



Government Gazette

OF THE STATE OF
NEW SOUTH WALES

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LEGISLATION

Allocation of Administration of Acts

The Cabinet Office, Sydney
5 May 2004

TRANSFER OF THE ADMINISTRATION OF ACTS

Her Excellency the Governor, with the advice of the Executive Council, has approved that the administration of the *Sustainable Energy Development Act 1995 No 96* be vested in the Minister for Energy and Utilities.

These arrangements are in substitution for those in operation before the date of this notice.

BOB CARR
Premier

Proclamations



Proclamation

under the

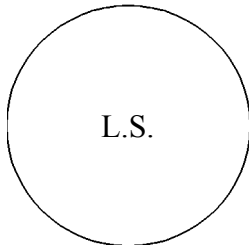
Public Lotteries Legislation Amendment Act 2004 No 13

JAMES JACOB SPIGELMAN, Lieutenant-Governor

I, the Honourable James Jacob Spigelman, Lieutenant-Governor of the State of New South Wales, with the advice of the Executive Council, and in pursuance of section 2 of the *Public Lotteries Legislation Amendment Act 2004*, do, by this my Proclamation, appoint 7 May 2004 as the day on which that Act commences.

Signed and sealed at Sydney, this 5th day of May 2004.

By His Excellency's Command,



GRANT McBRIDE, M.P.,
Minister for Gaming and Racing

GOD SAVE THE QUEEN!

Regulations



New South Wales

Public Lotteries Amendment (Prizes Paid by Agents) Regulation 2004

under the

Public Lotteries Act 1996

His Excellency the Lieutenant-Governor, with the advice of the Executive Council, has made the following Regulation under the *Public Lotteries Act 1996*.

GRANT McBRIDE, M.P.,
Minister for Gaming and Racing

Explanatory note

Section 39A of the *Public Lotteries Act 1996* (as inserted by the *Public Lotteries Legislation Amendment Act 2004*) allows a public lottery licensee to make rules to authorise the licensee's agents to pay prizes won in a public lottery conducted by the licensee so long as the prize does not exceed the amount prescribed by the regulations in relation to the lottery.

The object of this Regulation is to prescribe the amounts of \$9,999 in relation to a game of keno and \$1,000 in relation to a public lottery other than a game of keno for the purposes of section 39A (and to make a consequential amendment to the *Public Lotteries Regulation 2002*).

This Regulation is made under sections 39A and 83 (the general regulation-making power) of the *Public Lotteries Act 1996*.

Clause 1 Public Lotteries Amendment (Prizes Paid by Agents) Regulation 2004

Public Lotteries Amendment (Prizes Paid by Agents) Regulation 2004

under the

Public Lotteries Act 1996

1 Name of Regulation

This Regulation is the *Public Lotteries Amendment (Prizes Paid by Agents) Regulation 2004*.

2 Commencement

This Regulation commences on 7 May 2004.

3 Amendment of Public Lotteries Regulation 2002

The *Public Lotteries Regulation 2002* is amended as set out in Schedule 1.

Public Lotteries Amendment (Prizes Paid by Agents) Regulation 2004

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 3)

[1] Clause 6A

Insert after clause 6:

6A Prizes paid by agents

For the purposes of section 39A of the Act, the prescribed amount:

- (a) in relation to a game of keno is \$9,999, and
- (b) in relation to a public lottery (other than a game of keno) is \$1,000.

[2] Clause 13 Payment of prize money by cheque or electronic funds transfer

Omit “or agent of the licensee” from clause 13 (2).

Rules



Sporting Injuries Insurance Amendment Rule 2003

under the

Sporting Injuries Insurance Act 1978

Her Excellency the Governor, with the advice of the Executive Council, and in pursuance of the *Sporting Injuries Insurance Act 1978*, has been pleased to approve the following Rule made by the Sporting Injuries Committee.

JOHN DELLA BOSCA, M.L.C.,
Minister for Industrial Relations

The Sporting Injuries Committee, in pursuance of the *Sporting Injuries Insurance Act 1978*, makes the following Rule set out after the Explanatory note.

Explanatory note

The object of this Rule is to make the following amendments to the *Sporting Injuries Insurance Rule 1997*:

- (a) to set out the activities that constitute an **authorised activity** of a school or of the Department of Tourism, Sport and Recreation for the purposes of the *Sporting Injuries Insurance Act 1978*,
- (b) to set out the classes of persons who are to be treated as **enrolled student participants** of a school, or **enrolled participants** of the Department,
- (c) to set out requirements for the notification of a serious injury or death to the Sporting Injuries Committee and the form for notifying such an injury or death.

This Rule is made under the *Sporting Injuries Insurance Act 1978*, including sections 4 (1) (the definitions of **authorised activity**, **enrolled participant** and **enrolled student participant**), 20 (1) (a) and 31 (the general rule-making power).

Clause 1 Sporting Injuries Insurance Amendment Rule 2003

Sporting Injuries Insurance Amendment Rule 2003

under the

Sporting Injuries Insurance Act 1978

1 Name of Rule

This Rule is the *Sporting Injuries Insurance Amendment Rule 2003*.

2 Amendment of Sporting Injuries Insurance Rule 1997

The *Sporting Injuries Insurance Rule 1997* is amended as set out in Schedule 1.

Sporting Injuries Insurance Amendment Rule 2003

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 2)

[1] Clause 3 Definitions

Insert in alphabetical order:

serious injury means an injury that is, or may be capable of being, a compensable injury.

[2] Part 1A

Insert after Part 1:

Part 1A Notice of serious injury or death

3A Prescribed organisation to notify Committee of serious injury or death

- (1) This clause applies if a prescribed organisation becomes aware that a person who is a registered participant, enrolled participant or enrolled student participant of the prescribed organisation has suffered a serious injury, or has died as a consequence of having suffered an injury, while participating in an authorised activity of the prescribed organisation.
- (2) The prescribed organisation must notify the Committee of the serious injury or death as soon as practicable after becoming aware of the serious injury or death, and in any case within 12 months after becoming aware of the serious injury or death.
- (3) The notice is to be in the form of Form 3 in Schedule 1.

3B Injured person or legal personal representative to notify Committee of serious injury or death

- (1) A person who is a registered participant, enrolled participant or enrolled student participant of a prescribed organisation and who suffers a serious injury while participating in an authorised activity of the prescribed organisation must notify the Committee of the injury as soon as practicable after becoming aware of the injury, and in any case within 12 months after becoming aware of the injury.

Sporting Injuries Insurance Amendment Rule 2003

Schedule 1 Amendments

-
- (2) The legal personal representative of a person who was a registered participant, enrolled participant or enrolled student participant of a prescribed organisation and who died as a consequence of having suffered an injury while participating in an authorised activity of the prescribed organisation must notify the Committee of the death as soon as practicable after the death, and in any case within 12 months after the death.
 - (3) The notice is to be in the form of Form 3 in Schedule 1.
 - (4) A person, or the legal personal representative of a person, is not required to give notice of a serious injury or death to the Committee under this clause if the person or legal personal representative reasonably believes that the prescribed organisation has notified the Committee of the serious injury or death.

[3] Clause 6 Lodging of applications

Omit “Level 5, 447 Kent Street, Sydney”.

Insert instead “Level 4, 92–100 Donnison Street, Gosford”.

[4] Part 3, heading

Insert “or enrolled” after “registered”.

[5] Clause 7 Specification of authorised activities

Insert at the end of the clause:

- (2) The authorised activities of a school are any sporting or athletic activity operated or approved by the school.
- (3) The authorised activities of the Department are any sporting or athletic activity or program operated or approved by the Department.

[6] Clause 8, heading

Insert “of sporting organisations” after “participants”.

Sporting Injuries Insurance Amendment Rule 2003

Amendments

Schedule 1

[7] Clauses 8A and 8B

Insert after clause 8:

8A Persons to be treated as enrolled student participants of schools

- (1) A person is to be treated, for the purposes of the Act, as an enrolled student participant of a school with respect to a sporting or athletic activity at a particular time if the school principal (however described) determines that the person was an enrolled student participant of the school with respect to the activity at that time.
- (2) Such a determination is to be made by a certificate to the Committee in writing signed by the school principal.

8B Persons to be treated as enrolled participants of Department

- (1) A person is to be treated, for the purposes of the Act, as an enrolled participant of the Department with respect to a sporting or athletic activity or program at a particular time if an authorised officer of the Department determines that the person was an enrolled participant of the Department with respect to the activity or program at that time.
- (2) Such a determination is to be made by a certificate to the Committee in writing signed by the authorised officer.
- (3) In this clause:
authorised officer means an officer of the Department authorised by the Director-General of the Department for the purposes of this clause.

[8] Schedule 1 Forms

Omit “Department of Sport and Recreation” from Forms S1 and S2 wherever occurring.

Insert instead “Department of Tourism, Sport and Recreation”.

Sporting Injuries Insurance Amendment Rule 2003

Schedule 1 Amendments

[9] Schedule 1

Insert after Form S2:

Form 3

(Clauses 3A and 3B)

Sporting Injuries Insurance Scheme**New South Wales**

Notice of serious injury or death

To be completed by an official representative of the prescribed organisation, or the injured person, or the legal personal representative of the deceased person, in all cases of incidents involving serious injury or death that could result in a claim on the Scheme.

Minor injuries such as sprains, abrasions, cuts, bruises and dental injuries need not be notified.

1 Please indicate, by circling (a) or (b), whether this form is for:

- (a) a serious injury, or
- (b) a death.

2 State—

- (a) Full name of injured or deceased person:
- (b) Address of injured or deceased person:
- (c) Date and year of birth of injured or deceased person:

Sporting Injuries Insurance Amendment Rule 2003

Amendments

Schedule 1

- 3 State name of the prescribed organisation with whom the injured or deceased person was a participant at the time of the incident:

- 4 Provide particulars of the time, date and place of the incident and the activity participated in:

- 5 Provide details of the injury received:

- 6 State the name and address of the attending or treating doctor or doctor certifying death:

.....

Signature of injured person or legal personal representative of deceased person Date

.....

Full name, position and signature of official representative of the prescribed organisation notifying the incident Date

Note. This form is to be lodged with the Sporting Injuries Committee as soon as possible after the incident.

OFFICIAL NOTICES**Appointments****CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999**

Parole Board

Appointment of Alternate Chairperson

HER Excellency the Governor, on the advice of the Executive Council and pursuant to the provisions of the Crimes (Administration of Sentences) Act 1999, has approved the appointment of The Honourable Deirdre Frances O'CONNOR as Alternate Chairperson of the Parole Board for a period of three (3) years dating on and from 3 May 2004 up to and including 2 May 2007.

JOHN HATZISTERGOS,
Minister for Justice,
Minister Assisting the Premier on Citizenship

POLICE ACT 1990

Appointment under section 24(1)

HER Excellency the Governor and the Executive Council upon the recommendation of the Minister for Police, has approved, pursuant to the provisions of the Police Act 1990, that the officer listed below be appointed to the position as specified:

Police Service of NSW

Kenneth Edward Moroney, Commissioner of Police [commencing on and from 30 May 2004].

JOHN WATKINS, M.P,
Minister for Police

MINES INSPECTION ACT 1901

Appointment Of Chief Inspector

I, Professor Marie Bashir, AC, Governor of the State of New South Wales, with the advice of the Executive Council and pursuant to the provisions of section 32 (1) of the Mines Inspection Act 1901, appoint ROBERT WILLIAM REGAN as Chief Inspector of Mines commencing from midnight 28 May 2004.

Signed and sealed at Sydney, this 28th day of April 2004.

By Her Excellency's Command

KERRY HICKEY, M.P.,
Minister for Mineral Resources

NSW Fisheries

FISHERIES MANAGEMENT ACT 1994

Fisheries Management (Aquaculture) Regulation 2002

Clause 39 (4) – Notice of Aquaculture Lease Renewal

THE Minister has renewed the following class 1 Aquaculture Leases:

OL87/101 within the estuary of the Clyde River, having an area of 0.8363 hectares to Rodney Elliott of Batemans Bay, NSW, for a term of 15 years expiring on 22 June 2018.

OL72/305 within the estuary of Pambula River, having an area of 0.1860 hectares to Philip Whatman of Pambula, NSW, for a term of 15 years expiring on 13 April 2018.

OL58/091 within the estuary of Hawkesbury River, having an area of 3.7529 hectares to Paul Moxham and Robert Moxham of Brooklyn, NSW, for a term of 15 years expiring on 2 July 2018.

OL73/017 within the estuary of the Manning River, having an area of 0.6737 hectares to Clift Oysters Pty Ltd of Tuncurry, NSW, for a term of 15 years expiring on 13 August 2018.

OL87/196 within the estuary of the Manning River, having an area of 0.4056 hectares to Clift Oysters Pty Ltd of Tuncurry, NSW, for a term of 15 years expiring on 20 July 2018.

OL88/025 within the estuary of the Manning River, having an area of 0.5468 hectares to Clift Oysters Pty Ltd of Tuncurry, NSW, for a term of 15 years expiring on 28 November 2018.

OL73/216 within the estuary of Wallis Lake, having an area of 2.8315 hectares to Mr Rinaldo Lani of Forster, NSW, for a term of 15 years expiring on 6 October 2018.

OL59/017 within the estuary of the Wapengo Lake, having an area of 0.9321 hectares to Mr Kevin Douglas Williams and Ms Janis Lynette Mann, of Bermagui, NSW, for a term of 15 years expiring on 14 January 2019.

OL88/046 within the estuary of Moruya River, having an area of 0.5156 hectares to Talinga Pty Ltd of Broulee NSW, for a term of 15 years expiring on 14 April 2019.

STEVE DUNN,
Director-General, NSW Fisheries

FISHERIES MANAGEMENT ACT 1994

Notice of Receipt of Application for Aquaculture Lease Notification under s.163 (7) of the *Fisheries Management Act 1994*, and cl.33 of the *Fisheries Management (Aquaculture) Regulation 2002*

NSW Fisheries advises that three applications have been received for new aquaculture (oyster) leases over public water land for the purposes of cultivating Sydney Rock oysters. Applications lodged by Bodalla Local Aboriginal Land Council, location is Wagonga Inlet for areas described as follows:

1. AL04/001 – approx 11.34 hectares over former oyster lease OL67/011 terminated on 17 June 2003.
2. AL04/002 – approx 0.765 hectares over former oyster lease OL65/174 terminated on 24 April 2002.
3. AL00/046 – approx. 1.05 hectares over former lease OL68/451 terminated on 7 November 1999.

NSW Fisheries is calling for written submissions from any person supporting or objecting to any or all of these oyster lease proposals, citing reasons for the support/objection.

NSW Fisheries is also calling for expressions of interest from persons or corporations interested in leasing any or all of the areas specified above, for the purposes of aquaculture. An expression of interest must be in the form of a written response referring to the relevant lease number(s), to be signed and dated with a return address. If additional expressions of interest are received, NSW Fisheries may offer the areas for leasing through a competitive public tender process.

If leases are tendered, a successful tender may be required to submit a Development Application to the local Council to be assessed under Part 4 (integrated approvals) of the *Environmental Planning and Assessment Act 1979*. This process would include the successful applicant seeking landowners consent from the Department of Lands. If granted the leases will be subject to standard covenants and conditions of an aquaculture lease as imposed by NSW Fisheries, and any other condition imposed by Council or other approval/consent authorities.

Specific details of the proposed leases can be obtained, or enquiries made with NSW Fisheries, Aquaculture Administration Section, Port Stephens on (02) 4982 1232.

Objections or expressions of interest for consideration in the determination of the applications must be received at the address below, within 30 days from the date of publication of this notification.

Executive Director, Aquaculture & Sustainable Fisheries, Aquaculture Administration Section, Port Stephens Fisheries Centre, Private Bag 1, NELSON BAY, NSW, 2315.

STEVE DUNN,
Director-General, NSW Fisheries

F97/289

FISHERIES MANAGEMENT ACT 1994

Section 11 Notification – Fishing Closure

Sydney Harbour (Port Jackson) and Tributaries

I, Steve Dunn, amend the fishing closure notification “Sydney Harbour (Port Jackson) and Tributaries” published in Government Gazette No. 194 on 8 December 2003 as follows:

1. by replacing the wording “hauling nets as prescribed by clauses 23, 26 and 27 of the Regulation” with the wording “the **hauling net (general purpose)**, the **garfish net (hauling)**, the **pilchard, anchovy bait net (hauling)**” in Column 1 of Schedule 14(b)
2. by removing the wording “clause 23 of the” in Column 1 of Schedule 15
3. by removing the wording “clause 23 of the” in Column 1 of Schedule 16
4. by removing the wording “clause 27 of the” in Column 1 of Schedule 17

The amendment is effective from the date of publication.

STEVE DUNN,
Director-General, NSW Fisheries

FISHERIES MANAGEMENT (GENERAL) REGULATION 2002

NSW Guided Recreational Charter Fishing Boat Licences

IN accordance with the provisions of clause 317 (4) of the Fisheries Management (General) Regulation 2002, the vessels listed in Table 1 have been granted a NSW Guided Recreational Marine and Estuarine Charter Fishing Boat Licence following a review.

In accordance with the provisions of clause 313 of the Fisheries Management (General) Regulation 2002, third party review applications must be lodged with the Director-General, NSW Fisheries, within 30 days of the date of this Gazette. Inquiries regarding third party review applications should be directed to NSW Fisheries on (02) 9527 8581.

STEVE DUNN,
Director-General, NSW Fisheries

Table 1

List of Boats granted a Charter Fishing Boat Licence following a review as at 31 December 2003

Name of Boat	CFB Number	Licence Granted	Main Port of Operation <i>(Note that a vessel may operate from more than one NSW port)</i>
CAVANBAH ⁺	21737	Transferable	BRUNSWICK HEADS
SEA URCHIN II ⁺	21551	Transferable	MACLEAY SOUTH WEST ROCKS
RELIANCE II ⁺	441	Transferable	HUNTER NEWCASTLE
FAME	18715	Non-Transferable	PORT JACKSON SYDNEY HARBOUR
SYLVIA C	18645	Non-Transferable	PORT JACKSON SYDNEY HARBOUR
BIANCA (previously ACTION CAT)	12452	Non-Transferable	PORT HACKING *
ROMANDA ⁺	21050	Transferable	PORT HACKING
CANYON RUNNER ⁺	21642	Transferable	KIAMA
REEL TIME ⁺	21685	Transferable	JERVIS BAY HUSKISSON
SILVER STAR ⁺	21786	Transferable	GREENWELL POINT NOWRA
HIGHLANDER ⁺	21644	Transferable	GREENWELL POINT NOWRA

NOTE:

1. The boat marked with an asterix (*) is a boat that was previously issued with a transferable charter fishing boat licence (*Government Gazette* No. 60 dated 30 March 2001). This licence was cancelled following a third party review. Following cancellation, the non-transferable charter fishing boat licence as indicated in Table 1 above was granted under the review provisions of the Fisheries Management (General) Regulation 2002.
2. Boats marked with a cross (†) denote boats that were previously issued non-transferable charter fishing boat licences (*Government Gazette* No. 85 dated 16 May 2003; *Government Gazette* No. 144 dated 13 September 2002). Following the decision of the Administrative Decisions Tribunal in *Smith v Minister for Fisheries* [2003] NSWADT 84, the transferable charter fishing boat licences as indicated in Table 1 above were issued in place of the previously issued non-transferable charter fishing boat licences under the review provisions of the Fisheries Management (General) Regulation 2002.

F92/144

FISHERIES MANAGEMENT ACT 1994

Notification under section 8 – Fishing closure
Pacific Oyster Control

I Paul O'Connor, prohibit the taking of oysters (of any species) by any person, from all estuarine waters of NSW which are used for the purposes of oyster cultivation, or from any other waters where oysters exist, unless the removal and relocation of such oysters complies with the provisions set out in the Schedules to this notification, as administered by NSW Fisheries.

This prohibition will be effective for a period of five (5) years from the date of publication unless sooner varied or revised by notification of the Director-General, NSW Fisheries.

PAUL O'CONNOR,
Acting Director-General, NSW Fisheries

Note: For the purposes of this notification:

- 1 The term 'sticks' includes sticks of timber and all other materials in use as substitutes for timber sticks.
- 2 The term 'caught sticks' includes sticks and the individual components for all other materials used for the purpose of catching natural oyster settlement.
- 3 The term 'nailed-out sticks' includes sticks that have been placed on an oyster lease in a single horizontal layer.
- 4 The term 'depot sticks' includes all caught sticks that are older than 12 months other than nail-out sticks.
- 5 The term 'stick culture' includes sticks, caught sticks, nail-out sticks and depot sticks.
- 6 The term 'container' includes all methods used to hold oysters other than by stick or tray.
- 7 The terms 'movements of oysters', and 'oyster consignments' do not include those consignments destined for direct sale for human consumption (i.e. packaged, purified, market grade oysters, consigned to a wholesaler or retailer). Nor do these terms include those consignments being moved within an estuary unless otherwise specified.
- 8 The term 'random inspection' is defined as an inspection of an oyster lease, or oysters held for the purpose of relaying, undertaken by a Fisheries Officer at the discretion of a NSW Fisheries Regional Manager.
- 9 The taking of oysters (of any species) by any person from the waters of the Tweed River, Brunswick River, Richmond River, Clarence River and Georges River is also subject to the provisions of the QX Disease Closure established under Section 183 of the Fisheries Management Act 1994, due to the presence of a declared disease (*Marteiliosis*).

SCHEDULE 1

Pacific Oyster Management Plan

Pacific Oysters (*Crassostrea gigas*) are a declared a noxious fish in all waters within the State of New South Wales, other than the waters of Port Stephens and its tributaries, under the Fisheries Management (General) Regulation 2002.

This schedule outlines a management plan to control the spread of Pacific Oysters. For the purposes of this management plan, oyster-producing estuaries have been divided into eleven (11) Zones (1 to 11). This management plan also applies to all shellfish hatcheries, unless otherwise specified.

- 1 Tweed River, Richmond River and Clarence River.
- 2 Brunswick River.
- 3 Wooli River, Bellinger River, Kalang River, Sandon River.
- 4 Macleay River and Nambucca River.
- 5 Hastings River
- 6 Camden Haven River, Manning River.
- 7 Wallis Lake
- 8 Port Stephens and its tributaries.
- 9 Hunter River, Brisbane Waters and Hawkesbury River.
- 10 Georges River.
- 11 Crookhaven River, Shoalhaven River, Clyde River, Moruya River, Tuross Lake, Wagonga Inlet, Lake Wapengo, Bermagui River, Merimbula Lake, Pambula Lake, Wonboyn Lake and all other oyster producing estuaries in NSW south of the Georges River.

The provisions of this management plan are as follows:

- 1 Each oyster grower in Zones 1, 2, 3, 4, 5 and 6, must notify the local Fisheries Officer immediately of any occurrences of the Pacific Oyster on their leases.
- 2 Inspection criteria for oyster leases in each estuary are prescribed in Schedule 2. If these criteria are exceeded, the noxious fish provisions (section 213) of the Fisheries Management Act 1994 may be applied to the permit holder or the leaseholder concerned.
- 3 All movements of oysters between estuaries must be recorded in an Oyster Shipment Log Book as described in Schedule 3.
- 4 Inspection criteria for all inter-estuarine movements of oysters are prescribed in Schedule 4. If the number of Pacific Oysters in a consignment exceed these criteria, the consignment will not be permitted to move, or if detected by random inspection in transit the consignment will be required to be returned to the estuary of origin.
- 5 Movements of oysters from Zone 8 (Port Stephens and its tributaries) will be restricted to culled single oysters larger than a ten (10) cent piece. No movement of stick culture will be permitted from Port Stephens or its tributaries to any other estuary.
- 6 No movements of oysters are permitted from the Tweed River, Richmond River and Clarence River (Zone 1), the Brunswick River (Zone 2), and the Georges River (Zone 10) to estuaries in any other Zone.
- 7 No movements of oysters are permitted into Zone 2 and Zone 3 estuaries.
- 8 No movements of oysters are permitted into Zone 4 from estuaries south of the Manning River (Zone 6).
- 9 No movement of stick culture is permitted into the Hastings River (Zone 5).

- 10 No oysters may be removed from a lease subject to a noxious fish order, and placed on any other lease, unless the oysters are first inspected by a Fisheries Officer and comply with the inspection criteria prescribed in Schedule 4.
- 11 No oysters are to be placed on a lease, subject to a noxious fish order, without the prior agreement of the local Fisheries Officer.
- 12 No movements of oyster spat and/or larvae are permitted from any hatchery unless the shipment complies with a Hatchery Contamination Minimisation Protocol approved by the Executive Director of Aquaculture and Sustainable Fisheries.
- 13 All other movements of oysters will be permitted.
- 14 Where oysters are required to be inspected, they must be presented for inspection in a suitable condition, on clean trays. The oysters and trays must be cleaned of mud, algae or encrusting organisms. Where oysters are to be moved in bins, the oysters must be presented for inspection on trays.
- 15 Treatment of oysters to remove Pacific Oysters will be a matter for individual growers. Treatment used must kill Pacific Oysters to an extent that will result in compliance with the criteria in Schedules 2 and 4.

SCHEDULE 2

Inspection Criteria for Oyster Leases

- 1 All lease inspections will be carried out by a Fisheries Officer or other person authorised by the Director-General of NSW Fisheries.
- 2 The following Zone criteria apply to the inspection of all oyster leases:

Zones 1, 2, 3, 4, 5 and 6. Tweed River, Richmond River, Clarence River, Brunswick River, Wooli River, Bellinger River, Kalang River, Sandon River, Macleay River, Hastings River, Nambucca River, Camden Haven River, Manning River.

Leases with caught sticks: Not more than one identifiable Pacific Oyster per 100 sticks permitted.

Leases with depot sticks: Not more than one (1) identifiable Pacific Oyster per 100 sticks permitted.

Leases with nail-out sticks: Not more than one (1) identifiable Pacific Oyster per 100 sticks permitted

All other leases: Not more than one (1) identifiable Pacific Oyster on any three (3) trays up to 1.8 metres (6 feet) in length or on any two (2) trays over 1.8 metres (6 feet) in length, permitted. Where other containers are used, not more than one (1) identifiable Pacific Oyster per 1,800 oysters, permitted.

Zone 7. Wallis Lake

Leases with caught sticks: Not more than three (3) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with depot sticks: Not more than one (3) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with nail-out sticks: Not more than one identifiable Pacific Oyster per 100 sticks, permitted.

All other leases: Not more than one (1) identifiable Pacific Oyster on any three (3) trays up to 1.8 metres (6 feet) in length or on any two (2) tray over 1.8 metres (6 feet) in length, permitted. Where other containers are used, not more than one (1) identifiable Pacific Oyster per 1,800 oysters, permitted.

Zone 8. Port Stephens and tributaries

No limits specified on the number of Pacific Oysters permitted on leases.

Zone 9. Hunter River, Brisbane Waters, Hawkesbury River

Leases with caught sticks: Not more than four (4) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with depot sticks: Not more than four (4) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with nail-out sticks: Not more than four (4) identifiable Pacific Oyster per 100 sticks, permitted.

All other leases: Not more than one (1) identifiable Pacific Oyster on any two (2) tray (irrespective of length), permitted. Where other containers are used, not more than one (1) identifiable Pacific Oyster per 600 oysters, permitted.

Zones 10 and 11. Georges River, Crookhaven River, Shoalhaven River, Clyde River, Moruya River, Wagonga Inlet, Wapengo Lagoon, Bermagui River, Merimbula Lake, Pambula Lake, Wonboyn Lake and all other oyster producing estuaries in NSW south of the Georges River.

Leases with caught sticks: Not more than five (5) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with depot sticks: Not more than five (5) identifiable Pacific Oyster per 100 sticks, permitted.

Leases with nail-out sticks: Not more than five (5) identifiable Pacific Oyster per 100 sticks, permitted.

All other leases: Not more than one (1) identifiable Pacific Oyster on any one (1) tray (irrespective of length), permitted. Where other containers are used, not more than one (1) identifiable Pacific Oyster per 600 oysters, permitted.

- 3 Where an oyster lease inspection in Zones 7, 9, 10 and 11, indicates more than one (1) identifiable Pacific Oyster per 100 sticks, or per any two (2) trays (irrespective of length), or where other containers are used, more than one (1) identifiable Pacific oyster per 1,800 oysters, the permit holder or the leaseholder concerned must comply with the directions of the NSW Fisheries Regional Manager regarding the removal of Pacific Oysters from the lease. Where the permit holder or the leaseholder concerned fails to comply with the directions of the NSW Fisheries Regional Manager, the noxious fish provisions of the Fisheries Management Act 1994 may be applied to the permit holder or the leaseholder concerned.

