (Asst)	Maryborough A	South Brunswick
Brighton Beach	Mentone	St Kilda
Brunswick	Middle Brighton	Stawell A
Canterbury	(New-street)	Stawell B
Carnegie	Moonee Ponds	Surrey Hills
Castlemaine B	Moorabbin	Tallarook
Castlemaine C	Mont Albert	Thornbury
Caulfield B (Asst)	Moreland	Tooronga
Cheltenham	Murrumbeena	Tottenham
Clifton Hill C	Murtoa	Traralgon
Coburg	Newport A (Asst)	Wangaratta
Coleraine Junction	Newport B	Warragul
Fairfield Park	North Carlton (Lygon-street)	Warrenheip
Footscray B	North Fitzroy B	Waubra Junction
Footscray C	North Fitzroy	Weighbridge Junction
	(Nicholson-street)	
Footscray D	North Geelong A	West Footscray
Flinders-street (Aux Box)	North Geelong B	Westgarth
Frankston	North Geelong C	Williamstown Beach
Gardenvale	North Port (Bridge-street)	Windsor
Gardiner	Northcote	Wodonga A
Geelong B	Oakleigh B	Wodonga A
Geelong (Maitland-street)	Ormond	Wodonga B

eastern lines (except the Goulbourn Valley line and branches), No 3 everything south of the Serviceton line and the branches west of Ararat, and No 4 the northern lines from the Goulbourn Valley around to the Mildura line.

There were nine Block and Signal Inspectors to cover these four districts. Inspector Cook was permanently in charge of No 1 District. Inspector Cook, who was permanently in charge of No 1 District was probably the Block and Signal Inspector (Metropolitan District) who was paid between £392 and £437. The Metropolitan Block and Signal Inspector was a senior position in the Traffic Branch, it was equivalent to a Class 2 Stationmaster (e.g. Ararat, Caulfield, Newport or Seymour), the Chief Ticket Inspector, the Examining Officer and the Train Running Officer.

Of the remaining eight Block and Signal Inspectors, three were in charge of the other districts and five were Assistant Inspectors in the metropolitan district. The Inspectors interchanged districts annually. These Inspectors were paid between £332 and £392 (the salary increased in 5 steps of £15). Once past the lowest step, this was equivalent to a Class 3 or 4 Stationmaster (e.g. Woodend, Lilydale, Echuca, or Warragul).

SIGNALLING ALTERATIONS

(Continued from Page 33)

Homes 155, 333, 338, 345, are 'underground' style signals similar in size to dwarf signals. The illuminated letter 'A' was removed from Home 318.

The Train Stops at Homes 146, 155, 156, 157, 158, 160, 315, 316, 318, and 345 were converted to electro-hydraulic operation. Points 215 and Crossovers 217, 231, and 236 were converted to electric operation.

Crossovers 60 and 220 were commissioned, but immediately booked out of service.

(SW 419/97, WN 48/97)

(09.12.1997) **Burnley**

Diagrams 63/97 (East Richmond - East Camberwell), 65/97 (Burnley Stabling Sidings) and 55/97 (Heyington - Glen Waverley) were issued showing the alterations for the new Stabling Siding (WN 47/97) (SW 375/97, WN 47/97)

16.12.1997 **Colac**

From 16.12.97, No 3 Road was book out of service and the points spiked to lie for No 4 Track.

(SW 443/97, WN 1/98)

(16.12.1997) **Westall**

The instructions for the protection of contractors in Westall have been augmented to allow for works in the sidings leading from the Shunting Track to be protected by the Jolimont Rationalisation Project Representative clipping the siding points for the Shunting Track under instructions from the Signaller, Springvale. In this case it is not necessary to secure the main line points, nor for the Signaller at Springvale to remain in attendance. (SW 428/98, WN 48/97)

20.12.1997 **Avenel**

Level crossing predictors were provided for both the Standard and Broad Gauges lines at Ewings Road and Bank Street. A notice board lettered 'Stopped Trains Max Speed to Crossing 20 km/h' is erected at the Down end of the platform. (TCO 56/97, WN 1/98)

ERRATA

The Molong Electric Staff instrument shown on the front cover of the January issue of Somersault can only contain 100 staffs, not 124 as stated.