SCHEDULE 3

Oyster Shipment Log Book System

All movements of oysters, other than those within an estuary or those destined for direct sale for human consumption, are subject to the Oyster Shipment Log Book system. Oyster Shipment Log Books are available on application from the NSW Fisheries Aquaculture Administration Branch, Private Bag 1, Nelson Bay, NSW 2315.

- 1 Details of all shipments of oysters, other than those within an estuary or those destined for direct sale for human consumption must be recorded in an Oyster Shipment Log Book prior to shipment.
- 2 Prior to the shipment of a consignment of oysters between estuaries, the shipping permit holder must contact the local District Fisheries Office (not less than 2 days prior to shipment) and identify the shipper, the nature of the shipment and its destination and the Oyster Shipment Logbook shipment permit number (top right hand corner). Where an inspection is deemed to be required, the Fisheries Office will contact the shipping permit holder within 24 hours to confirm the inspection.
- 3 Prior to shipment or inspection, the shipping permit holder must record on all four (4) quadruplicate copies of the Oyster Shipment Log Book sheets, details of the destination (including inter-State), quantity (bag equivalents) and form (trays, sticks etc.) of oysters to be shipped.
- 4 When an inspection is deemed to be required, the inspecting Fisheries Officer must sign all four quadruplicate copies of the Oyster Shipment Log Book sheets and clearly state in writing on the sheets whether or not the consignment passed inspection. The inspecting Fisheries Officer is to retain the pink copy (copy 2) for the consignment. A record of all shipment notifications and shipment inspections (pink copy 2) will be retained by the local District Fisheries Office.
- 5 If the consignment passes inspection, it must be kept isolated from all other oysters and shipped within 48 hours of the inspection taking place.
- 6 Where a shipment has passed inspection, the local Fisheries Office must notify the receiving district Fisheries Office of the shipment details within 24 hours of the inspection.
- 7 For each shipment, the completed original white copy (copy 1) of the Oyster Shipment Log Book sheets, must accompany the shipment and be retained by the receiving permit holder.
- 8 Fisheries Officers may examine consignments at random in transit, or prior to the oysters being placed in the water, to ensure that log book details match the consignment. Where notification has not been given, or there is no accompanying log book sheet, in accordance with Schedule 3 (7) of this closure, or if the consignment is in breach of the QX Disease Closure or any other oyster Closure established under the Fisheries Management Act 1994, the consignment may be detained and/or seized.
- 9 It is the responsibility of the permit holder on who's permit the receiving lease appears, to notify the receiving district Fisheries Office within 7 days of the arrival of the oysters (or subject to prior arrangement

made with the Fisheries Officer), of details of the shipment, including, where the oysters have been placed (on which lease and where on that lease).

- 10 The Oyster Shipment Log Book, or an original white copy (copy 1) of the Oyster Shipment Log Book that has accompanied a shipment, must be made available to a Fisheries Officer for inspection on demand.
- 11 The holder of an Oyster Shipment Log Book must at the end of each month in which a shipment has occurred, forward all blue copies (copy 3) for those shipments to the NSW Fisheries Aquaculture Management Branch at the address specified above.

SCHEDULE 4

Inspection Criteria for Oyster Consignments

- 1 All inspections will be carried out by a Fisheries Officer or other person authorised by the Director-General of NSW Fisheries.
- 2 No inspections are required for consignments moving into Port Stephens.
- 3 The Inspection Criteria for other oyster consignments are as follows:

Consignments into estuaries in Zones 1, 4, 5 and 6: Tweed River, Richmond River, Clarence River, Macleay River, Hastings River, Nambucca River, Camden Haven River, Manning River.

Consignments of caught sticks, depot sticks and nail-out sticks (where permitted): Not more than one (1) identifiable Pacific Oyster per any 300 sticks.

All other consignments: Not more than one (1) identifiable Pacific Oyster in any nine (9) trays up to 1.8 metres (6 feet) in length or on any six (6) trays over 1.8 metres (6 feet) in length. Where other containers are used, not more than one (1) Pacific Oyster per 5,400 oysters.

Consignments into estuaries in Zones 7, 8, 9 and 10: Wallis Lake, Hunter River, Brisbane Waters, Hawkesbury River, Georges River, Crookhaven River, Shoalhaven River, Clyde River, Moruya River, Wagonga Inlet, Wapengo Lagoon, Bermagui River, Merimbula Lake, Pambula Lake, Wonboyn Lake and all other oyster producing estuaries in NSW south of the Georges River.

Consignments of caught sticks, depot sticks and nail-out sticks: Not more than one (1) identifiable Pacific Oyster per any 100 sticks.

All other consignments: Not more than one (1) identifiable Pacific Oyster in any bag or in any three (3) trays up to 1.8 metres (6 feet) in length or on any two (2) trays over 1.8 metres (6 feet) in length. Where other containers are used, not more than one (1) Pacific Oyster per 1,800 oysters.

Consignments of oyster spat and/or larvae from Hatcheries: Shipments from hatcheries are subject to the movement criteria for the Zone for which the shipment is destined. All shipments of oyster spat and/or larvae must comply with a Hatchery Contamination Minimisation Protocol approved by the Executive Director of Aquaculture and Sustainable Fisheries.

Consignments within an estuary: Movements of oysters wholly within an estuary are not subject to inspection. However, the leaseholder must take all reasonable action to ensure that the relayed oysters comply with the criteria for movement within the Zone.

- 4 Where an inspection is required, 20% of the consignment will be inspected unless otherwise specified.
- 5 The frequency of inspections for oyster consignments are as follows:

Consignments from hatcheries: Random consignments of oyster spat and/or oyster larvae originating from hatcheries will be subject to inspection at the receiving estuary in accordance with the provisions of Hatchery Contamination Minimisation Protocol approved by the Executive Director of Aquaculture and Sustainable Fisheries.

All other consignments: The frequency of inspection for consignments permitted to be moved between estuaries are specified in the table below. The frequency of inspection for shipments an individual estuary may be defined in an Estuary Shipment Inspection Protocol approved by the Executive Director of Aquaculture and Sustainable Fisheries.

<i>Sending estuary Zone</i>	<i>Receiving estuary Zone</i>	<i>Inspection Requirement</i>
1	1	No inspection required.
2	1	No inspection required.
3	1, 4, 5, 6, 7, 8, 9, 10, 11	No inspection required.
4	1, 4, 5, 6, 7, 8, 9, 10, 11	No inspection required.
5	1, 4, 6, 7, 8, 9, 10, 11	Shipments into Zones 1 and 4, inspection required, or as prescribed in an Estuary Shipment Inspection Protocol. All other shipments may be subject to random inspection.
6	1, 4, 5, 6, 7, 8, 9, 10, 11	Shipments into Zones 1, 4 and 5, inspection required, or as prescribed in an Estuary Shipment Inspection Protocol. All other shipments may be subject to random inspection.
7	1, 5, 6, 7, 8, 9, 10, 11	Shipments into Zones 1, 4 and 5, inspection required, or as prescribed in an Estuary Shipment Inspection Protocol. All other shipments may be subject to random inspection.
8	1, 5, 6, 7, 8, 9, 10, 11	All shipments, inspection required, or as prescribed in an Estuary Shipment Inspection Protocol.
9	1, 5, 6, 7, 8, 9, 10, 11	Shipments into Zones 1, 5, 6 and 7, inspection required, or as prescribed in an Estuary Shipment Inspection Protocol. All other Shipments may be subject to random inspection.
10	-	No shipments to any other estuary permitted.
11	1, 5, 6, 7, 8, 9, 10, 11	Shipments into Zones 1, 5, 6, 7, 9 and 10 inspection required, or as prescribed in an Estuary Shipment Inspection Protocol. All other shipments may be subject to random inspection.

F92/144

FISHERIES MANAGEMENT ACT 1994

Notification under section 8 – Fishing Closure QX (Marteiliosis) Disease Control

I Paul O'Connor, prohibit the taking of oysters (of any species) by any person, from all estuarine waters of NSW which are used for the purposes of oyster cultivation, or from any other waters where oysters exist, unless the removal and relocation of such oysters complies with the provisions set out in the Schedules to this notification, as administered by NSW Fisheries.

This prohibition will be effective for a period of five (5) years from the date of publication unless sooner varied or revised by notification of the Director-General, NSW Fisheries.

PAUL O'CONNOR,
Acting Director-General, NSW Fisheries

Note: For the purposes of this notification:

The terms 'taking of oysters' does not include the taking of oysters destined for direct sale for human consumption (i.e. packaged, purified, market grade oysters, consigned to a wholesaler or retailer). Nor does the term include the taking of oysters for the purpose of relocating and relaying the oysters within an estuary unless otherwise specified.

SCHEDULE 1

QX Disease Management Plan

QX Disease (Marteiliosis = QX) is a declared disease under the Fisheries Management (Aquaculture) Regulation 2002.

This schedule outlines a management plan to control the spread of QX disease. For the purposes of this management plan, oyster-producing estuaries in NSW are divided into four (4) Categories (A to D) as follows:

- A Tweed River, Richmond River and Clarence River.
- B Brunswick River.
- C Georges River.
- D All other estuaries in NSW.

The provisions of this management plan are as follows:

- 1 No movements of oysters are permitted from the Tweed River, Richmond River and Clarence River (Category A), the Brunswick River (Category B), and the Georges River (Category C) to any other estuary in NSW (Category D).
- 2 No movements of oysters are permitted into the Brunswick River (Category B) and the Georges River (Category C) from the Tweed River, Richmond River and Clarence River (Category A).
- 3 No movements of oysters are permitted between the Georges River (Category C) and the Brunswick River (Category B).
- 4 No movements of oysters are permitted from Category A, B, and C estuaries to areas adjacent to any estuary for culling purposes, other than those movements permitted under this plan.

- 5 All movements of oysters between estuaries that are permitted under this plan must be recorded in an Oyster Shipment Log Book as described in Schedule 2.
- 6 All oyster movements are also subject to the provisions of the Pacific Oyster Closure and any other oyster Closure established under the Fisheries Management Act 1994.

—————
SCHEDULE 2

Oyster Shipment Log Book System for the
Movement of Oysters

All movements of oysters, other than those within an estuary or those destined for direct sale for human consumption, are subject to the Oyster Shipment Log Book system. Oyster Shipment Log Books are available on application from the NSW Fisheries Aquaculture Administration Branch, Private Bag 1, Nelson Bay, NSW 2315.

- 1 All shipments of oysters, other than those within an estuary or those destined for direct sale for human consumption must be recorded in the Oyster Shipment Log Book prior to shipment.
- 2 Prior to the shipment of a consignment of oysters between estuaries, the shipping permit holder must contact the local District Fisheries Office (not less than 2 days prior to shipment) and identify the shipper, the nature of the shipment and its destination and the Oyster Shipment Logbook shipment permit number (top right hand corner of the shipment sheet).
- 3 Prior to shipment, the shipping permit holder must record on all four (4) quadruplicate copies of the Oyster Shipment Log Book sheets, details of the destination (including inter-State), quantity (bag equivalents) and form (trays, sticks etc.) of oysters to be shipped.
- 4 For each shipment, the completed original white copy (copy 1) of the Oyster Shipment Log Book sheets, must accompany the shipment and be retained by the receiving permit holder.
- 5 Fisheries Officers may examine consignments at random in transit, or prior to the oysters being placed in the water, to ensure that log book details match the consignment. Where notification has not been given, or there is no accompanying log book sheet, in accordance with Schedule 2 (4) of this closure, or if the consignment is in breach of any other oyster Closure established under the Fisheries Management Act 1994, the consignment may be detained and/or seized.
- 6 The Oyster Shipment Log Book, or an original white copy (copy 1) of the Oyster Shipment Log Book that has accompanied a shipment, must be made available to a Fisheries Officer for inspection on demand.
- 7 The holder of an Oyster Shipment Log Book must at the end of each month in which a shipment has occurred, forward all blue copies (copy 3) for those shipments to the NSW Fisheries Aquaculture Management Branch at the address specified above.

F99/171

FISHERIES MANAGEMENT ACT 1994

Section 11 Notification – Revocation of Section 8
Fishing Closure

Berringer Lake and Lake Conjola

I, Steve Dunn, revoke the fishing closure notification “Berringer Lake and Lake Conjola” published in *Government Gazette* No. 88 of 6 August 1999.

STEVE DUNN,
Director-General, NSW Fisheries

Note: This closure is no longer necessary due to amendments to the Fisheries Management (General) Regulation 2002 and the fishing closure titled “Caulerpa”.

Department of Infrastructure, Planning and Natural Resources

Infrastructure and Planning



New South Wales

State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area (Amendment No 5)

under the

Environmental Planning and Assessment Act 1979

His Excellency the Lieutenant Governor, with the advice of the Executive Council, has made the following State environmental planning policy under the *Environmental Planning and Assessment Act 1979* in accordance with the recommendation made by the Minister for Infrastructure and Planning. (S04/00310/PC)

CRAIG JOHN KNOWLES, M.P.,
Minister for Infrastructure and Planning

Clause 1 State Environmental Planning Policy No 59—Central Western Sydney
Economic and Employment Area (Amendment No 5)

State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area (Amendment No 5)

under the

Environmental Planning and Assessment Act 1979

1 Name of Policy

This Policy is *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area (Amendment No 5)*.

2 Aims of Policy

The aims of this Policy are:

- (a) to allow a Precinct plan to be approved for certain land at Eastern Creek before an extraction and rehabilitation plan is prepared for that land, but to require regard to be had to an extraction and rehabilitation plan before consent is granted to development of that land, and
- (b) to update a note quoting a provision of a Regulation made under the *Environmental Planning and Assessment Act 1979* because the provision has been remade and altered.

3 Land to which Policy applies

This Policy applies to land at Eastern Creek, comprised of Lot 2 DP 262213, Lot 1 DP 400697, Lot W DP 419612 and Lot 11 DP 558723.

4 Amendment of State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area

State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area is amended as set out in Schedule 1.

State Environmental Planning Policy No 59—Central Western Sydney
Economic and Employment Area (Amendment No 5)

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 4)

[1] Clause 12 Necessity for Precinct plan and sec 94B contributions plan

Omit the note to the clause. Insert instead:

Note. Clause 271 of the *Environmental Planning and Assessment Regulation 2000* provides as follows:

271 Precinct plans and section 94B contributions plans under SEPP 59

- (1) Pursuant to section 80 (11) of the Act, a development application in respect of land within a Precinct within the meaning of *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area* must not be determined by the consent authority unless the following plans have been prepared for the land:
 - (a) a Precinct plan within the meaning of that Policy, and
 - (b) a contributions plan under section 94B of the Act.
- (2) Despite subclause (1), a consent authority may dispense with the need for the plans referred to in that subclause if:
 - (a) the development application is, in the opinion of the consent authority, of a minor nature, or
 - (b) the development application relates to quarrying or associated activities within the Greystanes Precinct within the meaning of *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area*, and the development the subject of the application will not, in the opinion of the consent authority, prevent the attainment of the zoning objectives under that Policy for the land, or
 - (c) the developer has entered into an agreement with the consent authority that makes adequate provision with respect to the matters that may be the subject of those plans, or
 - (d) the development application relates to land zoned "Employment" under *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area* and the proposed development consists of:
 - (i) the erection of a building or the carrying out of a work on the land for the purpose of any land use that was being lawfully carried out on the land immediately before the commencement of this Regulation, or
 - (ii) the enlargement, expansion or intensification of any such land use, or

State Environmental Planning Policy No 59—Central Western Sydney
Economic and Employment Area (Amendment No 5)

Schedule 1 Amendments

- (e) the development application relates to land zoned “Employment” under *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area* and the proposed development consists of a subdivision:
 - (i) that relates to a single lot that existed at the commencement of this Regulation, and
 - (ii) that does not result in more than one additional lot being created, and
 - (iii) that does not dedicate land as a public road, or
- (f) the development is in the St Bartholomews Precinct as shown by distinctive colouring on Sheet 3 of the map referred to in *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area*.

[2] Clause 18 Approval of draft Precinct plan

Insert after clause 18 (4):

- (5) An extraction and rehabilitation plan referred to in Schedule 1 need not be prepared for land at Eastern Creek comprised of Lot 2 DP 262213, Lot 1 DP 400697, Lot W DP 419612 and Lot 11 DP 558723 before a Precinct plan is approved for that land, but the consent authority is to have regard to such an extraction and rehabilitation plan before granting consent to any development on that land.



New South Wales

Cessnock Local Environmental Plan 1989 (Amendment No 77)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (N01/00099/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Cessnock Local Environmental Plan 1989 (Amendment No 77)

Cessnock Local Environmental Plan 1989 (Amendment No 77)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Cessnock Local Environmental Plan 1989 (Amendment No 77)*.

2 Aims of plan

This plan aims:

- (a) to introduce a new zone, namely, Zone No 5 (e) (the Special Uses (Aerodrome) Zone) into *Cessnock Local Environmental Plan 1989 (the 1989 plan)*, and
- (b) to rezone the land to which this plan applies from Zone No 1 (v) (the Rural (Vineyards) Zone) to the Special Uses (Aerodrome) Zone under the 1989 plan.

3 Land to which plan applies

- (1) To the extent that this plan introduces a new zone, it applies to all land within the City of Cessnock under the provisions of the 1989 plan.
- (2) To the extent that this plan rezones land, it applies to Lot 3, DP 546671, Lot 2110, DP 789531, Lot 210, DP 559578 and Lot 111, DP 1013069, Parish of Rothbury, County of Northumberland, at Pokolbin, and known as the Cessnock Aerodrome and adjoining land, as shown edged heavy black and lettered "5 (e)" on the map marked "Cessnock Local Environmental Plan 1989 (Amendment No 77)" deposited in the office of the Cessnock City Council.

4 Amendment of Cessnock Local Environmental Plan 1989

Cessnock Local Environmental Plan 1989 is amended as set out in Schedule 1.

Cessnock Local Environmental Plan 1989 (Amendment No 77)

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 4)

[1] Clause 5 Definitions

Insert in appropriate order in the definition of *the map* in clause 5 (1):

Cessnock Local Environmental Plan 1989 (Amendment No 77)

[2] Clause 8 Zones indicated on the map

Insert in appropriate order:

Zone No 5 (e) (Special Uses (Aerodrome) Zone)—black edging and lettered “5 (e)”.

[3] Clause 9 Zone objectives and development control table

Insert in appropriate order in the Table to the clause:

Zone No 5 (e) Special Uses (Aerodrome) Zone

1 Objectives of zone

The objectives of this zone are:

- (a) to enable development for aerodromes, airline terminals and associated and ancillary purposes on aerodrome land and adjoining land associated with it, whether in public or private ownership, and
- (b) to enable development for compatible tourist-related purposes identified in a development control plan for Cessnock Aerodrome approved by the Council.

2 Without consent

Nil.

3 Only with consent

Aerodromes; airline terminals; bed and breakfast accommodation; commercial premises; commercial signs; commercial vineyards; community centres; conference facilities; environmental facilities; hangars; helipads; heliports; holiday cabins; integrated tourist development; reception establishments; refreshment rooms; rural industries; sheds; tourist recreation facilities; tourist-related craft shops; tourist-related shops; transport terminals; utility installations; warehouses.

4 Prohibited

Any purpose other than a purpose included in item 3.



Gosford Local Environmental Plan No 440

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (N01/00161/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Gosford Local Environmental Plan No 440

Gosford Local Environmental Plan No 440

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Gosford Local Environmental Plan No 440*.

2 Aims of plan

- (1) This plan aims to allow, with the consent of Gosford City Council, the carrying out of development of the land to which this plan applies, which is zoned 4 (a1) General Industrial, for the purpose of 3 motor showrooms.
- (2) This plan amends the definition of *motor showroom* in *Gosford Local Environmental Plan No 22*.

3 Land to which plan applies

This plan applies to that part of Lots 1, 2 and 3, DP 1013986, Kangoo Road, Somersby, zoned 4 (a1) General Industrial, as shown edged heavy black on the map marked "Gosford Local Environmental Plan No 440" deposited in the office of the Council of the City of Gosford.

4 Relationship to other environmental planning instruments

Gosford Local Environmental Plan No 22 is amended as set out in Schedule 1.

Gosford Local Environmental Plan No 440

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 4)

[1] Clause 5 Definitions

Omit the definition of *motor showroom* from clause 5 (1).

Insert instead:

motor showroom means a building or place used for the display and sale of motor vehicles (including accessories) and after-sales service of these vehicles.

[2] Clause 22 Development of land at Kangoo Road, Somersby

Insert “that part of” after “This clause applies to”.

[3] Clause 22 (1)

Insert “within Zone No 4 (a1)” after “Somersby”.

[4] Clause 22 (1)

Omit “413”. Insert instead “440”.

[5] Clause 22 (2)

Insert “on each part of the three lots to which this clause applies” after “showroom”.

[6] Clause 22 (3)

Omit “413”. Insert instead “440”.



New South Wales

Holroyd Local Environmental Plan 1991 (Amendment No 44)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (P03/00165/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Holroyd Local Environmental Plan 1991 (Amendment No 44)

Holroyd Local Environmental Plan 1991 (Amendment No 44)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Holroyd Local Environmental Plan 1991 (Amendment No 44)*.

2 Aims of plan

This plan aims to identify the cottage on the land to which this plan applies as a heritage item under the provisions of *Holroyd Local Environmental Plan 1991*.

3 Land to which plan applies

This plan applies to Lots 56–58, DP 886 and known as 11 O'Connor Street, Guildford.

4 Amendment of Holroyd Local Environmental Plan 1991

Holroyd Local Environmental Plan 1991 is amended by inserting after item 119 in Schedule 1 the following item:

119A	11 O'Connor Street, Guildford	Fibro and weatherboard cottage, c 1938–1946	Lots 56–58 DP 886
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New South Wales

Hurstville Local Environmental Plan 1994 (Amendment No 49)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S04/00018/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Hurstville Local Environmental Plan 1994 (Amendment No 49)

Hurstville Local Environmental Plan 1994 (Amendment No 49)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Hurstville Local Environmental Plan 1994 (Amendment No 49)*.

2 Aim of plan

The aim of this plan is to amend *Hurstville Local Environmental Plan 1994* by amending the date that the Council of the City of Hurstville adopted a revised version of *Development Control Plan No 14—Exempt and Complying Development*, following a review of the development control plan.

3 Land to which plan applies

This plan applies to all land within the Hurstville City local government area.

4 Amendment of Hurstville Local Environmental Plan 1994

Hurstville Local Environmental Plan 1994 is amended by omitting from clause 9A the matter “3 November 1999” wherever occurring and by inserting instead the matter “17 December 2003”.

Kogarah Local Environmental Plan 1998 (Amendment No 36)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S02/00948/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)



Lane Cove Local Environmental Plan 1987 (Amendment No 53)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S02/02520/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Lane Cove Local Environmental Plan 1987 (Amendment No 53)

Lane Cove Local Environmental Plan 1987 (Amendment No 53)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Lane Cove Local Environmental Plan 1987 (Amendment No 53)*.

2 Aims of plan

- (1) This plan aims to reclassify the land to which this plan applies, being public land owned by Lane Cove Municipal Council, from community land to operational land within the meaning of the *Local Government Act 1993 (the 1993 Act)*.
- (2) This plan also:
 - (a) incidentally makes more extensive provisions in *Lane Cove Local Environmental Plan 1987 (the 1987 plan)* for the classification or reclassification of public land as operational land as a consequence of major changes to the statutory scheme in section 30 (Reclassification of community land as operational) of the 1993 Act, and
 - (b) provides a separate clause and schedule in the 1987 plan for the classification or reclassification of public land as community land.

3 Land to which plan applies

This plan applies to part of Lot 67, DP 13316, Lloyd Rees Drive, Lane Cove West, as shown edged heavy black on the map marked "Lane Cove Local Environmental Plan 1987 (Amendment No 53)" deposited in the office of Lane Cove Municipal Council.

4 Amendment of Lane Cove Local Environmental Plan 1987

Lane Cove Local Environmental Plan 1987 is amended as set out in Schedule 1.

Lane Cove Local Environmental Plan 1987 (Amendment No 53)

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 4)

[1] Clauses 19CA and 19CB

Omit clause 19CA. Insert instead:

19CA Classification and reclassification of public land as operational land

- (1) The public land described in Schedule 7 is classified, or reclassified, as operational land for the purposes of the *Local Government Act 1993*, subject to this clause.
- (2) Land described in Columns 1 and 2 of Part 1 of Schedule 7, to the extent (if any) that it is a public reserve, ceases to be a public reserve on the commencement of the relevant amending plan and, by the operation of that plan, is discharged from all trusts, estates, interests, dedications, conditions, restrictions and covenants affecting the land or any part of the land except:
 - (a) those (if any) specified for the land in Column 3 of Part 1 of Schedule 7, and
 - (b) any reservations that except land out of a Crown grant relating to the land, and
 - (c) reservations of minerals (within the meaning of the *Crown Lands Act 1989*).
- (3) In this clause, ***the relevant amending plan***, in relation to land described in Part 1 of Schedule 7, means the local environmental plan that inserted the description of the land into that Part.
- (4) Before the relevant amending plan inserted a description of land into Part 1 of Schedule 7, the Governor approved of subclause (2) applying to the land.
- (5) Land described in Part 2 of Schedule 7:
 - (a) to the extent (if any) that the land is a public reserve, does not cease to be a public reserve, and
 - (b) continues to be affected by any trusts, estates, interests, dedications, conditions, restrictions or covenants by which it was affected before its classification, or

Lane Cove Local Environmental Plan 1987 (Amendment No 53)

Schedule 1 Amendments

reclassification, as the case requires, as operational land.

19CB Classification and reclassification of public land as community land

The public land described in Schedule 8 is classified, or reclassified, as community land for the purposes of the *Local Government Act 1993*.

[2] Schedules 7 and 8

Omit Schedule 7. Insert instead:

Schedule 7 Classification and reclassification of public land as operational land

(Clause 19CA)

Part 1 Interests changed

Column 1	Column 2	Column 3
Locality	Description	Trusts etc not discharged

Part 2 Interests not changed

Column 1	Column 2
Locality	Description
Lane Cove West	
Lloyd Rees Drive	Part Lot 67, DP 13316, as shown edged heavy black on the map marked "Lane Cove Local Environmental Plan 1987 (Amendment No 53)".

Lane Cove Local Environmental Plan 1987 (Amendment No 53)

Amendments

Schedule 1

**Schedule 8 Classification and reclassification of
public land as community land**
(Clause 19CB)

Column 1

Column 2

Locality

Description

Maitland Local Environmental Plan 1993 (Amendment No 67)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (N01/00086/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)



Maitland Local Environmental Plan 1993 (Amendment No 70)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (N02/00242/PC)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Maitland Local Environmental Plan 1993 (Amendment No 70)

Maitland Local Environmental Plan 1993 (Amendment No 70)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Maitland Local Environmental Plan 1993 (Amendment No 70)*.

2 Aims of plan

- (1) This plan aims to rectify a number of anomalies on the map supporting *Maitland Local Environmental Plan 1993 (the 1993 plan)* by rezoning a number of properties located in Ashtonfield, Thornton, Aberglasslyn and East Maitland in the City of Maitland and, in particular:
 - (a) to rezone part of the land from Zone 7 (b) Environmental Protection Buffer to Zone 2 (a) Residential under the 1993 plan, and
 - (b) to rezone part of the land from Zone 2 (a) to Zone 7 (b) under the 1993 plan, and
 - (c) to rezone part of the land from Zone 7 (c) Environmental Protection General to Zone 4 (b) Light Industrial under the 1993 plan, and
 - (d) to rezone part of the land from Zone 4 (b) to Zone 7 (c) under the 1993 plan, and
 - (e) to rezone part of the land from Zone 1 (b) Secondary Rural Land to Zone 1 (c) Rural Small Holdings under the 1993 plan, and
 - (f) to rezone part of the land from Zone 1 (b) to Zone 2 (a) under the 1993 plan, and
 - (g) to rezone part of the land from Zone 2 (a) to Zone 1 (b) under the 1993 plan, and
 - (h) to rezone part of the land from Zone 2 (a) to Zone 1(a) Prime Rural Land under the 1993 plan, and

-
- (i) to rezone part of the land from Zone 1 (a) to Zone 2 (a) Prime Rural Land under the 1993 plan, and
 - (j) to rezone part of the land from Zone 2 (a) to Zone 1 (c) under the 1993 plan, and
 - (k) to rezone part of the land from Zone 1 (c) to Zone 2 (a) under the 1993 plan.
- (2) This plan also aims to correct an error in the boundary of a heritage item of State significance (being the former Smith's Flour Mill, Newcastle Road, East Maitland and currently shown on Sheet 12 of the heritage map), by excluding one allotment (being Lot 3, DP 996973) and showing the new boundary of the remaining 3 allotments (being Lots 1–3, DP 785381).

3 Land to which plan applies

- (1) To the extent that this plan rezones land from Zone 7 (b) to Zone 2 (a), it applies:
 - (a) to so much of Lots 1126, 1135, 1136 and 1156, DP 1032278, Lot 7191, DP 881678 and Lots 1201–1210 and 1250, DP 1045316, Castlemaine Close and Ballydoyle Drive, Ashtonfield, as is shown edged heavy black and lettered "2 (a)" on Sheets 1 and 2 of the map marked "Maitland Local Environmental Plan 1993 (Amendment No 70)" deposited in the office of the Council of the City of Maitland, and
 - (b) to so much of Lots 2405–2410 and 2416, DP 1030218, Lots 3117 and 3122 and 3123, DP 1049066, Lot 5338, DP 1005342, Lots 5114–5116, DP 1004598 and Lot 3100, DP 1049066, Thornton, as is shown edged heavy black and lettered "2 (a)" on Sheets 4 and 5 of that map.
- (2) To the extent that this plan rezones land from Zone 2 (a) to Zone 7 (b), it applies:
 - (a) to so much of Lot 20, DP 1022926, Ashtonfield, as is shown edged heavy black and lettered "7 (b)" on Sheet 2 of that map, and
 - (b) to so much of Lot 3100, DP 1049066, Thornton, as is shown edged heavy black and lettered "7 (b)" on Sheet 5 of that map.
- (3) To the extent that this plan rezones land from Zone 7 (c) to Zone 4 (b), it applies to so much of Lots 814, 815 and 817, DP 1032401 and Lot 902, DP 1045461, Huntingdale Drive, Thornton, as is shown edged heavy black and lettered "4 (b)" on Sheet 3 of that map.

Clause 3 Maitland Local Environmental Plan 1993 (Amendment No 70)

- (4) To the extent that this plan rezones land from Zone 4 (b) to Zone 7 (c), it applies to so much of Lot 824, DP 1032401, Huntingdale Drive, Thornton, as is shown edged heavy black and lettered "7 (c)" on Sheet 3 of that map.
- (5) To the extent that this plan rezones land from Zone 1 (b) to Zone 1 (c), it applies to so much of Lots 1–3 and 8 and 9, DP 855275, East Maitland, as is shown edged heavy black and lettered "1 (c)" on Sheet 6 of that map.
- (6) To the extent that this plan rezones land from Zone 1 (b) to Zone 2 (a), it applies to so much of Lots 21–31, DP 855275 and Lots 45 and 46, DP 863423, East Maitland, as is shown edged heavy black and lettered "2 (a)" on Sheet 6 of that map.
- (7) To the extent that this plan rezones land from Zone 2 (a) to Zone 1 (b), it applies to so much of Lots 41 and 42, DP 846326 and Lot 124, DP 862386, East Maitland, as is shown edged heavy black and lettered "1 (b)" on Sheet 6 of that map.
- (8) To the extent that this plan rezones land from Zone 2 (a) to Zone 1 (a), it applies to so much of Lot 124, DP 862386, Lot 112, DP 1002442, Lot 826, DP 1034069, Lot 119, DP 838632 and Lot 144, DP 846900, East Maitland, as is shown edged heavy black and lettered "1 (a)" on Sheet 6 of that map.
- (9) To the extent that this plan rezones land from Zone 1 (a) to Zone 2 (a), it applies to so much of Lots 89, 90 and 93–98, DP 1002442, Lot 127, DP 1008517, Lot 79, DP 838632 and Lots 122–124, DP 846276, East Maitland, as is shown edged heavy black and lettered "2 (a)" on Sheet 6 of that map.
- (10) To the extent that this plan rezones land from Zone 2 (a) to Zone 1 (c), it applies to so much of Lots 1 and 2, DP 1016707, Lots 38–40 and 44–46, DP 1039649 and Lots 503 and 504, DP 834498, Aberglasslyn, as is shown edged heavy black and lettered "1 (c)" on Sheet 7 of that map.
- (11) To the extent that this plan rezones land from Zone 1 (c) to Zone 2 (a), it applies to so much of Lots 409 and 411–415, DP 844222, Aberglasslyn, as is shown edged heavy black and lettered "2 (a)" on Sheet 7 of that map.

Maitland Local Environmental Plan 1993 (Amendment No 70)

Clause 4

-
- (12) To the extent that this plan corrects an error in the boundary of a heritage item of State significance, it applies to Lots 1–3, DP 785381, bounded by Newcastle Road (New England Highway), Mill Street and a lane, East Maitland, as shown edged heavy black on Sheet 8 of that map.

4 Amendment of Maitland Local Environmental Plan 1993

Maitland Local Environmental Plan 1993 is amended as set out in Schedule 1.

Maitland Local Environmental Plan 1993 (Amendment No 70)

Schedule 1 Amendments

Schedule 1 Amendments

(Clause 4)

[1] Clause 5 How are terms defined in this plan?

Insert in appropriate order in the definition of *The map* in clause 5 (1):

Maitland Local Environmental Plan 1993 (Amendment No 70)—Sheets 1–7

[2] Clause 31 What controls apply with respect to heritage items or conservation areas?

Insert at the end of the definition of *Heritage map*:

, as amended by the maps (or, if any sheets or maps are specified, by the specified sheets of the maps) marked as follows:

Maitland Local Environmental Plan 1993 (Amendment No 70)—Sheet 8



Randwick Local Environmental Plan 1998 (Amendment No 33)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S02/02560/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Randwick Local Environmental Plan 1998 (Amendment No 33)

Randwick Local Environmental Plan 1998 (Amendment No 33)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Randwick Local Environmental Plan 1998 (Amendment No 33)*.

2 Aims of plan

The aims of this plan are:

- (a) to introduce new planning and design provisions for Maroubra Junction Town Centre,
- (b) to encourage high quality design in all new development and within the public domain within Maroubra Junction Town Centre,
- (c) to encourage a continued mix of land uses within Maroubra Junction Town Centre which complement and support the commercial centre, and
- (d) to rezone certain land to the General Business Zone under *Randwick Local Environmental Plan 1998* for the purposes of commercial, retail, residential and community development.

3 Land to which plan applies

This plan applies to the land comprising the Maroubra Junction Town Centre, as identified by heavy black edging on the map marked "Randwick Local Environmental Plan 1998 (Amendment No 33)", deposited in the office of Randwick City Council.

4 Amendment of Randwick Local Environmental Plan 1998

Randwick Local Environmental Plan 1998 is amended as set out in Schedule 1.

Randwick Local Environmental Plan 1998 (Amendment No 33)

Amendments

Schedule 1

Schedule 1 Amendments

(Clause 4)

[1] Clause 42D

Insert after clause 42C:

42D Maroubra Junction Town Centre

- (1) This clause applies to the land comprising the Maroubra Junction Town Centre, as identified by heavy black edging on the map marked "Randwick Local Environmental Plan 1998 (Amendment No 33)", deposited in the office of Randwick City Council.
- (2) The Council must not grant consent to the carrying out of development on land within the Maroubra Junction Town Centre unless it is satisfied that the proposed development is consistent with the zone objectives for the land and the following objectives for the Maroubra Junction Town Centre:
 - (a) to achieve high quality design in all new developments and improvements undertaken in the public domain,
 - (b) to encourage a vibrant and active town centre that provides a range of facilities and services that benefit the locality and local government area,
 - (c) to provide opportunities for residential development in the town centre that complement the primary business function of the town centre,
 - (d) to encourage a variety of housing forms that complements development within the town centre and do not impact adversely upon the amenity of surrounding residential areas,
 - (e) to ensure that social and cultural needs are considered with any development proposals in the town centre,
 - (f) to encourage and facilitate the provision of vehicular access and off-street parking to support businesses in the town centre,
 - (g) to ensure that public transport and associated facility needs are considered and promoted with any development proposals and public domain improvements in town centre,

Randwick Local Environmental Plan 1998 (Amendment No 33)

Schedule 1 Amendments

-
- (h) to require and encourage environmentally sustainable approaches to future land use and development, and
- (i) to improve the overall environmental quality of the Maroubra Junction Town Centre.
- (3) Clauses 31, 32 and 33 do not apply to the land within the Maroubra Junction Town Centre.
- (4) The maximum number of storeys requirement of the Maroubra Junction Town Centre Development Control Plan adopted by the Council on 18 November 2003 applies to the development of land within the Maroubra Junction Town Centre as if it were incorporated into this plan.
- (5) For the purpose of subclause (4), the maximum number of storeys must correspond with the building height as set out in the Table to subclause (6).
- (6) For the purpose of this clause the maximum height of development is as follows:

Table

No of storeys	Maximum building height to underside of ceiling (m)
1	4.5
2	9.0
3	12.0
4	15.0
5	18.0
6	21.0
7	24.0
8	26.7

Randwick Local Environmental Plan 1998 (Amendment No 33)

Amendments

Schedule 1

-
- (7) For the purpose of this clause, building height is to be calculated as the distance measured vertically from ground level taken from each point on the boundary of the site to the underside of the ceiling of the topmost floor.
 - (8) For the purpose of this clause, *storeys* means habitable floors, excluding underground car parking.

[2] Clause 49

Insert at the end of the definition of *the map* in clause 49:

Randwick Local Environmental Plan 1998 (Amendment No 33)



Strathfield Local Environmental Plan No 104

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S03/01218/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 Strathfield Local Environmental Plan No 104

Strathfield Local Environmental Plan No 104

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *Strathfield Local Environmental Plan No 104*.

2 Aims of plan

The aims of this plan are:

- (a) to reserve part of the land to which this plan applies for the purposes of a proposed local road by rezoning it Zone No 9 (a) (Proposed Local Road) under the *Strathfield Planning Scheme Ordinance*, and
- (b) to rezone the remainder of the land to which this plan applies to Zone No 2 (b) (Residential B) and Zone No 10 (Mixed Use) under the *Strathfield Planning Scheme Ordinance*.

3 Land to which plan applies

This plan applies to land shown by distinctive colouring and edging on the map marked "Strathfield Local Environmental Plan No 104" deposited in the office of Strathfield Municipal Council.

4 Amendment of Strathfield Planning Scheme Ordinance

Strathfield Planning Scheme Ordinance is amended by inserting the following words in appropriate order in paragraph (b) of the definition of ***Scheme map*** in clause 4 (1):

Strathfield Local Environmental Plan No 104



City of Wollongong Local Environmental Plan 1990 (Amendment No 220)

under the

Environmental Planning and Assessment Act 1979

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (W03/00083/S69)

DIANE BEAMER, M.P.,
Minister Assisting the Minister for Infrastructure
and Planning (Planning Administration)

Clause 1 City of Wollongong Local Environmental Plan 1990 (Amendment No 220)

City of Wollongong Local Environmental Plan 1990 (Amendment No 220)

under the

Environmental Planning and Assessment Act 1979

1 Name of plan

This plan is *City of Wollongong Local Environmental Plan 1990 (Amendment No 220)*.

2 Aims of plan

This plan aims to reclassify the land to which this plan applies from community land to operational land within the meaning of the *Local Government Act 1993*, with the effect that:

- (a) any public reserve status affecting the land ceases to apply to the land, and
- (b) any trusts, estates, interests, dedications, conditions, restrictions and covenants affecting the land or any part of the land are discharged.

3 Land to which plan applies

This plan applies to land situated in the City of Wollongong, being part of Lot 8, DP 261948 and part of Lot 190, DP 854481, Lawrence Hargrave Drive, Wombarra, as shown edged heavy black on the map marked "City of Wollongong Local Environmental Plan 1990 (Amendment No 220)" deposited in the office of Wollongong City Council.

City of Wollongong Local Environmental Plan 1990 (Amendment No 220) Clause 4

4 Amendment of City of Wollongong Local Environmental Plan 1990

The *City of Wollongong Local Environmental Plan 1990* is amended by inserting at the end of Schedule 4B the following words:

Part of Lot 8, DP 261948 and part of Lot 190, DP 854481, Lawrence Hargrave Drive, Wombarra, as shown edged heavy black on the map marked “City of Wollongong Local Environmental Plan 1990 (Amendment No 220)”—*City of Wollongong Local Environmental Plan 1990 (Amendment No 220)*.

Natural Resources

WATER ACT 1912

AN APPLICATION under Part 2, being within a proclaimed (declared) local area under Section 10 of the Water Act, 1912, as amended.

An application for a Licence within a proclaimed local area as generally described hereunder has been received as follows:

Gwydir River Valley

Bernard Anthony Lionel BYRNES for a Diversion Channel and two (2) pumps on Moomin Creek on Lot 13, DP44067, Parish of Uranbah, County of Benarba for water supply for stock and domestic purposes and irrigation of 324 hectares (cotton). To combine and replace existing Moomin Creek entitlements by way of the permanent transfer of 972 megalitres. L.O. Papers 90SL100759. GA2472273.

Deirdre Fern TRUSLOVE for a pump on an Unnamed Watercourse located on Crown Land adjacent to Lot 531, DP755846, Parish of Uralla, County of Sandon for domestic purposes. New Licence. L.O. Papers 90SL100757.

Lionel Selwyn GOODE for a pump on Tipperary Gully Located on Lot 141, DP755807, Parish of Arding, County of Sandon for stock and domestic purposes. New Licence. L.O. Papers 90SL100758. GA2472272.

Written objections to the applications specifying the grounds thereof may be made by any statutory authority or local occupier within the proclaimed (declared) area, whose interest may be affected and must be lodged with the Department's Manager, Resource Access, Tamworth within 28 days as specified in the Act.

GEOFF CAMERON,
Manager Resource Access

Department of Infrastructure,
Planning and Natural Resources
PO Box 550
Tamworth NSW 2340

WATER ACT, 1912

APPLICATIONS under Part 2, within proclaimed (declared) local areas under section 5 (4) of the Act, 1912.

APPLICATIONS for licences under section 10 for works within a proclaimed (declared) local area as generally described hereunder have been received from:

Macquarie River Valley

GRAHAM GREGORY TOOLE, LEONIE GAI TOOLE AND WACMAT PTY LTD for a dam and a pump on an Unnamed Watercourse, Lot 403 DP1060306, Parish of Jesse, County of Roxburgh for conservation of water and water supply for stock and domestic purposes (new licence) (80SL96157).

DAVID COLIN MCKIBBIN AND PENELOPE JUDITH MCKIBBIN for a pump on the Bell River, Lot 1 DP1017171, Parish of Neurea, County of Gordon for water supply for domestic purposes and irrigation of 16 hectares (trees & lucerne) (partly replacing existing licence by way of permanent transfer) (80SL96158).

AN APPLICATION for a new authority for Joint Water Supply under Section 20 for works within a proclaimed (declared) area as generally described hereunder has been received from:

TARWONG LANE RIVER SCHEME for a pump on the Macquarie River, Lot 306 DP754318 (Reserve 90871), Parish of Micketymulga, County of Lincoln for water supply for stock and domestic purposes (new authority) (80SA10619).

Written objections to the applications specifying grounds thereof, may be made by any statutory authority or local occupier within the proclaimed local (declared) area and must be lodged with the Departments Regional Office at Dubbo, within twenty-eight (28) days as prescribed by the Act.

APPLICATIONS for a licence under Part 5 of the Water Act, 1912, as amended has been received from:

PORTIA PTY LTD for a proposed artesian bore on Lot 6 DP604038, Parish of Mowlma, County of Leichhardt for water supply for stock and domestic purposes and for water supply to the occupiers of Lot 91 DP607984, Parish of Yarragoora, Lot 7 DP604038, Parish of Mowlma, Lots 34, 58, 68 and 85 DP754240, Parish of Ningear, Reserves 38733 and 51230, Parish of Mowlma, all County of Leichhardt (replacement bore for Beanbah No. 1 GW004009) (80BL242237).

Written objections to the applications specifying grounds of how your interests may be affected may be made by any statutory authority or local occupier within the proclaimed local (declared) area and must be lodged with the Departments Office at Dubbo, by 28th May 2004 as prescribed by the Act.

Any inquiries regarding the above should be directed to the undersigned (telephone 68 842 560). GA2: 306704.

FRED HUNDY,
Water Access Manager, Macquarie

Department of Infrastructure,
Planning and Natural Resources
PO Box 717
DUBBO NSW 2830

WATER ACT 1912

APPLICATION for a license under Part 2 of the Water Act 1912 being within a Proclaimed (declared) Local Area under section 5(4) of the Act.

An Application for a License under Section 10 of Part 2 of the Water Act, has been received as follows:

Lachlan River Valley

Borapine Pastoral Company Pty Ltd for 9 pumps and a diversion channel on Lachlan River, Borapine Creek and an unnamed watercourse on Lots 5, 24, 26, 23, 2, 9, 10 and pt 4 DP750146, Parish of Whyaddra, County of Dowling, for water supply for stock, domestic and irrigation of 283.50 hectares. (Lucerne, cereal & sorghum) (Replacement License – amalgamation of existing entitlement, – no increase in area, no increase in allocation – increase in pumping capacity). (GA2: 466326) (70SL090978).

Written Objections specifying grounds thereof, may be made by any statutory authority or local occupier within the proclaimed local area whose interests may be effected and must be lodged with the Department within 28 days of the date of this publication as prescribed by the Act.

VIV RUSSELL,
Resource Access Manager
Central West Region

Department of Infrastructure,
Planning and Natural Resources
P O Box 136,
Forbes NSW 2871 (02) 6852 1222

WATER ACT 1912

AN APPLICATION under Part 2 of the Water Act, 1912, being within a Proclaimed (declared) Local Area under Section 5 (4) of the Act.

AN APPLICATION for a licence under Section 10 of Part 2 of the Water Act, 1912, has been received as follows:

Murray River Valley

Robert Charles DUNCAN for a pump on Frenchmans Creek on Crown Land South of Lot 4073/766548, Parish of Wangumma, County of Tara, (Dunedin Park Station) for irrigation (replacement licence - due to permanent transfer of water entitlement – no increase in commitment to Murray River Storages.) (Ref: 60SL085481) (GA2:512607).

Written objections to the applications specifying the grounds thereof may be made by any statutory authority or local occupier within the proclaimed local area and must be lodged with the Department's Natural Resource Project Officer at Buronga within twenty eight (28) days as provided by the Act.

P.WINTON,
Natural Resource Project Officer
Murray Region

Department of Infrastructure,
Planning and Natural Resources
PO Box 363
32 Enterprise Way
BURONGA NSW 2739
Ph: (03)50219400

Department of Lands

DUBBO OFFICE

142 Brisbane Street (PO Box 865), Dubbo, NSW 2830

Phone: (02) 6841 5200 Fax: (02) 6841 5231

REVOCATION OF RESERVATION OF CROWN LAND

PURSUANT to section 90 of the Crown Lands Act 1989, the reservation of Crown land specified in Column 1 of the Schedule hereunder is revoked to the extent specified opposite thereto in Column 2 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2
Land District: Mudgee	The whole being
Local Government Area: Mudgee Shire Council	<i>Lot Sec. D.P. No. Parish County</i>
Locality: Waurdong	59 756918 Waurdong Wellington
Reserve No. 74945	of an area of 292.2ha
Public Purpose: Generally	
Notified: 18 April 1952	
File Reference: DB04H104	

Notes: Conversion of Perpetual Lease 109026 to Incomplete Purchase 109026.

PLAN OF MANAGEMENT FOR CROWN RESERVE UNDER DIVISION 6 OF PART 5 OF THE CROWN LANDS ACT 1989 AND CROWN LANDS REGULATION 2000.

A draft plan of management has been prepared for the Crown reserve described hereunder, which is under the trusteeship of the Mudgee Memorial Combined Sportsground Trust.

Inspection of the draft plan can be made at the Office of Mudgee Memorial Combined Sportsground; Dubbo Lands Office, 142 Brisbane Street, Dubbo; and Mudgee Shire Council, 86 Market Street, Mudgee respectively during normal business hours.

Representations are invited from the public on the plan. These may be made in writing for a period of 28 days commencing from 7 May 2004 and should be sent to Vickie Chatfield, Manager, Orana, Department of Lands, 142 Brisbane Street, Dubbo.

VICKIE CHATFIELD,
Manager, Orana
Crown Land NSW

Description of Reserve

*Land District — Mudgee;
Local Government Area — Mudgee;
Parish — Bumberra;
County — Phillip*

Reserve No. 81127 for the public purposes of public recreation, racecourse and showground notified in the Government Gazette of 3 October 1958 known as Mudgee Memorial Combined Sportsground.

Location: Mudgee.

File No: DB03R3.

DRAFT ASSESSMENT OF CROWN LAND UNDER PART 3 OF THE CROWN LANDS ACT, 1989 AND THE CROWN LANDS REGULATION, 1995.

THE Minister Assisting the Minister for Natural Resources (Lands) has prepared a draft land assessment for the Crown lands described hereunder.

Inspection of this draft assessment can be made at the Department of Lands, 142 Brisbane Street Dubbo and at the offices of Coolah Shire Council during normal business hours.

Submissions are invited from the public on the draft assessment. These may be made in writing for a period commencing from 10 May 2004 until 7 June 2004 and should be sent to the District Manager, Department of Lands, PO Box 865, DUBBO NSW 2830. Telephone enquiries should be directed to the Dubbo Office on (02) 6841 5200. Please quote reference number DB88H275.

Description

164.4 hectares of Crown land located on the southern side of Round Mountain Road about 10 kilometres north east of Weetaliba comprising Lot 113 in DP724593, Parish of Neible, County of Napier, Local Government area of Coolah.

Reason: Consideration of application to purchase the land.

Contact Officer: Kevin Campbell.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for
Natural Resources (Lands)

FAR WEST REGIONAL OFFICE
45 Wingewarra Street (PO Box 1840), Dubbo, NSW 2830
Phone: (02) 6883 3000 Fax: (02) 6883 3099

ERRATUM

IN the notification appearing in the *Government Gazette* of 27 February 2004, Folios 925 & 926, under the heading Alteration of Purpose of a Western Lands Lease (being Western Lands Lease 3868) the area referred to in Special Condition No 1 should have read 1800 hectares not 1662 hectares.

CRAIG KNOWLES, M.P.,
 Minister for Infrastructure and Planning
 Minister for Natural Resources

ASSIGNMENT OF NAME TO A RESERVE TRUST

PURSUANT to clause 4(3) of Schedule 8 to the Crown Lands Act 1989, the name specified in Column 1 of the Schedule hereunder is assigned to the reserve trust constituted as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

TONY KELLY, M.L.C.,
 Minister Assisting the Minister for Natural
 Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2
Byrock Recreation and Hall Reserve Trust	Reserve No. 81825 Public Purpose: Public Hall Public Recreation Notified: 31 July 1959 File Reference: WL86R87

GOULBURN OFFICE

159 Auburn Street (PO Box 748), Goulburn, NSW 2580
Phone: (02) 4828 6725 Fax: (02) 4828 6730

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance of the provisions of the Roads Act 1993, the roads hereunder described are closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the roads are extinguished.

ANTHONY BERNARD KELLY,
 Minister Assisting the Minister for Natural
 Resources (Lands)

Description

Parish – Binjura;
County – Beresford;
Land District – Cooma;
Council – Cooma Monaro

Lot 1 DP 1066668.

File Reference GB 03 H 136 :MB.

Note: On closing the land in Lot 1 DP 1066668 remains land vested in the Crown as Crown land.

GRAFTON OFFICE
76 Victoria Street (Locked Bag 10), Grafton, NSW 2460
Phone: (02) 6640 2000 Fax: (02) 6640 2035

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
 Minister Assisting the Minister for Natural
 Resources (Lands)

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 SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Donald John Sanderson (new member)	Dorrroughby Grass Reserve Trust	Reserve No. 58949 Public Purpose: Public Recreation Notified: 18 June 1926
Denis Bede Matthews (new member)		Reserve No. 54361 Public Purpose: Quarantine Notified: 14 January 1921 File Reference: GF03R26
Jill Mary Lemessurier (new member)		
Thomas Ralph Woodford (new member)		
Robyn Andrews (new member)		
Luc Michel Larcher (new member)		
Steven Francis McAlpin (new member)		

For a term commencing 7 May 2004 and expiring 6 May 2009.

HAY OFFICE**126 Lachlan Street (PO Box 182), Hay, NSW 2711****Phone: (02) 6993 1306 Fax: (02) 6993 1135****APPOINTMENT OF TRUST BOARD MEMBERS**

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Ian Thomas Maher (new member)	Finley Lake Trust	Reserve No. 88291
Bradley John Carlon (new member)		Public Purpose: Public Recreation Notified: 2 July 1971 File Reference: HY81R139

For a term commencing the date of this notice and expiring 30 May 2006.

NOTIFICATION OF CLOSING OF PUBLIC ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closure, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C.,
Minister assisting the Minister for
Natural Resources (Lands).

Description

*Land District of Hay;
Council of Hay*

Lot 170 D.P. 1066944, Parish of Hay, County of Waradgery, File No: HY 03 H 84.

Note: On closing, title for the land comprised in Lot 170 remains vested in the Hay Shire Council as Operational Land.

MAITLAND OFFICE

Cnr Newcastle Road & Banks Street (PO Box 6), East Maitland, NSW 2323

Phone: (02) 4934 2280

Fax: (02) 4934 2252

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

Description

Parish — Gosforth;
County — Northumberland;
Land District — Maitland;
Local Government Area — Maitland

Road Closed: Lot 1, D.P.1066725 at Rutherford.
File Reference: MD02 H247.

Schedule

On closing, the land within Lot 1, D.P.1066725 remains vested in Maitland City Council as operational land for the purposes of the Local Government Act 1993. Council's reference: 122/901 (286113)

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

Description

Parish — Kincumber;
County — Northumberland;
Land District — Gosford;
Local Government Area — Gosford

Road Closed: Lots 1 & 2, D.P.1062620 at Erina *subject to an easement to drain water, an easement to drain sewage, an easement to supply gas and an easement to drain water, created by Deposited Plan 1062620.*

File Reference: MD98 H117.

Schedule

On closing, the land within Lots 1 & 2, D.P.1062620 remain vested in Gosford City Council as operational land for the purposes of the Local Government Act 1993.

Council's reference: SA 56.

NOWRA OFFICE
5 O'Keefe Avenue (PO Box 309), Nowra, NSW 2541
Phone: (02) 4428 6900 Fax: (02) 4428 6988

**APPOINTMENT OF ADMINISTRATOR TO
MANAGE A RESERVE TRUST**

PURSUANT to section 117 of the Crown Lands Act 1989, the person specified in Column 1 of the Schedule hereunder is appointed as administrator for the term also specified in Column 1, of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserve referred to in Column 3 of the Schedule.

TONY KELLY, M.P.,
Minister Assisting the Minister for Natural
Resources (Lands).

—————
SCHEDULE 1

COLUMN 1	COLUMN 2	COLUMN 3
Linda Janet BUNCLARK	Helensburgh Public Hall Trust	Reserve No. 87211 Public Purpose: Public Hall Notified: 6 June 1969 Locality: Helensburgh West File No.: NA97 R 25

For a term of up to three months from this day.

ORANGE OFFICE**92 Kite Street (PO Box 2146), Orange NSW 2800****Phone: (02) 6393 4300 Fax: (02) 6362 3896****APPOINTMENT OF TRUST BOARD MEMBERS**

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Jacqueline Marjorie Abbott (new member)	Tichborne Recreation Reserve Trust	Reserve No. 23940 Public Purpose: Public Recreation Notified: 18 April 1896 File Reference: OE81R68/3
Jennifer Margaret Kingham (re-appointment)		
James William Kingham (re-appointment)		
June Barker (re-appointment)		

For a term commencing 18 June 2004 and expiring 17 June 2009.

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance to the provisions of the Roads Act 1993, the roads hereunder specified are closed and the road ceases to be public road and the rights of passage and access that previously existed in relation to the road are extinguished.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for
Natural Resources (Lands)

Description

Land District of Cowra and L.G.A – Cowra Shire Council

Road Closed: Lots 4 and 5, Deposited Plan 1044667, Parish Waugoola, County Bathurst.

File No: OE04H51.

Note: On closing, the land within Lots 4 & 5 in DP 1044667 remains vested in Cowra Shire Council as operational land for the purposes of the Local Government Act 1993.

Council's reference: R.03.01.00.

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Peter Boyd (re-appointment)	Yetholme Recreation Reserve Trust	Reserve No. 45152 Public Purpose: Public Recreations Notified: 13 April 1910 File Reference: OE80R344/4
Edward George Porter (re-appointment)		
Robert Bruce Porter (re-appointment)		

For a term commencing 18 June 2004 and expiring 17 June 2009.

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Susan Mary Luther (new member)	THE Reefs Recreation Reserve Trust	Reserve No. 90827 Public Purpose: Public Recreation Notified: 15 July 1977 File Reference: OE80R311/1
George William Whalan (new member)		
Charles Henry Lamburn (re-appointment)		

For a term commencing 31 July 2004 and expiring 30 July 2009.

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the

reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Rosemary Barber (new member)	Hartley Reserves Trust	Reserve No. 65140 Public Purpose: Resting Place Public Recreation Notified: 15 March 1935
Pamela Lynda Day (new member)		
Jonathan David Evans (new member)		Reserve No. 68666 Purpose: Public Recreation Notified: 22 September 1939
Bradley Barber (re-appointment)		
Seamus Casey (re-appointment)		
Ian Campbell (re-appointment)		Reserve No. 89136 Public Purpose: Public Recreation Public Hall Public Recreation Public Hall Notified: 25 January 1974 File Reference: OE80R226/4
Michael Robert Combs (re-appointment)		

For a term commencing 5 June 2004 and expiring 4 June 2009.

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder specified is closed and the road ceases to be public road and the rights of passage and access that previously existed in relation to the road are extinguished.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

Description

Land District and LGA of Lithgow

Road closed: Lot 1 DP1049889, Parish Cox, County Cook.
File Reference: OE01H85.

Note: On closing title to the land comprised in Lot 1 remains vested in the Crown.

ROADS ACT 1993

ORDER

Transfer of Crown Road to a Council

IN pursuance of the provisions of Section 151, Roads Act 1993, the Crown public roads specified in Schedule 1 are transferred to the Roads Authority specified in Schedule 2, hereunder, as from the date of publication of this notice and as from that date, the roads specified in Schedule 1 cease to be Crown public roads.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources
(Lands)

SCHEDULE 1

The Crown public road south of Lots 117 and 116 in Deposited Plan 757047 and east of Lot 116 in Deposited Plan 757047 and Lot A in Deposited Plan 392255, in Parishes Crete and Balfour, County Westmoreland and Land District of Oberon.

File Reference: OE04H127.

SCHEDULE 2

Road Authority: Oberon Council.

SYDNEY METROPOLITAN OFFICE
Level 12, Macquarie Tower, 10 Valentine Avenue, Parramatta 2150
(PO Box 3935), Parramatta, NSW 2124
Phone: (02) 9895 7657 Fax: (02) 9895 6227

TRUSTEES OF SCHOOLS OF ARTS
ENABLING ACT 1902

Appointment of Trustees

Guildford Soldiers Memorial School of Arts

Parish – St John;
County – Cumberland;
Land District – Metropolitan;
Local Government Area – Holroyd

IT is hereby notified for general information that the Office of John Alexander Palmer, Phillip Gordon and the Hon Laurie John Ferguson as trustees of the Guildford Soldiers Memorial School of Arts, have been declared vacant. The undermentioned persons have been elected as trustees at a meeting of members of the Guildford Soldiers Memorial School of Arts held in accordance with the provisions of Section 14 of the Trustees of Schools of Arts Enabling Act, 1902.

I therefore in pursuant of the power given to me in the same section approve of the undermentioned persons to be trustees of the Guildford Soldiers Memorial School of Arts, namely the Hon Kimberley Maxwell Yeadon MP and Laurie Donald Thomas Ferguson.

MN89R29.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

TAMWORTH OFFICE**25-27 Fitzroy Street (PO Box 535), Tamworth, NSW 2340****Phone: (02) 6764 5100 Fax: (02) 6766 3805****APPOINTMENT OF A TRUST BOARD MEMBER**

PURSUANT to section 93 of the Crown Lands Act 1989, the person whose name is specified in Column 1 of the Schedule hereunder is appointed, for the term of office specified in that column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister
for Natural Resources (Land)

SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Ian Halbourn Worley (new member)	Bowling Alley Point Recreation Reserve Trust	Reserve No. 96568 Public Purpose: Public Recreation Notified: 28 January 1983 Locality: Bowling Alley Point File No. TH89 R 16/2

For a term commencing the date of this notice and expiring
12 June 2008.

TAREE OFFICE**102-112 Victoria Street (PO Box 440), Taree, NSW 2430****Phone: (02) 6552 2788 Fax: (02) 6552 2816****NOTIFICATION OF CLOSING OF PUBLIC ROAD**

*Parish – Gloucester;
County Gloucester*

IN pursuance of the provisions of the Roads Act 1993, the roads hereunder described are closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished.

Road Closed: Lot 1 DP1054600 at Barrington.

File No TE02 H 26 Council Ref: R2/907.

On closing, the land within Lot 1 to vest in Gloucester Shire Council as operational land.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

Description

*Parish – Gorton;
County – Gloucester*

Road closed: Lot 1 DP1066707 at Mill Creek.

File No TE02 H 227 Council Ref: Doc No. 505270 JMcL:
DJH.

On closing, the land within Lot 1 to vest in Great Lakes Council as operational land.

WAGGA WAGGA REGIONAL OFFICE
Corner Johnston and Tarcutta Streets (PO Box 60), Wagga Wagga, NSW 2650
Phone: (02) 6937 2709 Fax: (02) 6921 1851

**DECLARATION OF LAND TO BE CROWN
LAND**

PURSUANT to Section 138 of the Crown Lands Act, 1989, the land described in the Schedule hereunder is hereby declared to be Crown land within the meaning of that Act.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

2004 until the 4th June 2004 and should be sent to the Land Assessment Officer, Department of Lands, PO Box 60 Wagga Wagga 2650. Please quote File Number WA04H11.

Reason for assessment: The Land Assessment was undertaken to identify the future use of the Crown land parcel.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

Description

*Land District — Tumbarumba;
Shire — Holbrook;
Parish — Bulalgee;
County — Wynyard*

Lot 119 in DP 757219, being land vested in the name of Holbrook Shire Council notified 26th March, 1976. File No: WA86 R 12.

ADDITION TO RESERVED CROWN LAND

PURSUANT to section 88 of the Crown Lands Act 1989, the Crown land specified in Column 1 of the Schedule hereunder is added to the reserved land specified opposite thereto in Column 2 of the Schedule.

TONY KELLY, M.L.C.,
Minister Assisting the Minister for Natural
Resources (Lands)

SCHEDULE

COLUMN 1	COLUMN 2
Land District: Tumbarumba	Reserve No. 220030
Local Government Area: Holbrook Shire Council	Public Purpose: Public Hall Public Recreation
Locality: Carabost	Notified: 25 August 1989
<i>Lot D.P. No. Parish County</i>	<i>Lot D.P. No. Parish County</i>
119 757219 Bulalgee Wynyard	89 757219 Bulalgee Wynyard
Area: 1011m2	New Area: 2276m2
File Reference: WA86R12	

**DRAFT ASSESSMENT OF CROWN LAND UNDER
PART 3 OF THE CROWN LANDS ACT, 1989 AND
THE CROWN LANDS REGULATION, 2000.**

THE Minister assisting the Minister for Natural Resources (Lands) has prepared a draft assessment for the Crown land described hereunder.

Inspection of this draft assessment can be made at the Wagga Wagga Office of the Department of Lands, on the corner of Johnston and Tarcutta Streets, Wagga Wagga, and the Tumbarumba Shire Council Chambers, Bridge Street, Tumbarumba, during normal business hours.

Representations are invited from the public on the draft assessment. These may be made in writing for a period of twenty eight (28) days commencing from the 7th May

Department of Mineral Resources

NOTICE is given that the following applications have been received:

EXPLORATION LICENCE APPLICATIONS

(04-517)

No. 2341, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 100 units, for Group 1, dated 27 April, 2004. (Cobar Mining Division).

(04-518)

No. 2342, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 36 units, for Group 1, dated 27 April, 2004. (Wagga Wagga Mining Division).

(04-519)

No. 2343, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 100 units, for Group 1, dated 27 April, 2004. (Cobar Mining Division).

(04-520)

No. 2344, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 94 units, for Group 1, dated 27 April, 2004. (Cobar Mining Division).

(04-521)

No. 2345, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 167 units, for Group 1, dated 27 April, 2004. (Orange Mining Division).

(04-522)

No. 2346, ROBUST RESOURCES PTY LIMITED (ACN 106 964 881), area of 100 units, for Group 1, dated 27 April, 2004. (Orange Mining Division).

(04-523)

No. 2347, MINEXCHANGE PROPRIETARY LIMITED (ACN 086 042 524) and DONALD JOHN PERKIN, area of 100 units, for Group 1, dated 29 April, 2004. (Orange Mining Division).

(04-524)

No. 2348, ALKANE EXPLORATION LTD (ACN 000 689 216), area of 7 units, for Group 1, dated 29 April, 2004. (Orange Mining Division).

(04-525)

No. 2349, MINEXCHANGE PROPRIETARY LIMITED (ACN 086 042 524) and DONALD JOHN PERKIN, area of 57 units, for Group 1, dated 30 April, 2004. (Orange Mining Division).

KERRY HICKEY M.P.,
Minister for Mineral Resources

NOTICE is given that the following applications have been granted:

EXPLORATION LICENCE APPLICATIONS

(T03-0043)

No. 2088, now Exploration Licence No. 6229, HAZELGROVE ENTERPRISES PTY LIMITED (ACN 068 604 473), Counties of Arrawatta and Gough, Map Sheet (9138), area of 36 units, for Group 6, dated 19 April, 2004, for a term until 18 April, 2006.

(T03-0888)

No. 2207, now Exploration Licence No. 6230, CHALLENGER GOLD LIMITED (ACN 090 166 528), Counties of Clarendon and Wynyard, Map Sheet (8527), area of 60 units, for Group 1, dated 20 April, 2004, for a term until 19 April, 2006.

(T03-0965)

No. 2223, now Exploration Licence No. 6231, KENNETH FRANK WATSON, BAMBOO HOLDINGS PTY LTD (ACN 009 284 253) and BIGSCENE INVESTMENTS PTY LTD (ACN 106 612 211), Counties of Gloucester and Hawes, Map Sheet (9134, 9234), area of 42 units, for Group 6, dated 20 April, 2004, for a term until 19 April, 2006.

(T03-0983)

No. 2241, now Exploration Licence No. 6232, IPSEITY PTY LIMITED (ACN 003 306 974), Counties of Argyle and Camden, Map Sheet (8928), area of 36 units, for Group 1, dated 20 April, 2004, for a term until 19 April, 2006.

(T04-0008)

No. 2272, now Exploration Licence No. 6233, STRAITS EXPLORATION (AUSTRALIA) PTY LTD (ACN 061 614 695), Counties of Ashburnham, Bathurst and Wellington, Map Sheet (8631, 8731), area of 23 units, for Group 1, dated 19 April, 2004, for a term until 18 April, 2006. As a result of the grant of this title, Exploration Licence No. 5914 has ceased to have effect.

KERRY HICKEY M.P.,
Minister for Mineral Resources

NOTICE is given that the following application has been refused:

EXPLORATION LICENCE APPLICATION

(T04-0035)

No. 2299, EVERGREEN ENERGY CORPORATION PTY LIMITED (ACN 095 292 685), County of St Vincent, Map Sheet (8926). Refusal took effect on 27 April, 2004.

KERRY HICKEY M.P.,
Minister for Mineral Resources

NOTICE is given that the following applications for renewal have been received:

(T96-1142)

Exploration Licence No. 5305, RODERICK SKINNER MCINTOSH, area of 4 units. Application for renewal received 30 April, 2004.

(T99-0196)

Exploration Licence No. 5737, AURIONGOLD EXPLORATION PTY LIMITED (ACN 067 813 932), area of 57 units. Application for renewal received 28 April, 2004.

(T01-0200)

Exploration Licence No. 5944, SUPERSORB MINERALS NL (RECEIVERS AND MANAGERS APPOINTED) (ACN 078 002 365), area of 16 units. Application for renewal received 21 April, 2004.

(T02-0009)

Exploration Licence No. 5947, GATEWAY MINING NL (ACN 008 402 391), area of 33 units. Application for renewal received 23 April, 2004.

(T01-0214)

Exploration Licence No. 5948, GODS GOLDEN CHI PTY LIMITED (ACN 087 384 012), area of 12 units. Application for renewal received 27 April, 2004.

(T02-0007)

Exploration Licence No. 5953, NEWCREST OPERATIONS LIMITED (ACN 009 221 505), area of 56 units. Application for renewal received 27 April, 2004.

KERRY HICKEY M.P.,
Minister for Mineral Resources

RENEWAL OF CERTAIN AUTHORITY

NOTICE is given that the following authority has been renewed:

(T99-0037)

Exploration Licence No. 5597, COMPASS RESOURCES N.L. (ACN 010 536 820), County of Roxburgh, Map Sheet (8831), area of 5 units, for a further term until 22 July, 2005. Renewal effective on and from 29 April, 2004.

KERRY HICKEY M.P.,
Minister for Mineral Resources

CANCELLATION OF AUTHORITY AT REQUEST OF HOLDER

NOTICE is given that the following authority has been cancelled:

(T02-0821)

Mining Purposes Lease No. 336 (Act 1973), HAMISH MCKENZIE COCHRANE, Parish of Birben, County of Finch; Map Sheet (8439-2-N, 8439-2-N), area of 1.998 hectares. Cancellation took effect on 27 April, 2004.

KERRY HICKEY M.P.,
Minister for Mineral Resources

PART CANCELLATIONS

NOTICE is given that the following authorities have been cancelled in part:

(T02-0824)

Mining Lease No. 1175 (Act 1973), MINERAL DEPOSITS (OPERATIONS) PTY LTD (ACN 083 091 963), Parish of Viney Creek, County of Gloucester, Map Sheet (9332-4-N, 9332-4-S).

Description of area cancelled:

An area of 406.5 hectares. For further information contact Titles Branch.

Part cancellation took effect on 26 March, 2004.

The authority now embraces an area of 1096 hectares.

(T02-0824)

Mining Lease No. 1261 (Act 1973), MINERAL DEPOSITS (OPERATIONS) PTY LTD (ACN 083 091 963), Parish of Viney Creek, County of Gloucester, Map Sheet (9332-4-N, 9332-4-S).

Description of area cancelled:

An area of 17.91 hectares. For further information contact Titles Branch.

Part cancellation took effect on 26 March, 2004.

The authority now embraces an area of 1217 hectares.

KERRY HICKEY M.P.,
Minister for Mineral Resources

Other Notices

CHILDREN (PROTECTION AND PARENTAL RESPONSIBILITY) ACT 1997

Safer Community Compact – Order

I, the Honourable Bob Debus Attorney General of the State of New South Wales, in pursuance of section 39 (1) of the Children (Protection and Parental Responsibility) Act 1997, do, by this my Order, approve the Orange Crime Prevention Plan July 2003 – June 2006 as a Safer Community Compact for the purposes of Division 3 of Part 4 of that Act.

This Order takes effect on 1 May 2004 remaining in force until 30 April 2007.

Signed at Sydney, this 3rd day of May 2004.

BOB DEBUS
Attorney General

CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

GOVERNOR

I, Professor Marie Bashir, AC, Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 224 (1) and 224 (3) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, vary the Proclamations published in the Government Gazette of 19 October 2001 and 23 August 1996 which declared Mannus Correctional Complex to be a correctional complex, and in variation thereof I declare Mannus Correctional Complex to be the area described hereunder, together with all buildings or premises which are now or may hereafter be erected thereon, viz.:

All that piece or parcel of land situate in the local government area of Tumbarumba Shire, Parish of Mannus and County of Selwyn, being the parts of Mannus State Forest No 795 shown by dark shading as Mannus Correctional Complex on Plan Catalogue Number 54491 in the NSW Department of Commerce Plan Room and having an area of 778.3 hectares or thereabouts.

This proclamation is to take effect on and from the date of publication in the *Government Gazette*.

Signed and sealed at Sydney, this 28th day of April 2004

By Her Excellency's Command

JOHN HATZISTERGOS,
Minister for Justice

GOD SAVE THE QUEEN!

GEOGRAPHICAL NAMES ACT 1966

Erratum

IN the notice referring to the discontinuation of the name and Rosebrook Public School, Folio 2196, 23th April 2004, the name was spelt incorrectly, the notice should read, Rosebrook Public School. This notice corrects that error.

W. WATKINS,
Chairman

Geographical Names Board
PO Box 143 Bathurst 2795

LAND AND ENVIRONMENT COURT ACT 1979

Schedule

Land And Environment Court Rules (Amendment No. 12) 2004

1. Name of Rules

These Rules may be cited as the Land and Environment Court Rules (Amendment No 12) 2004.

2. Commencement

These Rules commence on the day on which they are published in the Gazette.

3. Amendment of Principal Rules

The Land and Environment Court Rules 1996 are amended as follows—

- (i) by inserting in Part 1 immediately following Rule 5 the following new Rules:

5A—Overriding Purpose

- (1) The overriding purpose of these rules, in their application to civil proceedings, is to facilitate the just, quick and cheap resolution of the real issues in such proceedings.
- (2) The Court must seek to give effect to the overriding purpose when it exercises any power given to it by the rules or when interpreting any rule.
- (3) A party to civil proceedings is under a duty to assist the Court to further the overriding purpose and, to that effect, to participate in the processes of the Court and to comply with directions and orders of the Court.
- (4) A solicitor or barrister shall not, by his or her conduct, cause his or her client to be put in breach of the duty identified in (3).
- (5) The Court may take into account any failure to comply with (3) or (4) in exercising a discretion with respect to costs.

5B Directions and Case Management

- (1) The Court may, at any time and from time to time, give such directions and make such orders for the conduct of any proceedings as appears convenient (whether or not inconsistent with the rules) for the just, quick and cheap disposal of the proceedings.
- (2) Without limiting the generality of subrule (1) orders and directions may relate to:
 - (a) the filing of pleadings,
 - (b) the defining of issues, including requiring counsel or the parties to exchange memoranda in order to clarify issues,
 - (c) the provision of any essential particulars,
 - (d) the making of admissions,
 - (e) the filing of lists of documents, either generally or with respect to specific matters,
 - (f) the delivery or exchange of experts' reports and the holding of conferences of experts,

- (g) the provision of copies of documents, including the provision in electronic form,
- (h) the administration and answering of interrogatories, either generally or with respect to specific matters,
- (i) the service and filing of affidavits or statements of evidence or documents to be relied on by a specified date or dates,
- (j) the giving of evidence at the hearing, including whether evidence of witnesses in chief shall be given orally, or by affidavit or statement, or both,
- (k) the use of telephone or video conference facilities, video tapes, film projection, computer and other equipment and technology,
- (l) the provision of affidavit evidence by specified persons in support of an application for an adjournment,
- (m) a timetable with respect to any matters to be dealt with.

5C Time etc limits at hearings

- (1) At any time before or during a hearing, the Court may by direction:
 - (a) limit the time to be taken in examining, cross-examining or re-examining a witness,
 - (b) limit the number of witnesses (including expert witnesses) that a party may call,
 - (c) limit the time to be taken in making any oral submissions,
 - (d) limit the time to be taken by a party in presenting its case,
 - (e) limit the time to be taken by the hearing,
 - (f) amend a direction made under this rule.
- (2) Any such direction must not detract from the principle that each party is entitled to a fair hearing.
- (3) In deciding whether to make any such direction, the Court may have regard to the following matters in addition to any other matters that may be relevant:
 - (a) the subject matter, complexity or simplicity of the case,
 - (b) the number of witnesses to be called,
 - (c) the volume and character of the evidence to be led,
 - (d) the time expected to be taken for the hearing,
 - (e) the need to place a reasonable limit on the time allowed for the hearing,
 - (f) the efficient administration of the Court lists, and
 - (g) the interests of parties to other proceedings before the Court.

(4) The Court may, at any time, direct a solicitor or barrister for a party to give to the party a memorandum stating:

- (a) the estimated length of the hearing and the estimated costs and disbursements of the solicitor or barrister,
- (b) the estimated costs that would be payable by the party to another party if the party were unsuccessful at hearing.

(ii) by inserting in **Part 4** immediately following Rule 4 the following new Rule—

4A Request by unrepresented litigant for issue of subpoena

- (1) An issuing officer may not issue a subpoena, without the leave of the Court, unless the issuing party is represented by a solicitor in the proceedings concerned.
- (2) The Court or a Judge may give leave to issue a subpoena:
 - (a) generally or in relation to a particular subpoena or subpoena or subpoenas, and
 - (b) unconditionally or subject to conditions.

LAND AND ENVIRONMENT COURT ACT 1979

Land and Environment Court Rules (Amendment No. 12)
2004

PURSUANT to s 74 of the *Land and Environment Court Act 1979* we have this day made the Rules set forth in the Schedule hereto

Dated this ____ day of ____ 2004.

.....
P D McClellan Chief Judge

.....
N.R. Bignold Judge

.....
R.N. Talbot Judge

.....
Explanatory note

The principal object of this Rule Amendment is to emphasise that the overriding purpose of the Rules of Court is to facilitate the just, quick and cheap resolution of the real issues in civil proceedings and to empower the Court to give appropriate directions so that litigation is conducted so as to achieve that object.

LOCAL GOVERNMENT ACT 1993

REPORT
and
DETERMINATIONS
of
THE LOCAL GOVERNMENT REMUNERATION
TRIBUNAL
under
SECTIONS 239 AND 241
of the
LOCAL GOVERNMENT ACT 1993

28 April 2004

REPORT:**Background to the Present Review:**

PURSUANT to Section 241 of the Local Government Act 1993 (the 1993 Act) the Local Government Remuneration Tribunal hereby determines the categories for councils, county councils and mayoral officers and the maximum and minimum amount of fees to be paid during the period 1 July 2004 to 30 June 2005 to mayors and councillors of councils as well as chairpersons and members of county councils.

In the 2003 Report the Tribunal advised that for the 2004 review it planned to examine some Category 1 councils seeking re-categorisation to Category 1A. The Tribunal also indicated that for the 2004 review it intended to complete its review of Councils in Category 3 based on their activities and regional significance that distinguish them from other Category 3 councils.

Since the publication of that Report the Government commenced a structural reform programme for Local Government by announcing a series of regional reviews. These reviews have led to changes in Council boundaries and in some cases new Councils have been created from the merger of smaller council areas.

The reviews also impacted on the time table for elections scheduled for 27 March 2004. Of the 172 Councils that were in place as at 1 July 2003, 138 Councils went to the polls on March 27 2004. The remainder were deferred pending the completion of the reviews for the affected councils.

The impact of these events on the Tribunal's schedule for completing its review as foreshadowed in the 2003 Report has been substantial. Because of the on going regional reviews and their impact on Council boundaries the structure of regional councils in NSW is not clear. The Tribunal, following consultation with its Assessors, decided that the most prudent course of action would be to defer the review of the categorization of Councils until the completion of the regional reviews.

On 29 January 2004 the Tribunal wrote to all Mayors of Local Councils and Chairpersons of County Councils and to the Presidents of the Local Government and Shires Associations (LGSA) advising the reasons for deferring the review of the Categories until the completion of the Government's structural reform process. For these reasons the 2004 review would only review, and consider, submissions dealing with fees.

2004 Review

Those submissions dealing with categorization or recategorisation have not been considered as part of this review. The Tribunal has also received written submissions from 10 Councils dealing with fees generally.

All written submission sought increases in fees and/or recategorisation as a basis for increased fees. Emphasis was placed on the need to provide an attractive rate to secure better Councillors and Mayors and the pressure on elected persons to provide full-time service on council duties.

The Mayors of Baulkham Hills, Gosford and Sutherland Councils wrote to the Tribunal requesting a review of the Tribunal's decision not to continue with the review of their categorisation. The Tribunal met with the representatives from these Councils. The meeting proved very useful for the Tribunal. The results of that meeting are contained in the Conclusions to this Report.

The submission from the LGSA sought substantial increases in maximum fees. To support their submission the LGSA provided details of Councillor fees in Queensland, Victoria and Tasmania. In all cases it was put by the LGSA that population is the prime consideration in the categorisation or fee setting of Councillors.

The Tribunal met with the President of the Shires Association and the Deputy President of the Local Government Association. That meeting was not constructive and did not progress the substantive arguments contained in the submission.

Interstate Comparisons

To deal with the interstate comparisons first it should be noted that, in respect of fee setting, the NSW Act requires the Tribunal to have regard to a range of factors of which population is one and while the Tribunal has given greater weight to population, particularly to one Council the other factors cannot be ignored.

Under the Queensland Local Government Act Councillors can set their own fees. The Tribunal is unaware as to the rationale that led to this approach being enshrined in legislation. It is not a matter for the Tribunal to comment on the pros and cons of other jurisdictions. The Tribunal does note, however, that such an approach can lead to disparities in fee setting.

The following examples, taken from the list of fees provided by the LGSA, illustrate this point. In two Councils with a population of less than 1000 one pays its Mayor over \$41,000 pa, the other \$15,000. Another Council, with a population of just under 50,000 residents, pays its Mayor \$102,000 whereas a Council with more than twice that population size pays its Mayor \$94,000.

The Victorian and Tasmanian examples provided by the LGSA suggest that the NSW fees are comparable.

Fee Levels

Since the establishment of the Tribunal in 1993 there have been arguments put to the Tribunal that the fees for Councillors and Mayors are too low; these low fees will not attract the right type of candidate to Local Government; and they do not reflect the workload of Councillors and Mayors who are increasingly burdened with higher workloads and responsibilities.

The Tribunal has addressed each of these matters in the past but it seems necessary to make some additional comment on this occasion.

Under the 1919 Act, Members of Council (Aldermen and Mayors) received \$60 per meeting up to a maximum annual amount of \$3,000. Mayors also received an allowance to

meet the expenses of office. This amount was voted by individual Councils.

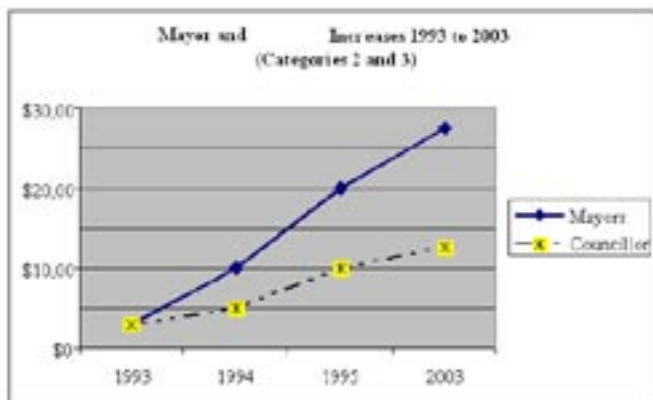
The 1993 Act repealed the 1919 Act. It established the Local Government Remuneration Tribunal and required the Tribunal to determine categories of Councils using prescribed criteria, to place each Council into a category and to set the minimum and maximum fees for each category.

In 1994 the Tribunal issued an interim determination and provided an annual fee for Councillors and Mayors of \$5,000 per annum ie an increase of 67 percent over the maximum provided by the 1919 Act.

In its first full review of Categories and fee levels conducted in 1995 the Tribunal provided further significant increases in fees for Councillors and Mayors - increasing even further the interim fee levels of 1994. For Category 2 Councils and Category 3 Councils the increases for Mayors and Councillors were 300% and 100% respectively over the 1994 determination.

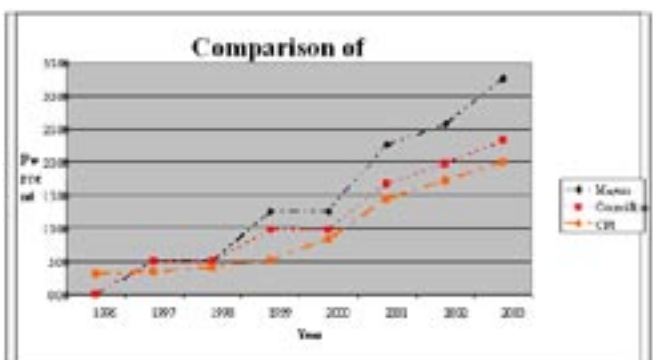
The levels of increase received by Councillors and Mayors for the decade 1993 - 2003 is shown in Table 1.

Table 1



Since 1995, Mayors and Councillors in these Categories have received increases totaling 32.60 percent and 26.25 percent respectively. This does not take into account increases arising from recategorisation. The increases determined by the Tribunal for Councillors and Mayors and the increase in the Consumer Price Index for the same period are shown in Table 2.

Table 2: (Increases refer to Mayors and Councillors for Category 2 and Category 3 Councils)



A repeated claim made to the Tribunal is that if the fees are not increased significantly then the best possible candidates will not stand for election. Statements such as these are impossible to validate. How does one know if the best possible candidate is representing the Community? What

criteria are used to assess who in the community is the best possible candidate. Where is the empirical proof that money is the only motivating factor in standing for local elections? Proponents of the of the money arguments do not provide answers to such questions other than to revert to clichés about paying peanuts and getting monkeys.

If the fees set for Councillors are so low as is claimed then one obvious manifestation of this would be a decrease in the number of candidates standing for Local Government elections.

The advice of the Acting Electoral Commissioner was recently sought on the number of candidates who stood at the recent Local Government elections and how the numbers compared with previous elections. The advice is summarised hereunder (the number of candidates has been rounded to the nearest hundred).

	No of Council Elections	No of Candidates
1995 Election	172	4,000
1999 Election	153	4,500
2003 Election	138	5,000

When the 1999 election figures are compared with the 2003 figures it will be noted that despite 20 percent fewer council elections in 2003 there were 25 percent more candidates. There was also a significantly higher number of choices for the voters to decide who would represent them on Local Government Councils.

The best way the community has of assessing the quality of the candidates is to have a large number competing for the votes of the electorate. Each candidate presents his/her position on local issues for the community's consideration prior to polling day and each candidate's vision for the community can be weighed against the competing views of other candidates.

This is the essence of our democratic system and arguments about the quality of candidates being determined solely by monetary value discredits those candidates who see Local Government first and foremost as a community service.

Arguments have also been put to the Tribunal about significant increases in workloads of Councillors and Mayors and that this should be recognized.

These arguments are also not new. It is a matter of record that changes in the role of elected persons resulting from the 1993 Act do appear to have been addressed, particularly the introduction of the executive role of the General Manager and its impact on the day-to-day management of the Council.

Conclusions

For the reasons stated above the Tribunal has concentrated on fees for this review.

The Tribunal has noted, however, that the last fundamental review of Categories occurred ten years ago and that it is now time to revisit the Categories to determine whether they should be retained or whether the changes are warranted.

Because of the regional reviews currently under way it is not appropriate to review all categories at this time. It is understood that the larger metropolitan councils (Category 1 and above) are unlikely to be affected by the reviews. The Tribunal has, therefore, decided that for the next review it will undertake a comprehensive review of Categories 1, 1A and Special Category 2.

Because of the comprehensive nature of the review and the

information to be provided by the affected Councils the Tribunal intends writing to these Councils following the completion of this review. The Tribunal will seek comment on the changes that have occurred since 1995, the impact such changes have had on the duties and responsibilities of the elected representatives and any other matters considered relevant.

From what has been stated above the Tribunal can see no compelling case for providing a substantial increase in the fees for Councillors and Mayors. No valid argument has been put forward that the fee levels were inappropriate for 2003-04.

In respect of the current review the Tribunal has had regard to the latest economic indicators. These show that the Consumer Price Index has increased by 2.4 percent and the Wage Cost Index has increased by 3.6 percent. After taking into account the views of the Assessors, the Tribunal determines that fees for Councillors, Mayors and Chairpersons be increased in all Categories by 3.0 percent effective from 1 July 2004.

Local Government Remuneration Tribunal

(The Honourable Charles L Cullen QC)

Dated: 28 April 2004.

DETERMINATION OF CATEGORIES OF COUNCILS AND COUNTY COUNCILS FOR 2004/2005

NB: Councils dissolved as a result of the regional reviews do not appear in this Determination.

Category S1 (1 Council)	Sydney
Category S2 (3 Councils)	Newcastle Parramatta Wollongong
Category S3	County Councils
Category S4	County Councils

(engaged in significant commercial activities)

Category 1A (2 Councils)

Blacktown
Penrith

Category 1. (16 Councils)

Bankstown	Liverpool
Baulkham Hills	North Sydney
Campbelltown	Randwick
Fairfield	Ryde
Gosford	Sutherland
Hornsby	Warringah
Hurstville	Willoughby
Lake Macquarie	Wyong

Category 2. (21 Councils)

Ashfield	Lane Cove
Auburn	Leichhardt
Botany	Manly
Burwood	Marrickville
Camden	Mosman
Canada Bay	Pittwater
Canterbury	Rockdale
Holroyd	Strathfield
Hunters Hill	Waverley
Kogarah	Woollahra
Kuring Gai	

NB: Councils dissolved as a result of the regional reviews do not appear in this Determination.

Category 3. (28 Councils)

Albury	Hawkesbury
Armidale Dumaresq	Kempsey
Ballina	Lismore
Bathurst	Maitland
Bega Valley	Orange
Blue Mountains	Pt Stephens
Broken Hill	Shellharbour
Byron	Shoalhaven
Cessnock	Tweed Heads
Coffs Harbour	Wagga Wagga
Dubbo	Wingecarribee
Eurobodalla	Wollondilly
Gt Lakes	
Greater Taree	
Griffith	
Hastings	

Category 4. (29 Councils)

Bellingen	Murray
Cabonne	Muswellbrook
Cobar	Nambucca
Cootamundra	Narrabri
Cowra	Narrandera
Deniliquin	Parke
Forbes	Richmond Valley
Gilgandra	Singleton
Glen Innes	Snowy River
Greater Lithgow	Walgett
Gunnedah	Wellington
Inverell	Wentworth
Kiama	Young
Leeton	
Moree Plains	
Mudgee	

NB: Councils dissolved as a result of the regional reviews do not appear in this Determination.

Category 5. (47 Councils)

Balranald	Hay
Berrigen	Holbrook
Bland	Hume
Blayney	Jerilderie
Bogan	June
Bombala	Kyogle
Boorowa	Lachlan
Bourke	Lockhart
Brewarrina	Merriwa
Carrathool	Murrumbidgee
Central Darling	Narromine
Conargo	Oberon
Coolah	Rylstone
Coolamon	Severn
Coonabarabran	Temora
Coonamble	Tenterfield
Corowa	Tumbarumba
Culcairn	Uralla
Dungog	Urana
Evans	Wakool
Gloucester	Walcha
Gundagai	Warren
Guyra	Weddin
Harden	

TOTAL GENERAL PURPOSE COUNCILS

147

Category S3 (12 Councils)

Castlereagh – Macquarie	New England
Central Murray	North West Weeds
Central Northern	Richmond River
Far North Coast	Southern Slopes
Hawkesbury River	Upper Hunter
Mid Western	Upper Macquarie

Category S4 (8 Councils)

Central Tablelands	Lower Clarence
Clarence River	MidCoast
Cudgong	Riverina Water
Goldenfields Water	Rous

TOTAL COUNTY COUNCILS **20**

**DETERMINATION OF ANNUAL
REMUNERATION FEES FOR COUNCILLORS
AND MAYORS**

PURSUANT to s.241 of the Local Government Act 1993, the annual fees to be paid in each of the categories determined under s.234 to Councillors, Mayors, members and chairpersons of County Councils during the period 1 July 2004 to 30 June 2005 are determined as follows:

	Councillor/Member Annual Fee		Mayor/Chairperson Additional Fee*	
	Minimum	Maximum	Minimum	Maximum
Category 5	5,875	6,460	6,240	10,615
Category 4	5,875	7,750	6,240	16,920
Category 3	5,875	12,925	12,490	28,215
Category 2	5,875	12,925	12,490	28,215
Category 1	8,810	16,450	18,730	43,705
Category 1A	11,745	19,385	24,970	56,505
S4	1,175	6,460	2,500	10,615
S3	1,175	3,875	2,500	7,055
S2	11,745	19,385	24,970	56,505
S1	17,625	25,850	107,840	141,900

* This fee must be paid in addition to the fee paid to the Mayor/Chairperson as a Councillor/Member (s.249(2)).

Local Government Remuneration Tribunal

(The Honourable Charles L Cullen Q.C.)

Dated: 28 April 2004.

LOCAL GOVERNMENT ACT 1993**Order**

I, the Hon TONY KELLY, MLC, Minister for Local Government, being of the opinion that it would be impracticable or inconvenient to hold a by-election to fill a casual vacancy in the office of councillor for the Area of Culcairn Shire on Saturday, 26 June 2004, hereby appoint, pursuant to section 293 of the Local Government Act 1993, Saturday, 24 July 2004, as the day for that by-election.

Dated 5 May 2004.

TONY KELLY, MLC
Minister for Local Government

NATIONAL PARKS AND WILDLIFE ACT 1974

Berkeley Nature Reserve, Five Islands Nature Reserve,
Draft Plans of Management

DRAFT plans of management for the above reserves have been prepared and will be on public exhibition until 23 August 2004. The plans are available free of charge from NPWS office at 4/55 Kembla Street, Wollongong; The National Parks Centre, 102 George Street, The Rocks; and on the NPWS web site: www.nationalparks.nsw.gov.au.

The plans may also be viewed at Wollongong City Library, 41 Burelli St, Wollongong; Thirroul Public Library, Lawrence Hargrave Drive, Thirroul; Warrawong Public Library, Shop 133 Westfield Shopping Centre, Warrawong; and the NPWS Library, Level 7, 43 Bridge Street, Hurstville.

Written submissions on both plans must be received by The Project Manager, National Parks and Wildlife Service, P.O. Box 5436, Wollongong NSW 2520 by 23 August 2004.

All submissions received by NPWS are a matter of public record and are available for public inspection upon request to NPWS. Your comments on this plan may contain information that is defined as "personal information" under the NSW Privacy and Personal Information Protection Act 1998. The submission of personal information with your comments is voluntary.

NATIONAL PARKS AND WILDLIFE ACT 1974

Budderoo National Park, Macquarie Pass National Park,
Barren Grounds Nature Reserve and Robertson Nature
Reserve

Warrumbungle National Park

Amendments to Plans of Management

AMENDMENTS to the plan of management for Budderoo National Park, Macquarie Pass National Park, Barren Grounds Nature Reserve and Robertson Nature Reserve were adopted by the Minister on 1 March 2004.

An amendment to the plan of management for Warrumbungle National Park was adopted by the Minister on 8 April 2004.

Copies of the Budderoo amendments may be obtained from the NPWS office at 55 Graham Street, Nowra, NSW 2541. Copies of the Warrumbungle amendment may be obtained from the NPWS office at 56 Cassilis Street, Coonabarabran. Copies of both amendments may also be obtained from The National Parks Centre, 102 George Street, The Rocks, NSW 2655. The amendments are also available on the NPWS web site: www.nationalparks.nsw.gov.au.

**PROTECTION OF THE ENVIRONMENT
OPERATIONS ACT 1997**

Publication of Exemption Granted under section 284

THE following exemption is published by the Environment Protection Authority (EPA) in accordance with s.284 of the Protection of the Environment Operations Act 1997. Section 284 of the Act provides that the EPA may exempt a person or class of persons from a specified provision of the Act or regulations under the Act:

- being satisfied that it is not practicable to comply with the relevant provision, and

- being satisfied that non-compliance with the provision will not have significant adverse effect on public health, property or the environment, and
- having received approval from its Board for granting the exemption.

Order Granting Exemption under section 284

BY this order the Environment Protection Authority (EPA):

- being satisfied that it is not practicable to pack more than 300 m³ of asbestos contaminated sediment into bags containing no more than 25 kg of material as required by clause 29(4)(b) of the Protection of the Environment Operations (Waste) Regulation 1996 (“the provision”), and
- being satisfied that non-compliance with the provision will not have significant adverse effect on public health, property or the environment so long as a protocol that meets the requirements of the Occupational Health and Safety Act 2000 and the Occupational Health and Safety Regulation 2001 is strictly adhered to, and
- having received approval from the Board for granting of this exemption,

grants to NSW Department of Mineral Resources (“the department”) and its contractors, subcontractors and agents, an exemption from compliance with the provision in relation to asbestos contaminated waste resulting from the rehabilitation works at the derelict Woodsreef asbestos mine at Barraba (“the premises”).

The exemption is granted under s.284 of the Protection of the Environment Operations Act 1997 subject to the following conditions:

- The exemption expires on 30 June 2005 unless otherwise varied or revoked.
- All asbestos contaminated waste arising at the premises must be managed by the department and its contractors, subcontractors and agents strictly in accordance with the “Protocol for the Removal and Handling of Asbestos Contaminated Sediment at the Former Woodsreef Asbestos Mine, Issue #1 dated 6 February 2004” which was confirmed as appearing to meet the requirements of the Occupational Health and Safety Act 2000 and the Occupational Health and Safety Regulation 2001 in a letter dated 24 November 2003 by the State Coordinator, Asbestos and Demolition, Construction Team of WorkCover NSW. (This document is available for inspection at the Department of Environment and Conservation’s head office in 59 Goulburn Street Sydney.)

Dated 26 April 2004.

LISA CORBYN,
Director General

Department of Environment and Conservation (NSW)
(incorporating the Environment Protection Authority)

PUBLIC WORKS ACT 1912
LAND ACQUISITION (JUST TERMS
COMPENSATION) ACT 1991

Compulsory Acquisition

Moruya Heads Sewerage Augmentation

THE Minister for Energy and Utilities, with the approval of Her Excellency the Governor, declares that the land and interest in land described in the Schedule hereto, is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for a public work.

On publication of this notice in the *Government Gazette* the land and interest in land is vested in the Minister for Energy and Utilities as Constructing Authority under section 4 of the Public Works Act 1912.

FRANK ERNEST SARTOR, M.P.,
Minister for Energy and Utilities

SCHEDULE

LAND

Lot 1 in Deposited Plan 1052051

INTEREST IN LAND

Easement rights as described under the heading Sewer Pipeline in Memorandum E931212 filed in the Office of Land and Property Information NSW over the site shown in:

Deposited Plan 1050693 (SB55408) as:

‘(A) PROPOSED EASEMENT FOR SEWER PIPELINE 5 WIDE’ Deposited Plan 1052051 (SB55409) as: ‘(A) PROPOSED EASEMENT FOR SEWER PIPELINE 3 AND 5 WIDE’

DoC Reference 209

PUBLIC WORKS ACT 1912
LAND ACQUISITION (JUST TERMS
COMPENSATION) ACT 1991

Compulsory Acquisition

Clarence Valley and Coffs Harbour Regional
Water Supply

THE Minister for Energy and Utilities, with the approval of Her Excellency the Governor, declares that the interest in land described in the Schedule hereto, is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for an authorised work.

On publication of this notice in the *Government Gazette* the interest in land is vested in the Minister for Energy and Utilities as Constructing Authority under section 4 of the Public Works Act 1912.

FRANK ERNEST SARTOR, M.P.,
Minister for Energy and Utilities

SCHEDULE
INTEREST IN LAND

Easement rights as described under the heading Water Pipeline in Memorandum E931212 filed in the Office of Land and Property Information NSW over the site shown in:

Deposited Plan 1052951 (SB55414) as:

‘(A) PROPOSED EASEMENT FOR WATER PIPELINE 7 WIDE AND VARIABLE WIDTH’ within Lot 55 in Deposited Plan 752810

Deposited Plan 1052956 (SB55422) as:

‘(A) PROPOSED EASEMENT FOR WATER PIPELINE 7 WIDE AND VARIABLE WIDTH’ within Lot 1453 in Deposited Plan 716571, Lot 1452 in Deposited Plan 716571 and Lot 1451 in Deposited Plan 716571

Deposited Plan 1052961 (SB55423) as:

‘(A) PROPOSED EASEMENT FOR WATER PIPELINE 7 WIDE AND VARIABLE WIDTH’ within Lot 40 Deposited Plan 752829, Lot 59 Deposited Plan 752829 and Lot 54 Deposited Plan 752829

Deposited Plan 1052963 (SB55425) as:

‘(A) PROPOSED EASEMENT FOR WATER PIPELINE 7 WIDE AND VARIABLE WIDTH’ within Lot 2 in Deposited Plan 875442

DoC Reference 224

RETENTION

HER Excellency the Governor, by deputation from Her Majesty the Queen, has been please to approve of the retention of the title “Honourable” by Mr Roderick Pitt Meagher QC following his retirement from judicial office on 16 March 2004.

SUBORDINATE LEGISLATION ACT 1989

Business Names Regulation 2004

NOTICE is given in accordance with section 5 (2) (a) of the *Subordinate Legislation Act 1989* of the intention to make a principal statutory regulation under the *Business Names Act 2002*.

The Regulation aims to enable the *Business Names Act 2002* to operate effectively by prescribing matters of a procedural and administrative nature. In particular, the Regulation prescribes:

- the form of, and the power to correct entries in the Register of Business Names;
- the offences under the Act that may be dealt with by penalty notice;
- the fees payable under the Act;
- the issue of certificates of authority to authorised officers under the Act; and
- other matters of a minor, consequential or ancillary nature.

A copy of the Regulation and Regulatory Impact Statement can be obtained by contacting Evelyn Goltz on telephone (02) 9338 8920 or email evelyn.goltz@oft.commerce.nsw.gov.au or from the Office of Fair Trading’s website at www.fairtrading.nsw.gov.au

Comments and submissions on the Regulation and Regulatory Impact Statement should be directed to any of the addresses given in the Regulatory Impact Statement, and should be received by 1 June 2004.

**THREATENED SPECIES CONSERVATION
ACT 1995**

Department of Environment and Conservation
Exhibition of the *Caladenia arenaria* approved recovery plan:

THE Department of Environment and Conservation has prepared the *Caladenia arenaria* Recovery Plan in accordance with the provisions of the *Threatened Species Conservation Act 1995*: The plan will be available for public inspection from May 3 2004, during ordinary office hours, at the following locations:

- NPWS/DEC INFORMATION CENTRE, 102 George St, Sydney
- DEC LIBRARY, Level 7, 43 Bridge St, Hurstville
- DEC WESTERN DIRECTORATE, 52 Wingewarra St, Dubbo
- ROYAL BOTANIC GARDENS, Mrs Macquaries Rd, Sydney
- NATURE CONSERVATION COUNCIL, 39 George St, Sydney

The *Caladenia arenaria* Recovery Plan will also be available for public inspection at NPWS Riverina Region, 200 Yambil St, Griffith, and DIPNR Murrumbidgee, 43-45 Johnston St, Wagga Wagga.

All Recovery Plans are also displayed on the NPWS Web Site www.npws.nsw.gov.au Copies of the Plan are available for purchase at a cost of \$8.25 each.

For further information or to order a copy of a Recovery Plan, contact NPWS Threatened Species Unit on (02) 6883 5349.



INDEPENDENT
TRANSPORT
SAFETY AND
RELIABILITY
REGULATOR

Rail Safety (Health Assessment) Guideline 2004— No 1

Under the Rail Safety Act 2002

I, CAROLYN WALSH, Chief Executive Officer of the Independent Transport Safety and Reliability Regulator, pursuant to clause 50 of the Rail Safety (General) Regulation 2003 issue this guideline containing the standards specified in Schedule 1 for the health and fitness of rail safety workers.

Dated, this 5th day of May 2004.

A handwritten signature in black ink, appearing to read 'Carolyn Walsh'.

Carolyn Walsh

Chief Executive Officer
Independent Transport Safety and Reliability Regulator

Explanatory Note

The object of this Guideline is to specify standards relating to the health and fitness of railway employees. The standards contained in the Guideline are the “National Standard for Health Assessment of Rail Safety Workers” being standards developed by the National Transport Commission of Australia (NTC). NSW is adopting the NTC Standards as standards for the purposes of Clause 50 of the Rail Safety (General) Regulation 2003.

Rail Safety (Health Assessment) Guideline 2004—No 1

Part 1—Preliminary

1. Name of Guideline

This is the *Rail Safety (Health Assessment) Guideline 2004—No 1*.

2. Commencement

- (a) Clause 2.5 of Schedule 1 of the Guideline (and other provisions of Schedule 1 necessary for the implementation of clause 2.5) commences on 7 May 2004;
- (b) The remainder of the Guideline commences on 30 June 2004.

3. Application

3.1 For the purposes of the application of the Guideline, where the employment or contract of a rail safety worker is transferred to another rail organisation through any of the following:

- (a) a restructure of a rail organisation;
- (b) the sale of the whole or part of a rail organisation;
- (c) an order made by the Minister under the *Transport Administration Act 1988 (NSW)*; or
- (d) any other circumstances that may be determined from time to time by the NSW Rail Safety Regulator;

a pre-placement health assessment is not required before the rail safety worker's employment or contract is transferred to the rail organisation.

3.2 The transfer of a contract or employment of a rail safety worker under this clause does not affect or extend the time specified either in Part 2 of the Schedule 1 (Transition Arrangements) or elsewhere in the Schedule for the carrying out of Periodic Health Assessments by the rail organisation with respect to the rail safety worker whose employment or contract has been transferred.

3.3 Nothing in this clause removes any requirement in the Guideline for a health assessment to be carried out for a rail safety worker if that rail safety worker upon transfer to a rail organisation under this clause, undertakes duties which are materially different from the duties carried out immediately before the transfer of employment or contract.

Note: Where rail safety workers are transferred to another rail organisation in the circumstances outlined above, the Guideline will not require the rail organisation to conduct a pre-placement health assessment as a result of, for example, changes to the structure or ownership of the organisation. If the rail safety worker's duties change following any such transfer, this will need to be assessed by the rail organisation to determine whether the standards require a health assessment before assigning the new tasks to the rail safety worker. The intervals for the conduct of ongoing health assessments of rail safety workers will not be affected by the transfer of employment or contract under this clause.

Schedule 1

Standard for Health Assessment of Rail Safety Worker

Volume 1: Management Systems

Volume 2: Assessment Procedures and Medical Criteria

Volume 3: Guideline for Health Risk Management

NATIONAL STANDARD FOR HEALTH ASSESSMENT OF RAIL SAFETY WORKERS

**VOLUME 1:
MANAGEMENT SYSTEMS**

May 2004

**Prepared by
National Transport Commission**

National Transport Commission

**National Standard for Health Assessment of Rail Safety Workers
Volume 1: Management Systems**

Report prepared by:
National Transport Commission

FOREWORD

This draft National Standard for Health Assessment for Rail Safety Workers has been developed under the auspices of the National Transport Commission (NTC) as part of the Work Program approved by the Australian Transport Council. Recognising the extent of work already undertaken within Victoria on health standards for rail workers, the Victorian Department of Infrastructure has acted as the lead agency in the development of the national standard.

A nationally agreed and consistently applied Health Assessment Standard will ensure uniformly high safety standards apply across the whole industry. This will contribute to seamless rail operations allowing rail organisations to operate more efficiently within and across State and Territory boundaries. The National Standard will also benefit rail safety workers by providing for equity and portability of medical certification.

The draft Standard has been developed from the Victorian Code of Practice for Health Assessment of Rail Safety Workers. It adopts a risk management approach and reflects contemporary medical knowledge as well as changes in societal values. It is the result of extensive research and input from a very wide range of industry stakeholders.

Recent rail accident investigations in New South Wales and Victoria have highlighted various deficiencies in the quality and/or the implementation of current medical standards. In addition, there is a need to ensure that medical standards used by industry keep pace with advances in medical knowledge or current understanding of the impact of certain health conditions on safe working performance.

These considerations are reflected in the draft National Standard. Contemporary anti-discrimination and privacy principles now legislated in all Australian States, and Territories have also been taken into account.

Except where it reflects a legislative provision, the draft National Standard is a non-prescriptive, performance-based standard. It consists of two volumes:

Volume 1 - Management Systems

Volume 1 is intended for use by rail organisations. It outlines the responsibilities of rail organisations, workers and health professionals and describes the management systems for health risk management including scheduling, communication, records management and the appointment of authorised health professionals. It contains provisions for a risk management approach to monitoring rail safety worker health and fitness, including a framework for analysing and categorising risks associated with rail safety tasks and assigning levels of health assessments accordingly.

Volume 2 – Assessment Procedures & Medical Criteria

Volume 2 is for use by authorised health professionals. It outlines the procedures for conducting health assessments and provides the medical criteria for judging fitness for rail safety duty.

The Standard is supported by a Guideline for Health Risk Management. This Guideline is not formally part of the Standard, but provides practical guidance and examples to assist rail organisations to perform health risk assessments for rail safety workers.

Once finalised and approved by the ATC, it is expected that each State and Territory will adopt the National Standard in a manner consistent with their specific legislative provisions and the principle of co-regulation which underpins the rail safety regulatory regimes in each jurisdiction. Options for the adoption of the Standard are canvassed in the Preliminary Regulatory Impact Statement. These options will be considered more thoroughly within the context of a separate project being run by the NTC dealing with the Co-regulatory Framework in the Australian rail industry.

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Glossary of Terms

1. **Accredited Rail Organisation** means a rail organisation accredited as defined in the jurisdiction's relevant rail safety legislation as a Manager of Infrastructure and/or Provider of Rolling Stock and/or Operator of Rolling Stock.
2. **Authorised Health Professional** means a health professional typically with a qualification in medicine or in nursing with a post graduate qualification in occupational health nursing, who has been selected by accredited rail organisations, on the basis of their compliance with the specified selection criteria, to perform rail safety worker health assessments.
3. **Around the Track Personnel (ATTP)** means persons required to work on a railway where any aspect of the task they are undertaking is "on or near the track" as defined in 14. ATTP excludes any rail safety worker who is classified as a Safety Critical Worker.
4. **Civil Infrastructure** means track formation and drainage (but excluding track), fixed structures beside, over or under the track, including supports for overhead electric traction equipment, supports for signalling and telecommunications equipment but excluding those equipments.
5. **Competence** means the possession of skills and knowledge and the application of them to the standards required in employment.
6. **Contractor** means a person who is engaged by or on behalf of any body that has been accredited under a jurisdiction's rail safety legislation to provide goods or services to such a body.
7. **Controlled Environment** means a rail workplace where a risk assessment has been performed to identify hazards and implement controls to ensure that any person working in or transiting the area is not placed at risk from moving trains.
8. **Electric Traction Infrastructure** means equipment and systems associated with the supply and reticulation of electricity for traction purposes, but excluding elements of civil infrastructure supporting or otherwise associated with the equipment or systems.
9. **Employer** means an accredited rail organisation that engages a rail safety worker, either as a paid worker or volunteer.
10. **Ensure** means to take all reasonable action insofar as controllable factors will allow.
11. **Interstate System** means any railway system, or part thereof, designated by its owner as a route to be used for the movement of interstate traffic.
12. **Mainline** means the line normally used for running trains through and between locations.
13. **May** indicates the existence of an option.
14. **On or Near the Track** means three (3) metres from the edge of the closest rail when measured horizontally and at any level above or below the rail when measured vertically, unless in a position of safety.
15. **Operator** means the person or body responsible by reason of ownership, control or management, for the provision, maintenance or operation of trains, or a combination of these; or a person or body acting on its behalf.
16. **Organisation** means an owner or an operator or a person or a body that is both owner and operator.
17. **Owner** means the person or body responsible by reason of ownership, control or management, for the construction and maintenance of track, civil and electric traction

- infrastructure or the construction, operation or maintenance of train control and communication systems, or a combination of these, or a person or body acting on its behalf.
- 18. Rail Network** means a system of railways whether interconnected or not.
- 19. Rail Safety Worker** is a worker undertaking rail safety work as defined in a jurisdiction's rail safety legislation and for this Standard includes an employee, contractor, subcontractor or volunteer performing work on a railway or tramway system:
- as a driver, second person, trainee driver, guard, conductor, supervisor, observer or authorised officer;
 - as a signal operator, shunter or person who performs other work relating to the movement of trains or trams;
 - in repairs, maintenance, or upgrade of railway infrastructure, including for rolling stock or associated works or equipment;
 - in construction or as a look out for construction or maintenance;
 - any other work that may be included by regulation.
- 20. Railway** means a guided system designed for the movement of rolling stock which has the capability of transporting passengers, freight or both on a track together with its infrastructure and associated sidings. This includes a heavy railway, a light railway, an inclined railway or a tramway, having a nominal gauge in each case not less than 600mm, but excludes crane type runways and slipways.
- 21. Risk** means the combination of the frequency or probability of occurrence and the consequences of a specified hazardous event.
- 22. Risk Analysis** means a systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
- 23. Risk Assessment** means the overall process of risk analysis and risk evaluation.
- 24. Risk Control** means the process of decision making which involves the implementation of physical changes, standards, policies and/or procedures for eliminating, reducing and/or managing risk.
- 25. Risk Management** means the systematic application of management policies, procedures and practices to the tasks of analysing, evaluating and controlling risk.
- 26. Rolling Stock** means any vehicle that operates on or uses a railway track, excluding a vehicle designed for both on- and off-track use when not operating on the track.
- 27. Running Line** means any line used for the through operation of trains inclusive of mainlines, branch lines, crossing loops and shunting yards.
- 28. Safety Critical Worker** means a worker whose action or inaction, due to ill health, may lead directly to a serious incident affecting the public or the rail network.
- 29. Serious Incident** for the purposes of this Standard means an accident or incident that affects the public or the network resulting in:
- the death of a person;
 - incapacitating injury to a person;
 - a collision or a derailment involving rolling stock that results in significant damage;
 - any other occurrence which results in significant property damage.
- 30. Shall** is to be understood as mandatory.
- 31. Should** is to be understood as non-mandatory, that is, advisory or recommended.

- 32. Signalling and Telecommunications Infrastructure** means signalling equipment and telecommunication equipment provided and used as part of the safe working and operating systems of the railway but excluding supports for such equipment.
- 33. Track** means the combination of rails, rail connectors, sleepers, ballast, points and crossing and substitute devices where used.
- 34. Train** means one unit of rolling stock or two or more units coupled, at least one of which is a locomotive or other self-propelled unit.
- 35. Tram** means a vehicle that runs on rails on a highway, road or easement specifically designated for use by a tram or light rail vehicle and includes a light rail vehicle.
- 36. Worker** means a rail safety worker as defined in Definition 19.

PART 1: INTRODUCTION

1. Purpose, Scope and Structure

1.1 Structure of the Standard

The *National Standard for Health Assessment of Rail Safety Workers* consists of two volumes:

- Volume 1: Management Systems
- Volume 2: Assessment Procedures and Medical Criteria

Volume 1: Management Systems

Volume 1 is intended for use by rail organisations. It outlines the responsibilities of rail organisations, workers and health professionals and describes the management systems for health risk management including scheduling, communication, records management and the appointment of authorised health professionals.

Volume 1 contains provisions for a risk management approach to monitoring rail safety worker health and fitness. This includes a framework for analysing and categorising the risks associated with rail safety tasks and assigning workers to a level of health assessment commensurate with the risks.

Volume 1 also includes model forms that organisations may use to develop their administrative systems.

Volume 2: Assessment Procedures and Medical Criteria

Volume 2 is for use by authorised health professionals. It outlines the procedures for conducting health assessments and provides the medical criteria for judging fitness for rail safety duty.

Guideline for Health Risk Management

The Standard is supported by a *Guideline for Health Risk Management*. This Guideline is not formally part of the Standard, but provides practical guidance with examples for rail organisations to

perform health risk assessments for rail safety workers.

1.2 Purpose of the Standard

The *National Standard for Health Assessment of Rail Safety Workers* provides practical guidance for accredited rail organisations to meet their obligations for monitoring the health and fitness of rail safety workers.

This responsibility is an essential part of the rail safety management systems aimed at minimising risks to protect the safety of:

- the public;
- rail safety workers and their fellow workers; and
- the environment.

Australian Standard AS 4292: Railway Safety Management is recognised as the framework for accredited rail organisations to develop an appropriate safety management system (SMS). *Australian Standard AS4292* specifies that a SMS should include procedures for ensuring health and fitness of rail safety workers.

The procedures should ensure workers are fit for the specific tasks to which they are assigned, that relevant records are maintained and confidentiality of records is assured.

1.3 Performance Standard

The Standard outlines the preferred method for health assessments of rail safety workers based on the risk analysis of rail safety tasks and best available medical evidence.

Except where it reflects a legislative provision, the Standard is non-prescriptive. The focus is on risk management and achieving desirable outcomes, rather than on prescribed processes. The provisions are described broadly so rail organisations can implement systems and processes appropriate to their needs.

Should an agreement be reached at an enterprise level, the Standard does not preclude more comprehensive or frequent health assessments. However, those who do implement different methods should consider issues such as anti-discrimination laws and industry interfaces.

The provisions in the Standard are based on risk and safety management principles, especially the need to establish procedures for:

- identification, analysis, assessment, control and monitoring of risk;
- management of emergencies and incidents; and
- proper definition and management of interfaces between organisations and organisational elements.

The Standard recognises health assessments as one aspect of an integrated management system aimed at achieving a high safety level throughout the rail network as shown in Diagram 1.

The Standard also provides criteria for regulators to audit accredited rail organisations to maintain safety standards within the rail system.

1.4 Application of the Standard

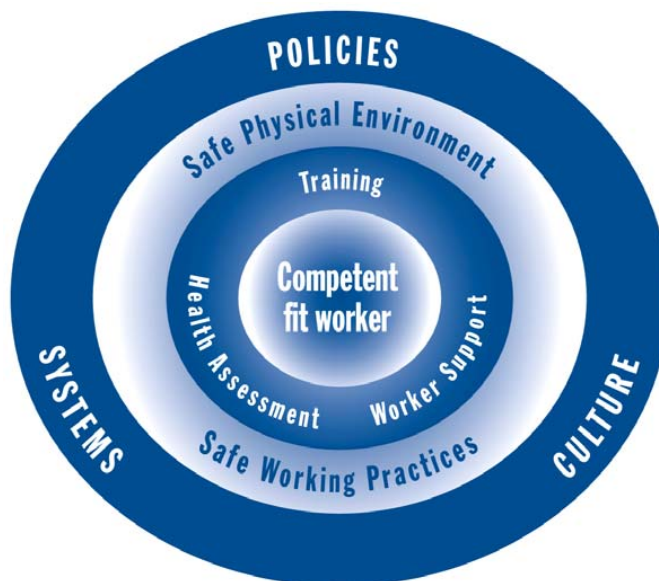
The Standard applies to all rail organisations accredited under the relevant State or Territory legislation and provides practical guidance to ensure they comply with regulatory and accreditation requirements.

The Standard applies to all rail safety workers as defined in the jurisdiction's rail safety legislation.

The Standard relates to health assessments and procedures for monitoring the health and fitness of workers to perform rail safety duties.

While the Standard does address individual worker safety on and about the track, it does not cover other occupational health and safety matters such as occupational exposure. The Standard also does not apply to fatigue management or the management of drug and alcohol screening outside the preplacement assessments. Such matters should be managed in conjunction with this Standard and are not superseded by it.

Diagram 1. The Context of Health Assessments for Rail Safety Workers



2. Transition Arrangements

2.1 Guiding Principles

Transition arrangements are set out in this Standard to help support orderly and consistent adoption of the new health assessment provisions across the rail industry and to balance public safety requirements with realistic implementation expectations.

The transition arrangements outlined below are based on a risk management approach, taking into consideration the risk associated with each category of rail safety worker.

All health assessments conducted after the implementation date of the Standard should be conducted in line with the health assessment procedures and medical criteria contained in the Standard (*Volume 2: Assessment Procedures and Medical Criteria*).

After the transition periods described below, all Periodic Health Assessments should be scheduled in line with frequency provisions of this Standard.

Notwithstanding the provisions of these transitional arrangements, no rail safety worker should be scheduled for a Periodic Health Assessment beyond the maximum period nominated in the new health assessment standard.

2.2 Transition for Periodic Health Assessments

High Level Safety Critical Workers - Category 1

Periodic Health Assessments for Category 1 High Level Safety Critical Workers should be performed in line with the new Standard within 18 months of implementation of the new standard.

If the previously scheduled Periodic Health Assessment falls earlier than this transition timeframe, the earlier timeframe should apply.

Safety Critical Workers - Category 2

Periodic Health Assessments for Category 2 Safety Critical Workers should be performed in line with the new Standard

within 24 months of implementation of the new Standard.

If the previously scheduled Periodic Health Assessment falls earlier than this transition timeframe, the earlier timeframe should apply.

Around the Track Personnel (Uncontrolled Environment) Category 3

Category 3 Around the Track Personnel who have had their prescribed Periodic Health Assessments up to the date of implementation of the Standard need not present for a repeat assessment until the date of their next assessment scheduled according to existing frequency provisions. The new health assessment standard should be applied at this next Periodic Health Assessment.

2.3 Transition for Fit for Duty Subject to Review Assessments and other Triggered Assessments

Rail safety workers attending Fit for Duty Subject to Review assessments should attend the next scheduled assessment following implementation. At that review assessment the authorised health professional should re-evaluate the review requirements in light of the new Standard.

All other triggered assessments should be performed in line with the Standard from the date of implementation.

2.4 Transition for Pre-placement or Change of Grade (Risk Category) Assessments

Pre-placement health assessments and assessments associated with a change of position that involves tasks of a higher risk category, should be performed in line with the Standard from the date of implementation.

2.5 Alternative Arrangements

Within 2 months of commencement of this Standard, rail organisations may propose alternative transitional arrangements for implementation of Periodic Health Assessments for Categories 1 and 2 rail safety workers and submit the proposal to the Rail Safety Regulator for agreement.

The proposal should provide a description of the difficulties the rail organisation faces in implementing the transition arrangements set out in section 2.2 above and a sound rationale for the proposed divergence.

The proposal should be based on a risk analysis and include:

- an analysis of the rail organisation's current health assessment standard compared to the new standard, including a comparison of systems, frequencies of health assessments, assessment procedures and medical criteria;
- an analysis of the age profile of the workforce, in particular identifying the higher risk age groups over 45 years of age; and
- demonstration that no increase in risk to the public or rail safety workers will result.

Based on the risk analysis, the rail organisation should set out how it intends to prioritise health assessments to minimise risks and to achieve earliest implementation.

3. Legislative and Program Interfaces

Some health and human resources programs may interface with rail safety worker health assessments and each other. Such programs or initiatives might have a legal basis or be implemented as part of the organisation's human resources policy.

Interfaces should be identified and managed to increase the effectiveness of the health assessment program and reduce duplication.

When implementing worker health assessments, rail organisations should consider the interfacing legislation and programs such as those described below and illustrated in Diagrams 2 and 3.

3.1 Occupational Health and Safety

Occupational health and safety legislation imposes a general duty of care on the employer and rail safety worker regarding risk management and integrates closely with the rail safety legislation and this Standard.

The scope of this Standard is confined to the assessment of health and fitness to perform rail safety work. While the Standard does address individual worker safety on and about the track, it does not cover other occupational health and safety matters such as occupational exposure.

Additional examinations required under occupational health and safety legislation (for example, occupational exposure to noise, lead, asbestos or poor ergonomic design) are not covered by this Standard but should be addressed by the rail organisation as required.

Case Study

Noise Exposure

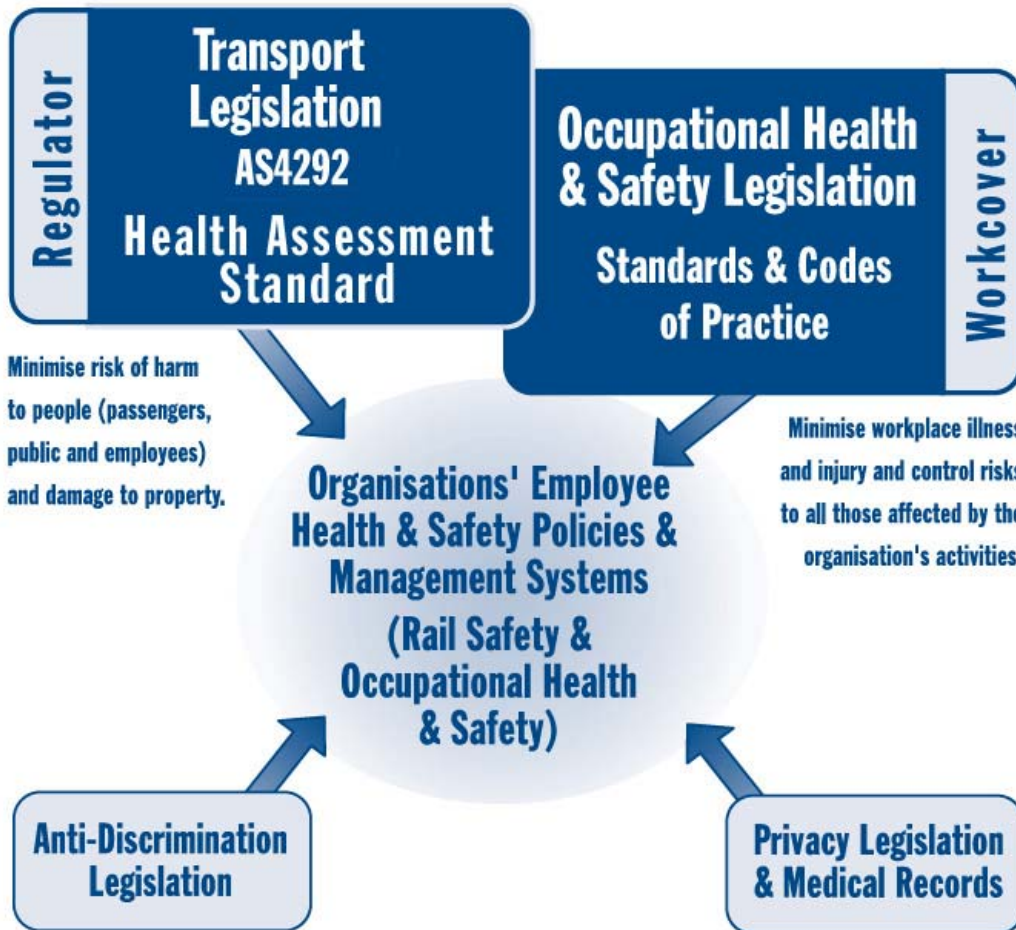
Rail safety workers are assessed for hearing ability to ensure they can work safely. In addition, state or territory regulations for hearing protection usually require audiometric testing at defined times for workers exposed to certain noise levels. Thus, a 30-year-old worker may only require 5 yearly rail safety worker health assessments yet must have 2 yearly audiometric testing if noise exposure warrants it. Organisations must identify such overlaps and manage the process to ensure compliance.

3.2 Anti-discrimination Legislation

Anti-discrimination legislative requirements must be considered by rail organisations when implementing health assessment systems. These include:

- Health assessments must focus on inherent job requirements, not peripheral requirements. The risk assessment must guide the health assessment process.

Diagram 2. Legislative Context



- For certain conditions it may be necessary to demonstrate that the condition prevents the worker from performing the required rail safety tasks, for example through practical tests for hearing, colour vision or musculoskeletal capacity.
- Any required tests should be valid and the criteria must have a clear rationale. That is, the test must be a good predictor of serious illness regarding rail safety.
- If a standard must be met at entry, it should be maintained during employment and examined for periodically.

- If a criterion is not met, an employer should consider reasonable adjustments to the workplace to accommodate the disability.

While public safety considerations take precedence over anti-discrimination, this does not exempt a rail organisation from giving close consideration of discrimination issues.

3.3 Privacy Legislation

In administering the rail safety worker health assessments, rail organisations must ensure compliance with the Privacy Principles contained in Privacy legislation and that health records are managed and stored in line with the relevant Health

Records legislation. Provisions for these specific requirements are described in Part 2 of this Volume.

3.4 Interstate Rail Safety Legislation

Where rail safety workers work across State or Territory boundaries the legislation of the relevant States and Territories should be considered and the highest standard should be applied.

3.5 Drug and Alcohol Controls

The health assessments for rail safety workers should interface with drug and alcohol controls as determined by State or Territory legislation and by the rail organisation's policies and procedures.

Authorised health professionals should be made aware of the jurisdiction's alcohol and drug controls and of any policy for zero tolerance of alcohol.

3.6 Injury Management

Injury management, return to work and rehabilitation are also likely to interface with rail safety worker health assessments. For example, a worker on an injury management program should undergo a health assessment to determine fitness for rail safety duties or fitness for proposed alternative duties. The assessment will be helpful to the rehabilitation provider.

Repeat injuries may also trigger a health assessment. Rail organisations should ensure appropriate injury management and that workers compensation personnel monitor repeat injuries and initiate health assessments as required.

Case Study

Post Traumatic Stress and Return to Work

A workplace injury is covered by accident compensation legislation. This means drivers involved in traumatic events such as suicides receive counselling and monitoring per organisational procedures. Depending on the time a driver is away from the workplace, they may undergo a medical assessment to ensure they

are fit to return to rail safety work. Organisations must have defined programs for the return to work of rail safety workers.

3.7 Critical Incident Management

Most accredited rail organisations have counselling and support programs available for workers involved in fatalities, rail incidents and near misses. Periodic rail safety health assessments provide a further opportunity to review worker responses to critical incidents and to assess general psychological wellbeing. Interfacing these programs, particularly by informing the authorised health professional of traumatic incident history, supports the effectiveness of the health assessment process and critical incident management overall.

3.8 Psychometric Testing

Some rail organisations have introduced psychometric testing for recruitment and promotion/change of grade purposes. The rail safety health assessments described in this Standard do not include psychometric testing but may interface with these recruitment tools where they exist. Psychometric testing may also be useful for assessing head injuries as well as psychiatric and neurological conditions.

3.9 Employee Assistance Programs

Personal and work-related issues can affect work performance. Employee Assistance Programs (EAP) help workers and their families resolve these issues via independent and confidential professional counselling. There is potential for referral to EAP by the authorised health professional.

3.10 Fatigue Management

A worker's vigilance is reduced by fatigue. Accredited rail organisations should have in place effective fatigue management programs for shift workers. Periodic health assessments may detect excessive daytime sleepiness and may support sleep hygiene education.

Diagram 3. Interfacing Health and Human Resources Programs

3.11 Health Promotion and Health Surveillance

Rail safety worker health and fitness may be supported by health promotion programs. These might typically include heart health, nutrition, physical fitness, smoking cessation and skin cancer prevention programs.

Authorised health professionals may recommend an individual undergo more frequent review assessments for health surveillance purposes if required.

4. Responsibilities and Relationships

4.1 Accredited Rail Organisations

The accredited rail organisation has a legal responsibility under the relevant rail safety legislation to ensure systems are in place to protect the safety of the public and the network. This includes a responsibility to ensure the health and fitness of workers is monitored and does not jeopardise rail safety.

As an employer, the accredited rail organisation also has a duty of care under occupational health and safety legislation to the safety of its workers.

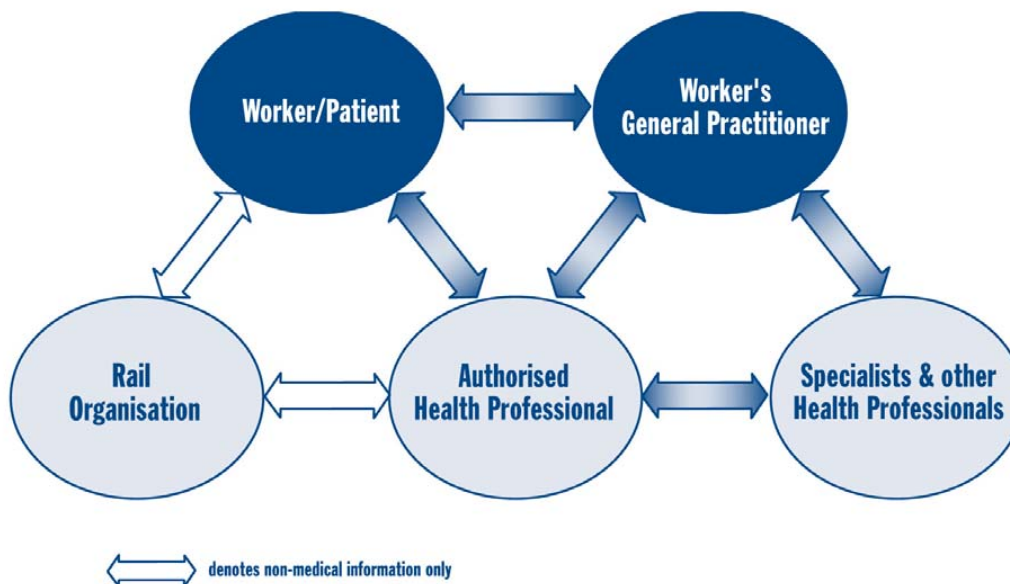
The final decision regarding fitness for duty or any restrictions rests with the employer and involves consideration of the advice of health professionals as well as anti-discrimination and retraining issues.

Where possible, to meet anti-discrimination requirements, the employer should accommodate the limitations on the worker's capabilities due to health issues through strategies such as job modifications or alternative or supervised duties as appropriate.

Accredited rail organisations also have a responsibility to ensure privacy principles are maintained with respect to worker's personal and health information.

If employing contractors, the employer is required to inform them of their obligations to ensure appropriate health assessment systems are in place for their workers.

Diagram 4. Relationships and Information Flow for Rail Safety Worker Health Assessments



4.2 Contractors

An accredited rail organisation is responsible for managing its contractors and ensuring that contractors meet their responsibilities for rail safety worker health assessments.

4.3 Rail Safety Workers

Rail safety workers have a duty of care to themselves and others. Once employed, they should know their job, its implications for the safety of the public and the network and the importance of their health and fitness to rail safety.

They have a responsibility to notify the employer of any temporary or ongoing health condition or change in health status that is likely to affect their ability to perform their work safely. They must also comply with any review requirements of a health assessment.

Rail safety workers are also responsible for advising their employer of impairment due to medication.

Rail safety workers may request referral to an authorised health professional if they are concerned about their ability to perform their work safely due to health reasons.

If the rail safety worker works for more than one organisation, they have a responsibility to ensure each employer is advised about conditions that may affect their safe working ability.

4.4 Health Professionals

Health professionals appointed and authorised by the accredited rail organisation to conduct health assessments for rail safety work should have demonstrated that they have relevant competence and understanding of the rail environment and associated risks. The authorised health professionals should conduct health assessments in line with the procedures contained in *Volume 2: Assessment Procedures and Medical Criteria*.

The relationship between the health professional and the worker/patient is

governed by the ethics of the relevant health profession and by privacy laws. The relationship differs from the usual doctor-patient relationship because of the involvement of a third party, the rail organisation or employer. The health professional should not provide personal or medical information to the employer, only information regarding work capacity.

The authorised health professional should liaise with the worker's general practitioner and treating specialists where appropriate to clarify information relating to the worker's current health status. Such communication should occur with the consent of the worker.

The ongoing treatment and management of medical conditions should be the

responsibility of the worker's general practitioner. Authorised health professionals should communicate and consult with the general practitioner and other relevant providers to ensure the effective management of the worker's health.

The authorised health professional may also liaise with the rail organisation's Chief Medical Officer (CMO), if the organisation has one. The CMO may access workers' medical records but is bound by privacy considerations.

Diagram 4 shows the relationships and flow of information that take place in conducting rail safety worker health assessments.

PART 2: MANAGEMENT SYSTEMS AND PROCEDURES

5. Risk Management Approach

An accredited rail organisation must establish systems and procedures to ensure rail safety workers receive the appropriate level of health assessments as outlined in this part of the Standard.

The systems and procedures should be based on a risk management approach so that the level and frequency of rail safety worker health assessments correspond with the risks associated with the tasks they perform.

5.1 Health Risk Assessments

Each rail organisation must perform its own risk assessment of the rail safety work undertaken in its own operating environment.

The *Guideline for Health Risk Management* provides a method for performing risk assessments of rail safety tasks and assigning risk categories. It includes:

- a step-by-step guide to the risk assessment of rail safety tasks and the health attributes needed for the tasks;
- guidance for identifying health assessment requirements for specific tasks, such as colour vision;
- worked examples of risk assessments for a sample of rail safety tasks;
- a Risk Assessment Template for use in documenting the risk assessment process.

6. Risk Categories for Rail Safety Work

The health risk management approach is based on categories of risk which have been defined after considering the key question:

For any aspect of the tasks identified, could ill health lead directly to a serious incident affecting the public or the rail network?

The key criterion applied therefore in the risk analysis is the extent to which the worker's physical and psychological health may impact on the safety of the rail network and the public. The nature of the task and the engineering controls available are both considered in the risk assessment.

This has led to the establishment of two main risk categories:

- Safety Critical Work
- Non-Safety Critical Work

These two main categories are further sub-divided, resulting in four risk categories overall. The risk categories help to define broad physical and psychological health attributes needed for particular rail safety tasks. The system also allows for the identification of task-specific health attributes such as levels of colour vision.

6.1 Safety Critical Workers

Safety Critical Workers are defined as those workers whose action or inaction, due to ill-health, may lead directly to a serious incident affecting the public or the rail network.

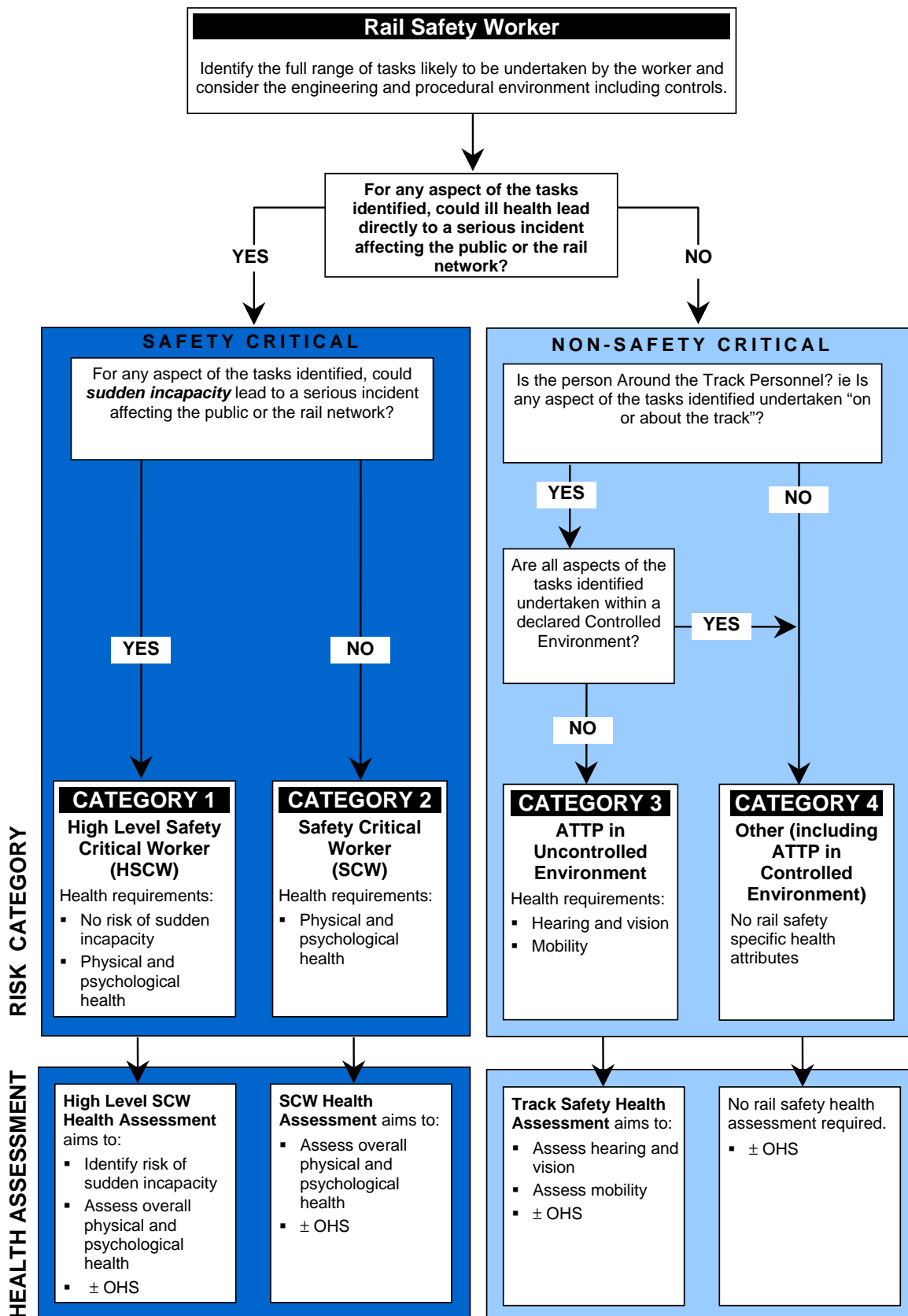
The health and fitness of these workers, especially their vigilance and attentiveness to their job, is crucial and they are therefore the main focus of this Standard.

Safety Critical Workers' tasks are those that might affect the safety of the public and the network and are distinguished from tasks that affect only individual worker safety. They are also distinguished from tasks where skill has the main bearing on rail safety and ill health is a lesser consideration.

There are two Safety Critical Worker risk categories:

- High Level Safety Critical Worker (Category 1)
- Safety Critical Worker (Category 2).

Diagram 5. Definition of Health Risk Categories for Rail Safety Workers



High Level Safety Critical Worker (Category 1)

High Level Safety Critical tasks are those where a serious incident could result from **sudden worker incapacity** such as heart attack or blackouts. Single operator train driving on the commercial network is an example of a High Level Safety Critical task.

Safety Critical Worker (Category 2)

Safety Critical tasks which are not High Level include those where fail-safe mechanisms ensure sudden incapacity does not affect safety of the rail network. For example, in many cases the signalling task is Safety Critical but not High Level Safety Critical where fail-safe systems ensure the safety of the network in case of worker incapacity.

6.2 Non-Safety Critical Workers

Non-Safety Critical Workers are those whose health and fitness will not impact directly on the safety of the public and the rail network. These workers are categorised based on whether their health and fitness will impact on their ability to protect their own safety and that of fellow workers.

Around the Track Personnel (ATTP) is the term used to describe workers who perform Non-Safety Critical tasks on or near the track as defined.

Their risk category depends on their likely exposure to moving rolling stock. There are two Non-Safety Critical Worker risk categories:

- ATTP operating in an Uncontrolled Environment (Category 3);
- ATTP operating in a Controlled Environment (Category 4).

ATTP Operating in an Uncontrolled Environment (Category 3)

Where ATTP cannot be protected by a Controlled Environment they must have the ability to sense an oncoming train and move quickly out of the way. They are therefore required to have health assessments commensurate with these risks, including hearing, vision and mobility.

ATTP Operating in a Controlled Environment (Category 4)

The risk to ATTP may be reduced by creating a Controlled Environment. Workers in a Controlled Environment do not need to rely on their vision, hearing and mobility to protect them from rolling stock and do not require a health assessment.

Where workers may move between Controlled and Uncontrolled Environments the higher level of risk assessment should be applied.

Category 4 also includes those rail safety workers who do not work on or about the track as illustrated in Diagram 5.

Irregular visitors to the track, such as office workers, are not generally classified as ATTP. When they do visit the track their safety should be ensured by other means, for example by escort.

7. Matching the Level of Health Assessment to Risk Category

A rail safety worker should be referred to the level of health assessment commensurate with their rail safety work risk category.

The assessment procedures and medical criteria applicable to each of the Categories 1, 2 and 3 are provided to health professionals in *Volume 2: Assessment Procedures and Medical Criteria*.

7.1 Safety Critical Worker Health Assessments (Categories 1 and 2)

Safety Critical Workers should undergo a comprehensive physical and psychological assessment at pre-placement, when changing to a position involving tasks of a higher Risk Category, and periodically during employment to detect conditions that may affect their ability to work safely. The health assessment for Safety Critical Workers includes screening for heart disease, diabetes, epilepsy, sleep disorders,

alcohol and drug dependence, psychiatric disorders and eye and ear problems.

The assessment comprises a Safety Critical Worker Questionnaire and clinical examination. It may also include a drug and alcohol screen.

7.1.1 Safety Critical Worker Questionnaire

This self-administered questionnaire collects a general history and helps identify specific conditions that might affect rail safety task performance, including:

- sleep disorders (Epworth Sleepiness Scale);
- alcohol dependency (AUDIT Questionnaire); and
- psychological problems (K10 Questionnaire).

The questionnaire is not diagnostic and no decision can be made regarding fitness for duty until the clinical examination is completed.

7.1.2 Clinical Examination

The clinical examination assesses the key body systems to identify conditions that might affect rail safety task performance, including cardiovascular, neurological, psychological, musculoskeletal and visual systems and may require referral for further tests or opinion.

7.1.3 Additional Assessment Requirements for High Level Safety Critical Workers (Category 1)

In addition to the Safety Critical Worker Health Assessment, a High Level Safety Critical Worker must have a Cardiac Risk Score assessment to identify their risk of cardiovascular disease and collapse from heart attack.

The assessment will require a pathology test to be conducted prior to the clinical examination for:

- fasting plasma glucose;
- fasting serum cholesterol (total and HDL); and
- resting ECG.

The Cardiac Risk Score tool combines these pathology test results with other risk factors such as age, cigarette smoking and blood pressure to calculate a score on which to base predictions of heart attack risk.

The clinical examination of High Level Safety Critical Workers also focuses on the identification of other health conditions that might result in sudden incapacity or collapse, including hypoglycaemia, epilepsy and transient ischaemic attacks.

7.2 Track Safety Health Assessment (Category 3)

The Track Safety Health Assessment for ATTP (Category 3) comprises eyesight and hearing tests and an assessment to ensure their safe mobility around the track.

7.3 Task-specific Requirements

The health assessment categories provide a general framework for defining health assessment needs. However, certain tasks will have specific requirements, for example for colour vision and/or hearing and/or musculoskeletal attributes.

The health monitoring system should provide appropriate flexibility to ensure that the health assessment requirements reflect the specific requirements of the rail safety tasks, including where appropriate the frequency with which the tasks are undertaken.

Screen-Based Equipment (SBE) Examinations

All persons who work 25% or more of their time on SBE should be routinely tested:

- pre-commencement on SBE;
- every two years over the age of 40 years; and
- whenever symptoms indicate a problem may exist.

7.4 Practical Tests

In some situations a clinical health assessment may need to be supplemented by a practical test to confirm fitness for duty. For example,

practical tests for colour vision, hearing or musculoskeletal capacity may be applied to confirm the worker's ability to conduct the particular tasks required of them.

Practical tests may be performed by persons appropriately trained in the test procedure and with appropriate experience of the tasks involved, eg an OHS Officer or a principal driver. Such persons should work in conjunction with the authorised health professional.

Each rail organisation should develop their own procedures and criteria for practical testing based on their system requirements. Principles of practical testing for hearing, vision and musculoskeletal capacity are outlined in Volume 2 of the Standard, *Assessment Procedures and Medical Criteria*.

The results of such practical tests are not transferable to other organisations/networks unless the work practices and work environments are very similar.

7.5 Drug and Alcohol Screening

All jurisdictions require accredited rail organisations to ensure that rail safety workers are not impaired by alcohol or drugs when performing their work. A zero alcohol tolerance policy applies to the rail environment.

Drug screening is included in pre-placement and/or change of grade health assessments for Safety Critical Workers and is optional for Non-safety Critical Workers as determined by the task risk analysis.

While screening is not intended at Periodic Health Assessment, Volume 2: *Assessment Procedures and Medical Criteria* includes advice for health professionals in applying the drug control procedures where drug or alcohol impairment is suspected at a Periodic Health Assessment.

8. Applying the Risk Management Process to a Particular Rail Environment

8.1 Conducting a Risk Assessment

An accredited rail organisation must perform its own assessment of the rail safety work in its own operating environment and apply health assessments accordingly.

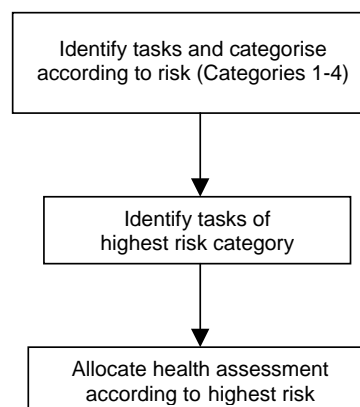
The *Guideline for Health Risk Management* includes examples of typical risk assessments for many rail safety tasks. These are a guide only and are not a substitute for the assessment performed by the rail organisation.

8.2 Risk Assessment of Tasks

A risk assessment should focus on tasks, not on formal grades or job classifications. This is because workers often have to be multi-skilled and perform various tasks.

A risk categorisation should be assigned to a grade or job classification to match the task assessed as having the highest risk to ensure the worker is referred for the appropriate level of health assessment. This is shown in Diagram 6.

Diagram 6. Identifying Health Assessment Requirements



8.3 Documentation of Risk Assessment

As a result of the risk assessment, the rail organisation should develop documentation that records the process for each rail safety task and provides a clear rationale for the health assessment requirements of rail safety workers. A model for this documentation is provided in the *Guideline for Health Risk Management*.

As with any risk management process, it is necessary to monitor health associated risks and the effectiveness of risk treatment strategies to ensure the risk management plan remains effective. Appropriate documentation facilitates this process.

Documentation can also be used to support the understanding of rail safety work by authorised health professionals.

9. Types of Health Assessments

A rigorous health assessment system should:

- confirm that the health and fitness of a rail safety worker candidate is suited to the tasks to be performed;
- periodically monitor the rail safety worker's health during employment to detect conditions that might affect rail safety; and
- enable timely response to concerns about the worker's health.

The health assessment system should therefore comprise the three types of assessments described below.

9.1 Pre-placement or Change of Grade (Risk Category) Health Assessments

Rail safety workers classified in Categories 1, 2 and 3 require health assessments at pre-placement and before changing to a position involving tasks of a higher Risk Category.

The assessments are aimed at determining a worker's fitness for rail

safety duties and should match the risk category of the job they are entering.

Diagram 7 shows how the different types of health assessments work together to support the ongoing fitness for duty for rail safety workers.

9.2 Periodic Health Assessments

Periodic Health Assessments are conducted to identify health conditions that may affect safe performance of rail safety work. They should be conducted for Category 1, 2 and 3 rail safety workers according to the following defined frequencies.

Category 1 and 2: Safety Critical Workers

- At time of commencement then:
- 5 yearly to age 50
- 2 yearly to age 60
- Yearly thereafter

Category 3: ATTP in Uncontrolled Environment

- At time of commencement then
- At 40 years of age and 5 yearly thereafter

The frequencies are a minimum requirement based on evidence of rate of age-associated degenerative illness, the increased power of the revised assessment to detect rail safety workers at risk and comparison with local and overseas standards.

Rail organisations may choose to implement more frequent Periodic Health Assessments should the need and rationale be identified.

Depending on the needs of the worker, authorised health professionals may also recommend more frequent assessments for health surveillance. Ongoing treatment of medical conditions should continue to be the responsibility of the worker's general practitioner.

The program of comprehensive Periodic Health Assessments should be maintained even if more frequent triggered assessments are performed for an individual's particular condition.

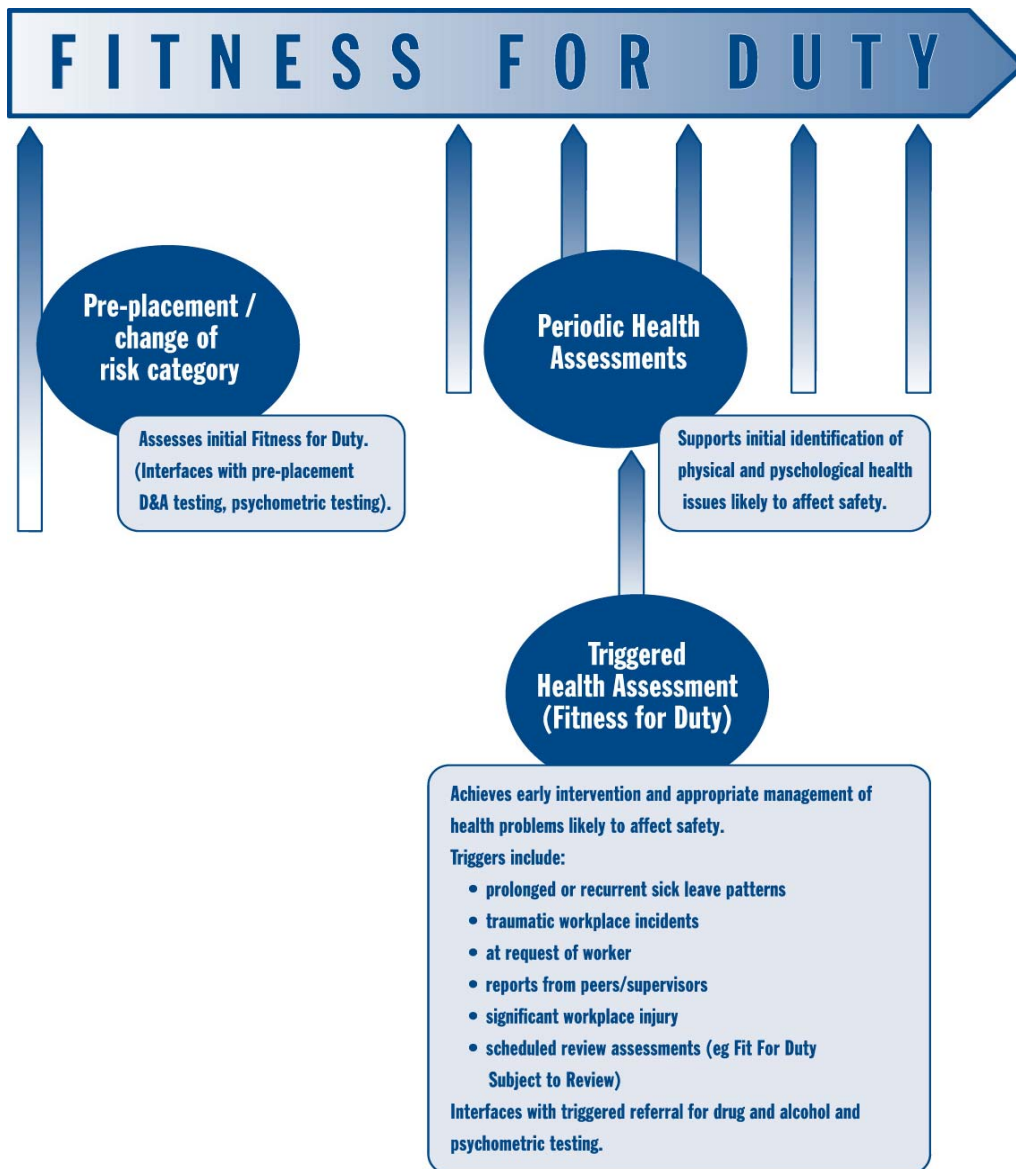
9.3 Triggered Health Assessments

Triggered Health Assessments are conducted in response to incidents or concerns regarding the worker’s ability to perform their job safely. They are likely to address a particular health issue and include scheduled review assessments for conditional fitness for duty (Fit for Duty Subject to Review).

Triggered Health Assessments aim for early intervention and appropriate management of health problems likely to affect safety. They overlay Periodic Health Assessments and help to identify and manage illness of unpredictable and rapid onset.

For example, psychological conditions (eg anxiety states) are not age dependent and onset patterns are not clearly defined. Therefore they may not be readily identified at a Periodic Health Assessment.

Diagram 7. Health Assessments Supporting Fitness for Duty of Rail Safety Workers



Rail organisations should be alert to indicators of ill-health such as recurrent absenteeism, repeated incidents and recent traumatic events and discuss these with the rail safety worker. This may lead to triggered referral for health or neuropsychology assessment, retraining in competencies or referral to an Employee Assistance Program.

To ensure appropriate referrals and transparency in decision-making, the rail organisation should develop and distribute clear referral criteria for Triggered Health Assessments.

Examples of trigger situations include:

**Scheduled Review Assessments
(Fitness for Duty Subject to Review)**

Health assessments scheduled for workers who are assessed Fit for Duty Subject to Review or Temporarily Unfit for Duty Subject to Review are the most common triggered referrals. They are more frequent than standard periodic reviews to allow closer monitoring of a health condition. Review intervals are recommended by the health professional.

**Sick Leave and Patterns of
Absenteeism**

Workers who have been absent from work due to an injury or illness and who have a condition that may adversely affect their ability to perform rail safety duties should be assessed for fitness for duty before return to work, taking account of their rehabilitation plan.

Recurrent absenteeism may also flag the need for referral for health assessment. Sick leave review systems should support and validate such referrals.

Accident/Incident Patterns

Accident/incident patterns may indicate worker difficulties or health issues (for example, a signal passed at danger SPAD). The rail organisation's incident investigation and management procedures should consider potential health (including psychological) issues and refer for health assessment as required.

At Worker's Request

Workers should report to the employer any illness or health problem likely to affect their ability to work safely, including impairment from medication as required by drug and alcohol legislation.

Table 1 summarises the health assessment requirements for the various categories of rail safety workers.

10. Medical Criteria

The medical standards for assessing fitness for rail safety work are provided in Volume 2 *Assessment Procedures and Medical Criteria*. This Volume is designed for use by authorised health professionals. It contains medical criteria, clinical assessment tools and procedures for conducting the health assessments. The volume comprises four parts:

**Part 1: Health Assessment
Requirements and
Procedures**

Part 1 summarises the system of health assessment provisions contained in this Volume. This includes the roles and responsibilities of rail organisations, workers and health professionals, the risk categories for rail safety workers and the nature and frequency of the assessments and the assessment procedures. It also outlines the system of authorisation for health professionals conducting assessments. It is essential that authorised health professionals are familiar with the content of Part 1.

Part 2: Medical Criteria

Part 2 details the medical criteria for assessing fitness for rail safety duty. It comprises:

- Part 2A includes medical criteria for Safety Critical Workers (Categories 1 and 2);
- Part 2B includes the medical criteria for ATTP who work in an Uncontrolled Environment (Category 3).

The medical criteria in Part 2 are presented in chapters corresponding to body system or disease categories and are arranged alphabetically.

Table 1. Summary of Health Assessment Requirements for Rail Safety Workers

Category 1 High Level Safety Critical Worker	
Workers performing tasks critical to the safety of the rail system and whose action, inaction or collapse, due to ill-health, may lead directly to a serious incident affecting the system.	
Type of Health Assessment Required	Frequency
<p>Pre-placement / Change of Grade Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-Based Equipment (SBE) examination if required • Drug screen if required <p>Plus</p> <ul style="list-style-type: none"> • Cardiac Risk Score <p>Additional health assessments may be implemented to meet OHS requirements</p>	On commencement and when moving to a position involving tasks of a higher risk category.
<p>Periodic Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Hearing assessment • Screen-Based Equipment (SBE) examination if required <p>Plus</p> <ul style="list-style-type: none"> • Cardiac Risk Score <p>Additional health assessments may be implemented to meet OHS requirements</p>	<ul style="list-style-type: none"> • 5 yearly to age 50 • 2 yearly to age 60 • Yearly thereafter <p>Note: Depending on the needs of the worker, authorised health professionals may recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should be the responsibility of the worker's general practitioner.</p>
<p>Triggered Health Assessments</p> <p>Nature of health assessment will depend on the triggering circumstances.</p>	As determined by circumstances.
Category 2 Safety Critical Worker	
Workers performing tasks critical to the safety of the rail network whose action or inaction, due to ill-health, may lead directly to a serious incident affecting the system.	
Type of Health Assessment Required	Frequency
<p>Pre-placement / Change of Grade Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-Based Equipment (SBE) examination if required • Drug screen if required <p>Additional health assessments may be implemented to meet OHS requirements</p>	On commencement and when moving to a position involving tasks of a higher risk category.
<p>Periodic Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-based equipment (SBE) examination if required <p>Additional health assessments may be implemented to meet OHS requirements</p>	<ul style="list-style-type: none"> • 5 yearly to age 50 • 2 yearly to age 60 • Yearly thereafter <p>Note: Depending on the needs of the worker, authorised health professionals may recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should be the responsibility of the worker's general practitioner.</p>
<p>Triggered Health Assessments</p> <p>Nature of health assessment will depend on the triggering circumstances.</p>	As determined by circumstances.

Category 3 Around the Track Personnel Operating in an Uncontrolled Environment	
Those workers who are required to operate on or near the track but without engineering or administrative controls to protect them from moving rolling stock, and whose action or inaction due to ill-health may endanger their safety or that of work colleagues.	
Type of Health Assessment Required	Frequency
Pre-placement /Change of Grade Health Assessments Track Safety Health Assessment including: <ul style="list-style-type: none"> • Vision and hearing • Mobility • Drug screen depending on task risk analysis Additional health assessments may be implemented to meet OHS requirements	On commencement and when moving to a position involving tasks of a higher risk category.
Periodic Health Assessments Track Safety Health Assessment including: <ul style="list-style-type: none"> • Vision and hearing • Mobility Additional health assessments may be implemented to meet OHS requirements.	<ul style="list-style-type: none"> • At age 40 and 5 yearly thereafter Note: Depending on the needs of the worker, authorised health professionals may recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should be the responsibility of the worker's general practitioner.
Triggered Health Assessments Nature of health assessment will depend on the triggering circumstances.	As determined by circumstances.

Category 4 Other including Around the Track Personnel (ATTP) Operating in a Controlled Environment	
Other than those in Categories 1-3.	
Type of Health Assessment Required	Frequency
No prescribed health assessment other than OHS assessments or for alcohol and drug controls.	N/A

Part 3: Rail Safety Worker Case Studies

Part 3 contains a series of case studies that help illustrate rail safety tasks, the health requirements for those tasks, the process of health assessment and subsequent management.

Part 4: Model Forms

Part 4 includes the model forms as are appended to this Volume.

11. Reporting and Managing Fitness for Duty

Accredited rail organisations should adopt standard terminology for reporting and managing rail safety workers' fitness for duty.

The terminology provided below is used in the model forms in Part 3 of this Volume. Its use in communicating with workers and health professionals and for managing

situations is illustrated in the case studies in Volume 2.

Fit for Duty

This indicates the worker has met all criteria in the standard and is to be reviewed in line with the normal periodic health assessment schedule.

Fit for Duty Subject to Review

This indicates the worker has not met all criteria in the standard, however the condition in question is sufficiently controlled to permit normal duties. Continuation of normal duties is conditional on the worker being reviewed more frequently than the periodic assessment schedule. The review period is specified by the authorised health professional.

Fit for Duty Subject to Job Modification

This indicates the worker does not meet all criteria of the standard, but could

perform current rail safety duties if suitable modifications were made to the job. These modifications may include:

- Modification of physical equipment;
- Roster changes; or
- worker supervision

Job modifications may not be practicable in various areas of rail safety work.

Temporarily Unfit for Duty Subject to Review

This indicates the worker has not met all criteria in the standard and cannot perform current rail safety duties at present. However the condition is anticipated to improve with treatment and the worker will be reviewed to determine fitness status. This differs from ordinary short-term illness causing absenteeism. Temporarily Unfit for Duty may also be applied in situations where a clear diagnosis has not been made, in the case of an undifferentiated illness, for example where a worker is being investigated for blackouts. The examining health professional will advise about the period for review. The worker may be assessed fit for alternative duties.

Permanently Unfit for Duty

This indicates the worker has not met all criteria in the standard, their condition is permanent and they will not be able to perform current rail safety duties in the future. Normal company policies such as for redeployment may be considered.

12. Appointing and Authorising Health Professionals

12.1 Who May Perform Health Assessments

The accredited rail organisation should appoint a suitably qualified and competent health professional to conduct the assessments of rail safety workers (an authorised health professional).

Safety Critical Worker Health Assessments must be performed by a medical practitioner. Track Safety Health

Assessments may be performed by a nurse with suitable occupational health qualifications.

Practical on-site tests, such as tests for colour vision, hearing or musculoskeletal capacity, may be performed by a person with appropriate skills and experience. Such a person is not required to be health trained but should work in conjunction with the authorised health professional.

12.2 Criteria for Appointing Authorised Health Professionals

The rail organisation should ensure the authorised health professional meets the selection criteria in Table 2 as a basis for appointment.

The selection criteria focus on the health professional's knowledge and understanding of the rail occupational environment, the risks associated with rail safety work and the corresponding clinical tests to be applied.

Rail organisation personnel are well equipped to make such an assessment. The criteria do not require the rail organisation to assess the health professional's medical knowledge.

The rail organisation may offer assistance to the health professional to meet the criteria. This can be done by providing them with relevant information, a briefing and/or a site visit and with a copy of *Volume 2: Assessment Procedures and Medical Criteria*.

The rail organisation should maintain a current list of authorised health professionals, including evidence that the criteria have been met in a form readily accessible to audit.

The rail organisation should ensure that authorised health professionals are kept up to date on changes to legislation, the Standard and the rail organisation's policies and procedures.

The rail organisation may require authorised health professionals to forward rail safety worker health records, including the Safety Critical Worker Health Questionnaires, (Pink Forms), Health

1.3 Example: Shunting

TASK: PERFORMANCE OF SHUNTING DUTIES	
CONTEXT: The organisation is a private operator and supplier of freight services across 5 states of Australia. It operates over 4,000km of track with 107 locomotives of varying design and 2,600 freight wagons. Freight carried ranges from timber and grain to general containers, including dangerous goods. The organisation employs 780 employees.	
ACTIVITIES AND WORKING CONDITIONS: <p>Shunting work occurs mainly in freight rail yards and involves marshalling the trucks or carriages that make up a train. A rake of trucks may be hundreds of metres long and may contain dangerous goods.</p> <p>The shunter works as a team with the driver of the engine and sometimes a signalman, using radio communication. The shunter acts as the eyes of the driver and controls precise shunting. The work involves:</p> <ul style="list-style-type: none"> • walking extensively over uneven ballast; • opening and closing coupling mechanisms; • applying or releasing brakes to carriages and trucks; • reading colour signals and flags but at lower speeds than train drivers; • using spoken and hand signals to communicate during shunting movements; • coupling air compression lines; • boarding/alighting from trucks and carriages. <p>Shunters also work shiftwork.</p>	HEALTH ATTRIBUTES: <p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when performing shunting activities; • Musculoskeletal strength and agility in order to walk/run on uneven surfaces; apply or release brakes to carriages and trucks; board/alight from carriages; couple air compression lines which requires bending in restricted spaces; • The ability to communicate via signal phones, radios and at a distance to a workgroup; • The ability to determine colour signals and use coloured flags. <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
ENGINEERING AND PROCEDURAL ENVIRONMENT: The commercial rail networks may be protected from the marshalling yards by roll out protection, which would derail any runaway trucks. In addition loose shunting is not permitted. However an error or a sudden incapacity may result in an accident with derailed trucks fouling the commercial rail network or a possible explosion occurring.	
RISK ANALYSIS AND CATEGORISATION: <p>Shunting work is <i>Safety Critical at a High Level</i> because:</p> <ul style="list-style-type: none"> • The freight may comprise dangerous goods thus an accident with derailed trucks entering the commercial rail network or an error or a collapse may result in a possible explosion or environmental contamination; • Loss of vigilance through physical or psychological ill health in performing the shunting activities could result in a serious incident on the rail network eg through incorrectly routing shunted carriages onto the main line; • Frequent communication (eg every 5 seconds) is not an established procedure and is impractical in most instances. 	High Level SCW (Category 1)

Assessment Records (Green Forms) and other supporting clinical information, to the Chief Medical Officer, or another designated authorised health professional, if the practice ceases to operate or ceases to undertake rail safety health assessments. Such arrangements are aimed at supporting continuity of records. Transfer of rail workers health record must comply with privacy principles.

13. Administrative Systems

13.1 Health Assessment Database

The rail organisation should establish an appropriate database to help administer health assessments. The database should identify:

- each rail safety workers' risk category and assessment required;
- the due date for each worker's assessment; and
- any restrictions or conditions on the worker's fitness for duty.

It should be managed so that timely reminders to supervisors and workers are issued and followed up.

A worker's health assessment status must be kept confidential and released only as required to the worker, the supervisor and the organisation's authorised health professional(s).

13.2 Privacy Laws

In administering the rail safety worker health assessments, rail organisations must ensure that the Privacy Principles contained in Privacy legislation are complied with and that health records are managed and stored in line with the relevant Health Records legislation. Rail organisations should consult the Privacy Commissioner in their jurisdiction if they are uncertain about local requirements.

13.2.1 Privacy Policy

The health records and privacy legislation of each jurisdiction may require organisations to have a privacy policy for health information. This includes

provision for ensuring workers are clearly informed about:

- the purpose for collecting and storing the health information;
- what information will be stored and where;
- the fact that they can access it; and
- to whom the information may be disclosed.

13.2.2 Primary Purpose

Only information justifiably necessary to assess fitness for rail safety work should be collected.

Information must only be disclosed for the primary purpose for which it was collected, that is for assessing fitness for rail safety duty.

The rail organisation cannot request an examination outside the health requirements of the worker's job and cannot provide the examining health professional with information that is not relevant to the health assessment for that job.

13.2.3 Information disclosure

Health information should be reported on a need to know basis from a doctor to a rail organisation.

The authorised health professional must not disclose the worker's clinical records to the rail organisation. The rail organisation needs to know fitness for duties (or any restrictions), not the underlying medical conditions.

Worker/patient consent must be obtained to disclose any health information to a third party unless permitted by law as with workers compensation.

However a doctor is not prohibited from giving the rail organisation general advice about fitness for duty provided he or she doesn't refer to the worker's medical details.

Where a rail organisation employs the services of a Chief Medical Officer (CMO), their CMO may request a copy of the Health Assessment Record (Green Form), the Safety Critical Worker Health Questionnaire (Pink Form) and/or other supporting clinical records from the

authorised health professional in order to ensure consistency and quality of health assessments for rail safety workers in the organisation or to assist management of a particular worker. Where such records are accessed or retained by the CMO their confidentiality must be assured and systems must be in place to ensure records are not accessed by other personnel within the rail organisation. This is consistent with privacy provisions.

13.2.4 Maintenance and Storage of Information

Information should be kept accurate, up to date and protected from loss and unauthorised use.

For continuity of records a rail organisation may establish a repository for rail safety worker health records provided that such records are accessible only by authorised health professionals and the Chief Medical Officer.

Records may be scanned and kept in electronic form. The worker's signature on the completed Safety Critical Worker Health Questionnaire is legally valid after scanning.

13.2.5 Interstate Considerations

Where workers work across State or Territory boundaries, information should only be transferred to other States or Territories where privacy laws are similar.

13.3 Health Assessment Forms

Model forms are provided in Part 3 of this Volume as a template for accredited rail organisations to develop their administrative processes.

The forms are colour coded to facilitate use by the authorised health professionals and the rail organisation.

Administrative detail on the forms may be altered consistent with a rail organisation's requirements. The provisions for reporting from health professional to rail organisation, and the content of the Safety Critical Worker Questionnaire represent standardised data collection and should not be altered.

The model forms are also consistent with Privacy Principles. The rail organisation should confer with the Privacy Commissioner in their jurisdiction to ensure any changes made to the forms are consistent with Privacy and Health Records legislation.

Use of the forms is described below and in Diagram 8.

13.3.1 Health Assessment Request and Report Form (SCW - Blue Form, Track Safety - Mauve Form)

This form facilitates communication between the rail organisation and the authorised health professional. The rail organisation completes relevant details regarding the worker and the type of assessment requested. The authorised health professional summarises fitness for duty assessment findings on the form and returns it to the organisation. Medical data is not conveyed, only functional capacity.

13.3.2 Health Assessment Notification Form for Workers (SCW - Pink Form, Track Safety - Mauve Form)

This form notifies the worker of the requirement to attend a health assessment. It includes the reasons for the assessment and instructions for the worker. For the Safety Critical Worker Health Assessment it includes the Safety Critical Worker Health Questionnaire. For the Track Safety Health Assessment the notification may be combined with the Request and Report Form.

13.3.3 Health Assessment Record for Authorised Health Professionals (SCW - Green Form, Track Safety - White Form)

This form guides the health professional through the assessment process and provides a standard clinical record. The rail organisation issues the form but, since it will contain details of the clinical findings, it must not be returned to the organisation, but retained by the health professional.

Where a rail organisation employs the services of a Chief Medical Officer (CMO),

their CMO may request copies of the Health Assessment Record but must maintain confidentiality of such information according to Privacy legislation (refer 13.2.3).

13.3.4 Task Risk Assessment Template

The Task Risk Assessment form is a template which guides the process of risk assessment of rail safety tasks. The completed form should detail activities involved in the worker’s task as well as health attributes required to complete the task. It is recommended a copy be included with the information provided to the authorised health professional.

13.4 Worker Identification

The rail organisation should establish systems to ensure proof of identity for the rail safety worker for the purposes of the health assessments including pathology testing.

These should include a photo ID and may include a record of the currency of health assessment and review requirements.

13.5 Communication with Workers

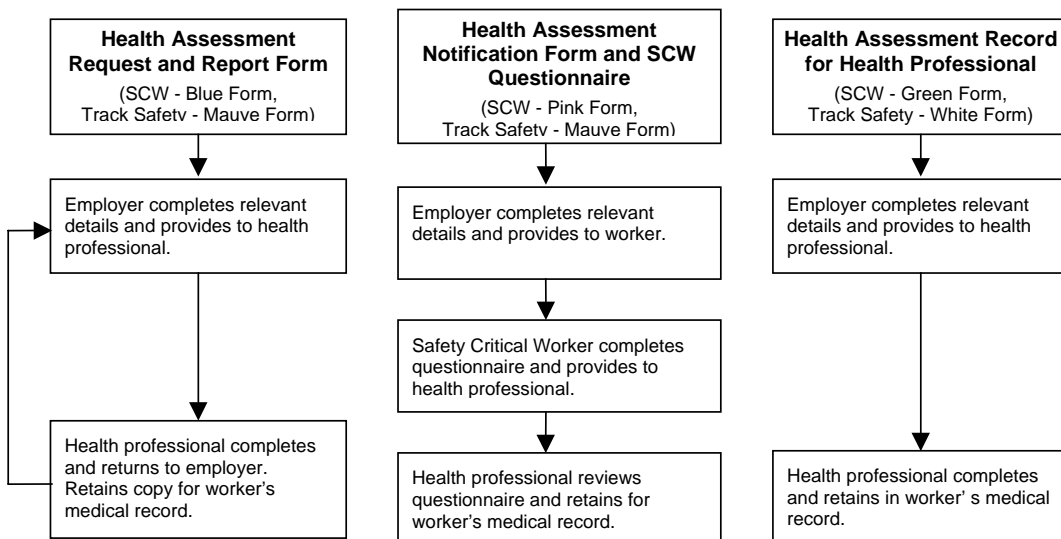
The rail organisation should establish communication mechanisms to alert workers of health assessment requirements, including alerts to management and workers if systems are breached.

13.5.1 Before the Assessment

The worker should receive adequate notice of the due date for their health assessment and the consequences of not presenting for the assessment in that timeframe. In line with Privacy Principles and the general requirements of the assessment, the notification will include advice on:

- the purpose of the assessment;
- who will conduct the assessment;
- who will receive the assessment report;
- the worker’s responsibility to provide accurate information;
- the requirement to take photo ID to the appointment and to any other tests; and
- the requirement to attend audiometry testing.

Diagram 8. Use of Health Assessment Forms



Additional information for Safety Critical Workers (Categories 1 and 2) includes the requirement to:

- complete the Health Questionnaire prior to attending the appointment;
- take current medication (or a list of it) to the health assessment appointment (including prescription, over the counter and alternative medicines); and
- attend pathology tests before the health assessment (for High Level Safety Critical Workers only) for ECG, serum cholesterol (total and HDL), and blood glucose. The worker should be instructed to fast as appropriate prior to pathology tests.

13.5.2 After the Assessment

On receipt of the Health Assessment Report Form, where the worker has been assessed as other than Fit for Duty, the employer should discuss with the worker any implications for their work and the policies or arrangements to be applied.

A record of such arrangements should be kept on the database together with the health assessment result and any requirements for review assessments.

13.6 Communication with the Authorised Health Professional

13.6.1 Before the Assessment

The health professional should not undertake a health assessment of a rail safety worker without the appropriate forms.

The rail organisation should give the authorised health professional all forms and supporting information relevant to the worker's health assessment.

13.6.2 Supporting Information

For a Periodic Safety Critical Worker Health Assessment, relevant supporting information includes the previous health assessment report.

In addition, the following information for the previous period should be provided to the health professional as relevant:

- any change in sick leave patterns;
- relevant workers compensation history;
- critical incident history;
- positive drug and alcohol assessments;
- record of involvement in a serious incident.

The above information may be provided in summary and in any format that is administratively efficient and sufficiently comprehensive for the health professional.

ATTP (Category 3) undergoing Periodic Track Safety Health Assessments do not require such detailed support information. However information relevant to the safe performance of their duties should be provided, for example, positive drug and alcohol assessments for the previous period.

13.6.3 After the Assessment

The authorised health professional should contact the rail organisation immediately by phone if the worker is Unfit for Duty but should not reveal details of the worker's medical condition without the worker's consent.

The health professional should not fax reports to the rail organisation for reasons of privacy, unless confidentiality can be assured.

The rail organisation should keep all reports confidentially and securely in compliance with Privacy and Health Records legislation.

13.7 Portability of a Worker Health Assessment Report

If a rail safety worker has undertaken a health assessment for an accredited rail organisation, the Health Assessment Report (Blue Form) may be transferable to another rail organisation provided the rail safety worker has given written agreement. Provision for signed consent of transfer is included on the Blue Form.

The organisation receiving the Health Assessment Report has a responsibility to confirm:

- that the level of health assessment performed by the original rail organisation (ie Category 1, 2 or 3) is equal to or greater than that required for the tasks undertaken by the rail safety worker in the other organisation; and
- that the specific health attributes required by the original rail organisation (eg colour vision, hearing, musculoskeletal) are equal to or greater than those required to complete the tasks in the other organisation.

Practical tests, such as for colour vision, hearing or musculoskeletal capabilities, are generally quite specific to the particular rail environment. The results of such tests are not transferable to other organisations unless the work practices and environment are very similar.

If the rail safety worker works for more than one organisation, they have a responsibility to ensure each employer is advised about conditions that may affect their safe working ability.

14. Internal Audits

14.1 General

The accredited rail organisation should perform regular audits to verify whether rail safety worker health monitoring systems comply with planned arrangements and to determine monitoring system effectiveness.

14.2 Scheduling

Audits should be scheduled to take account of the risk categories assigned to the rail safety work. Follow up should occur according to documented procedures.

14.3 Reporting and Recording

Audit results should be documented and given to management responsible for the audited area so that timely corrective action can be taken.

Appendix 1: Model Forms

1. Safety Critical Worker Health Assessment

1.1 Request and Report Form

The Request and Report form (Blue Form) is the key means of communication between the rail organisation and the Authorised Health Professional.

The form is used as follows:

1. **Part A:** The employer completes PART A, encloses copies of relevant supporting information (eg. previous Health Assessment Report, sick leave summary, relevant worker's compensation reports or critical incident reports) and a copy of the Health Professional Record (Form 1.3), and forwards them to the examining health professional.
2. **Part B:** Upon completion of the assessment, the health professional completes PART B of the form, retains a copy and returns the original form to the employer.
3. **Part C:** The employer completes PART C of the form to indicate the action taken as a result of the assessment.
4. **Part D:** The worker/applicant completes PART D of the form to indicate agreement to the portability of the Health Assessment Record.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION
A COPY SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL

CONFIDENTIAL

Safety Critical Worker Health Assessment REQUEST AND REPORT FORM (BLUE FORM)

IMPORTANT INFORMATION

To the Employer

- Please complete all relevant details in PART A of the form including:
 - Personal details of the worker/applicant.
 - Appointment details.
 - A description of the rail safety duties to be performed by the worker/applicant (or attach Job Description or Task Risk Assessment).
 - The category of risk determined by the tasks and therefore the level of assessment (Category 1 or 2).
 - The type of assessment requested (eg. Pre-placement, Periodic, Triggered).
 - The pathology tests required (High Level Safety Critical Worker only).
 - Audiometry requirements.
- Additional forms and information to be issued with this request include:
 - Health Assessment Record (Green Form) to be completed and retained by the examining health professional.
 - Screen-based Equipment Request and Report Form and Assessment Record (if required).
 - Any additional information relevant to the assessment including copies of previous Health Assessment Report, relevant workers compensation reports, critical incident history and sick leave record.
- On receipt of the completed Health Assessment Report:
 - Complete PART C and take action as appropriate
 - Ask the worker/applicant to complete and sign PART D as required in order to give permission for the health assessment result to be forwarded to another rail organisation.

To the Health Professional

- You are requested to conduct a health assessment to assess the worker's fitness for rail safety duties according to the details provided in PART A of this form and according to Volume 2 of the *National Standard for Health Assessment of Rail Safety Workers*.
- You must sight photo identification of the worker/applicant (eg Rail Safety Worker's Card, driver's licence).
- Please perform the assessment, complete PART B of this form and return to the worker's employer according to instructions noted in PART A, within 7 days of the assessment, OR should the worker be assessed Unfit for Duty, please contact the employer immediately by phone so that appropriate rostering changes may be made.
- Category 1 High Level Safety Critical Workers are required to present for fasting cholesterol (total and HDL), fasting glucose and an ECG for Pre-placement, Change of Grade (Risk Category) and Periodic Health Assessments. Results will be forwarded to you directly.
- Both Category 1 and Category 2 Safety Critical Workers are required to have audiometry for Pre-placement, Change of Grade (Risk Category) and Periodic Health Assessments. This will be arranged separately if audiometry facilities are not available at your practice.
- You may need to contact the worker's/applicant's nominated doctor to discuss conditions that may affect their fitness for rail safety work. Such contact should be made with the worker's signed consent (provision for this is included on the Green Form).
- Details of the examination should be recorded on the enclosed Health Assessment Record (Green Form). This record is confidential and should be retained by you, not returned to the employer. The employer's Chief Medical Officer (if they have one) may contact you for more information regarding the worker's condition.
- For more detailed information about the conduct of health assessments for rail safety workers see Volume 2 of the *National Standard for Health Assessment of Rail Safety Workers*.

PART A – Employer to complete

1. Worker/Applicant Details	
Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:

2. Rail Organisation Details		
Supervisor/contact:		
Date of request:	Phone:	Facsimile:
Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):		

3. Health Assessment Appointment Details:	
Doctor/Practice:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

4. Description of Duties (or see attached Job Description or Task Risk Assessment)

5. Supporting information relevant to the assessment (tick information provided):
<input type="checkbox"/> Previous relevant Health Assessment Report(s)
<input type="checkbox"/> Relevant sick leave for last 12 months (number of days, not details): _____
<input type="checkbox"/> Relevant Workcover history
<input type="checkbox"/> Relevant Critical Incident episodes
<input type="checkbox"/> Positive Drug and Alcohol Assessment Reports
<input type="checkbox"/> Record of involvement in serious rail safety incidents
<input type="checkbox"/> Other (specify): _____ _____ _____ _____ _____

6. Type of Assessment required
<input type="checkbox"/> Pre-placement / Change of Risk Category Health Assessment
<input type="checkbox"/> Periodic Health Assessment
<input type="checkbox"/> Triggered Health Assessment (specify reason): _____
<input type="checkbox"/> Drug Screen
<input type="checkbox"/> Screen-Based Equipment Examination
<input type="checkbox"/> Other (specify): _____

7. Risk Category/Level of Assessment
<input type="checkbox"/> Category 1 (High Level Safety Critical Worker)
<input type="checkbox"/> Category 2 (Safety Critical Worker)
Specific Health Requirements:
Colour vision <input type="checkbox"/> Normal
<input type="checkbox"/> Colour Defective Safe A
<input type="checkbox"/> Colour Defective Safe B (SBE)
Hearing <input type="checkbox"/> Driver
<input type="checkbox"/> Non Driver / Other
Musculoskeletal (note specific requirements): _____ _____ _____

8. Tests Ordered:
Cardiac Risk Assessment (Category 1 only)
<input type="checkbox"/> Fasting Cholesterol (total and HDL)
<input type="checkbox"/> Fasting Plasma Glucose
<input type="checkbox"/> Resting ECG
<input type="checkbox"/> Drug Screen
Pathology ordered from: _____
<input type="checkbox"/> Audiometry (Category 1 and 2)
Audiometry ordered from: _____

Worker/Applicant Name:		
Employee No.	Date of birth:	Date of Request:

PART B – Health Professional to complete

I have sighted the worker's Rail Safety Worker Card Number _____ **OR**

I have sighted the worker's/applicant's photo ID (eg driver's licence, passport) Number _____

I certify that I have examined the worker/applicant named in accordance with the medical standards contained in the *National Standard for Health Assessment of Rail Safety Workers, Volume 2: Assessment Procedures and Medical Criteria* and in my opinion the worker/applicant is (tick appropriate box):

<input type="checkbox"/> Fit for Duty – Meets all relevant medical criteria.	<input type="checkbox"/> Local doctor referral <input type="checkbox"/> Conditional on corrective lenses <input type="checkbox"/> Conditional on hearing aid <input type="checkbox"/> Other condition (specify): _____ _____ _____
<input type="checkbox"/> Fit for Duty Subject to Review – Does not meet all medical criteria, but could perform rail safety work if the condition is sufficiently under control and worker is more frequently reviewed than prescribed under periodic review.	I recommend: <input type="checkbox"/> Review at this practice DATE: <input type="text"/> <input type="checkbox"/> Specialist referral <input type="checkbox"/> Local doctor referral <input type="checkbox"/> Company Medical Officer referral <input type="checkbox"/> Laboratory tests <input type="text"/> This certificate is valid until: <input type="text"/>
<input type="checkbox"/> Fit for Duty Subject to Job Modification – Does not meet all medical criteria, but could perform rail safety work if suitable modifications were made to the duties.	I recommend the following job modifications: _____ _____ _____
<input type="checkbox"/> Temporarily Unfit for Duty Subject to Review – Does not meet all medical criteria and cannot perform current rail safety tasks but may perform alternative non-safety tasks. May return to full duty pending improvement in condition, response to treatment, confirmed diagnosis of undifferentiated illness.	I recommend the following in terms of management and review: _____ _____ _____
<input type="checkbox"/> Permanently Unfit for Duty – Does not meet the medical criteria and cannot perform the job in the future.	I recommend the following in terms of management and review: _____ _____ _____

Drug Screen Results (Pre-placement or Change of Grade/Risk Category only):

Health Professional Details (stamp acceptable)

Name:	Phone:	Facsimile:
Practice address:		
Signature:		Date of Assessment:

PART C – Employer to complete on receipt of Assessment Report

Action taken as a result of Health Assessment:

Job modification (details): _____

Triggered review (indicate period): _____

Periodic Health Assessment scheduled (details): _____

Redeployment (details): _____

Drug Assessment (details): _____

Part D – Worker to complete regarding portability of assessment result

I, _____ (Print Name) give permission for this health assessment to be forwarded to another rail organisation as confirmation of fitness for duty.

Signature: _____ Date: ____/____/____

1.2 Worker Notification and Health Questionnaire

This form contains the notification to the worker and the Safety Critical Worker Health Questionnaire.

The self-administered questionnaire is a screening tool to help identify conditions that might affect the performance of safety critical work. The questionnaire is not a diagnostic tool and no decision can be made regarding the worker's fitness for duty until the full clinical examination is performed.

The health professional may need to guide or assist with completion of the questionnaire if literacy or cultural background presents a barrier to self-administration by the worker. The health professional will also need to review the answers with the worker to ascertain relevant detail.

Dishonest completion of the questionnaire may be an issue. Workers are required to sign the completed questionnaire in the presence of the examining health professional and the health professional should countersign.

The form is used as follows:

1. **Part A:** The employer requests that the worker/applicant sign the front of the form to indicate that they have read and understood the statements concerning the health information to be provided. The employer completes PART A including appointment details and instructions to the worker/applicant.
2. **Part B:** The worker/applicant completes PART B and presents to the health professional. The worker/applicant signs the form as a true statement and the health professional countersigns.
3. The employer discusses the results with the worker/applicant. The form is retained by the health professional and filed in the workers medical record.

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (other than the Chief Medical Officer if requested)

CONFIDENTIAL

Safety Critical Worker Health Assessment WORKER NOTIFICATION AND HEALTH QUESTIONNAIRE (PINK FORM)

IMPORTANT INFORMATION

To the Worker/Applicant,

- You are required to attend a health assessment as a condition of your employment, to assess your fitness for undertaking rail safety work.
- The health assessment must be completed by (date)_____ to ensure that you are able to carry out normal duties.
- Complete the enclosed questionnaire BEFORE ATTENDING THE APPOINTMENT and provide it to the examining health professional. **The bottom of the questionnaire must be signed by you in the presence of the examining doctor.**
- Take glasses, hearing aid or any other aids required for safety critical work to the appointment.
- Take all medication that you are currently taking to the appointment or a list of such medications.
- Take photo identification with you to the appointment.
- If you are **High Level Safety Critical Worker (Category 1)** you will be required to have a blood test as part of your assessment. So as to get a true reading of your blood sugar and cholesterol (total and HDL) you should not eat for a minimum of 8hr (and no longer than 14hr) before your blood test appointment. You may drink water but should not take sweetened drinks.

What happens if the examining doctor finds a problem with your health?

If the examining doctor finds or suspects something is wrong with your health that you did not know about, they will ask your permission to inform your own doctor. The examining doctor will not treat any medical condition but will give you a letter to take to your own doctor.

If the doctor finds that you do not meet all relevant medical criteria, your supervisor at the rail organisation(s) will discuss with you the appropriate action to be taken. This may include:

- modification to the duties that you undertake for that railway organisation
- scheduling of a further review, tests or specialist referral.

DISCLOSURE OF HEALTH INFORMATION – PLEASE READ CAREFULLY AND SIGN TO INDICATE YOUR UNDERSTANDING OF HOW YOUR HEALTH INFORMATION IS REPORTED, STORED AND ACCESSED

The details of your health assessment will remain confidential and will only be reported to your employer in terms of your fitness for duty. The examining doctor retains all detailed medical papers including your questionnaire responses, test results and the completed record of clinical findings. The examining doctor sends the completed **'Request and Report Form: Safety Critical Worker Health Assessment'** directly to the referring rail organisation indicating your fitness or otherwise for duty.

Where your employer utilises the services of a Chief Medical Officer (CMO), the CMO may request a copy of the examining doctor's clinical report and test results to aid in the management of your health in relation to your work. The CMO must maintain the confidentiality of the records and ensure they are not made available to, or discussed with any other person within the rail organisation.

Other than the above, no information will be disclosed to any other person or organisation without your written permission, except where:

- a notifiable disease is diagnosed which must, by law, be reported to the State authorities
- a report is subpoenaed by a court of law
- the Secretary to the Department of Infrastructure (or another person) is required to conduct an inquiry into a railway accident or incident.

You have the right to access your health records including those held by the authorised health professional and the CMO (if relevant) and the reports held by the rail organisation.

WORKERS DECLARATION

I, _____ (Print Name)

certify that I have read and understood the above statement concerning the health information provided herein.

Signature: _____

Date: _____

PART A1– Employer to complete

1. Worker/Applicant Details	
Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:

2. Rail Organisation Details		
Supervisor/contact:		
Date of request:	Phone:	Facsimile:

3. Health Assessment Appointment Details	
Doctor/Practice:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

4. Tests ordered (Category 1 only):	5. Other Tests ordered (Category 1 & 2):
<p>Pathology:</p> <p><input type="checkbox"/> Fasting Cholesterol - Total and HDL (Category 1 only)</p> <p><input type="checkbox"/> Fasting Plasma Glucose (Category 1 only)</p> <p>Location and appointment time:</p> <p>_____</p> <p>_____</p> <p>Other:</p> <p><input type="checkbox"/> Resting ECG (Category 1 only)</p> <p>Location and appointment time:</p> <p>_____</p> <p>_____</p>	<p><input type="checkbox"/> Audiometry (Category 1 and 2)</p> <p>Location and appointment time:</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/> Drug Screen (Preemployment / Change of Grade only)</p> <p>Location and appointment time:</p> <p>_____</p> <p>_____</p>

PART A2 – PATHOLOGY REQUEST

Please accept this form as a referral for this employee/applicant to undertake fasting glucose and lipid pathology (Total cholesterol and HDL) screening.

Please fax the results of the pathology to the examining doctor at the address in part (3) above.

Please forward the account to the rail organisation contact at the address in part (2) above.

Pathology Service to complete:

I have sighted the worker's Rail Safety Worker Card Number _____ **OR**

I have sighted the worker's / applicant's photo ID (driver's licence or passport) Number _____

Signature: _____ **Date of pathology attendance:** ____/____/____

Name: _____ (print) **Phone:** _____

Pathology address: _____

PART B - SAFETY CRITICAL WORKER HEALTH QUESTIONNAIRE– Worker to complete

This questionnaire must be completed in order to help assess your fitness for safety critical work.

Please answer the questions by ticking the correct box or circling the appropriate response. If you are not sure, leave question blank and ask the examining health professional what it means.

The health professional will ask you more questions during the assessment.

		NO	YES
1.	Are you currently being treated by a doctor for any illness or injury?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are you receiving any medical treatment or taking any medication (prescribed or otherwise)? <i>(Please take any medications with you to show the doctor) Please note brief details</i>	<input type="checkbox"/>	<input type="checkbox"/>
.....			
3.	Have you ever had, or been told by a doctor that you had any of the following?		
		NO	YES
	NO	YES	NO
	YES	NO	YES
3.1	High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Heart disease	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Chest pain, angina	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Any condition requiring heart surgery	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Palpitations/irregular heartbeat	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Abnormal shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>
3.7	Do you smoke or have you ever been a smoker?	<input type="checkbox"/>	<input type="checkbox"/>
3.8	Head injury, spinal injury	<input type="checkbox"/>	<input type="checkbox"/>
3.9	Seizures, fits, convulsions, epilepsy	<input type="checkbox"/>	<input type="checkbox"/>
3.10	Blackouts or fainting	<input type="checkbox"/>	<input type="checkbox"/>
3.11	Migraine	<input type="checkbox"/>	<input type="checkbox"/>
3.12	Stroke	<input type="checkbox"/>	<input type="checkbox"/>
3.13	Dizziness, vertigo, problems with balance	<input type="checkbox"/>	<input type="checkbox"/>
3.14	Double vision, difficulty seeing	<input type="checkbox"/>	<input type="checkbox"/>
3.15	Colour blindness	<input type="checkbox"/>	<input type="checkbox"/>
3.16	Kidney disease	<input type="checkbox"/>	<input type="checkbox"/>
3.17	Diabetes	<input type="checkbox"/>	<input type="checkbox"/>
3.18	Neck, back or limb disorders	<input type="checkbox"/>	<input type="checkbox"/>
3.19	Hearing loss or deafness or had an ear operation or use a hearing aid?	<input type="checkbox"/>	<input type="checkbox"/>
3.20	Do you have difficulty hearing people on the telephone (including use of hearing aid if worn)?	<input type="checkbox"/>	<input type="checkbox"/>
3.21	Have you ever had, or been told by a doctor that you had a psychiatric illness or nervous disorder?	<input type="checkbox"/>	<input type="checkbox"/>
3.22	Have you ever had any other serious injury, illness, operation, or been in hospital for any reason?	<input type="checkbox"/>	<input type="checkbox"/>
3.23	Do you use illicit drugs?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Please tick the box 'NO' or 'YES' in response to the following:	NO	YES
4.1	Have you ever had, or been told by a doctor that you had a sleep disorder, sleep apnoea, or narcolepsy?	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Has anyone noticed that your breathing stops or is disrupted by episodes of choking during your sleep?	<input type="checkbox"/>	<input type="checkbox"/>
Epworth Sleepiness Scale			
4.3	How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired? This refers to your usual way of life in recent times. Even if you haven't done some of these things recently try to work out how they would have affected you. Use the following scale to choose the most appropriate number for each situation:		
	<i>0 = would never doze off</i>	<i>2 = moderate chance of dozing</i>	
	<i>1 = slight chance of dozing</i>	<i>3 = high chance of dozing</i>	
	Chance of Dozing (0 to 3)		
Situation	0	1	2
	3		
4.3.1	Sitting and reading	<input type="checkbox"/>	<input type="checkbox"/>
4.3.2	Watching TV	<input type="checkbox"/>	<input type="checkbox"/>
4.3.3	Sitting, inactive in a public place (eg. a theatre or meeting)	<input type="checkbox"/>	<input type="checkbox"/>
4.3.4	As a passenger in a car for an hour without a break	<input type="checkbox"/>	<input type="checkbox"/>
4.3.5	Lying down to rest in the afternoon when circumstances permit	<input type="checkbox"/>	<input type="checkbox"/>
4.3.6	Sitting and talking to someone	<input type="checkbox"/>	<input type="checkbox"/>
4.3.7	Sitting quietly after a lunch without alcohol	<input type="checkbox"/>	<input type="checkbox"/>
4.3.8	In a car, while stopped for a few minutes in the traffic	<input type="checkbox"/>	<input type="checkbox"/>

5. (AUDIT Questionnaire) Please circle the answer that is correct for you:		(0)	(1)	(2)	(3)	(4)
5.1	How often do you have a drink containing alcohol?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.2	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 to 5	5 to 6	7 to 9	10 or more
5.3	How often do you have six or more drinks on one occasion?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.4	How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.5	How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.6	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.7	How often during the last year have you had a feeling a guilt or remorse after drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.8	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.9	Have you or someone else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year
5.10	Has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year

6. (K10 Questionnaire) Please tick the answer that is correct for you:		All of the time (5)	Most of the time (4)	Some of the time (3)	A little of the time (2)	None of the time (1)
6.1	In the past 4 weeks, about how often did you feel tired out for no good reason?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2	In the past 4 weeks, about how often did you feel nervous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3	In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4	In the past 4 weeks, about how often did you feel hopeless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5	In the past 4 weeks, about how often did you feel restless or fidgety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.6	In the past 4 weeks, about how often did you feel so restless you could not sit still?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.7	In the past 4 weeks, about how often did you feel depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.8	In the past 4 weeks, about how often did you feel that everything was an effort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.9	In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.10	In the past 4 weeks, about how often did you feel worthless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Worker's Declaration (in presence of health professional):

I, _____ (Print Name)

certify that to the best of my knowledge the above information supplied by me is true and correct

Signature of worker: _____

Signature of health professional: _____

Date: ____/____/____

IMPORTANT: For privacy reasons, the completed questionnaire MUST NOT be returned to the employer (other than to the Chief Medical Officer if requested).

1.3 Record for Health Professional

The Health Assessment Record for Health Professionals is a tool that guides the health assessment process. It provides a standard format for recording the results of the assessment, which should then be filed by the examining health professional in the worker/patient's medical history.

The form should be used as follows:

1. **Part A:** The employer completes PART A, and includes the form with the Request and Report Form (Form 1.1) and forwards to the health professional.
2. **Part B:** The health professional records the results of the clinical examination in PART B and retains the form in the worker's medical record. The form also includes provision for the worker/patient to provide signed consent for the health professional to contact their treating doctor.
3. The completed Health Assessment Record is not to be forwarded to the employer for reasons of privacy. The health professional should summarise the results in terms of fitness for duty on the Request and Report Form (Form 1.1).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (Other than the Chief Medical Officer if requested)

CONFIDENTIAL
Safety Critical Worker Health Assessment
RECORD FOR HEALTH PROFESSIONAL
(GREEN FORM)

PART A – Employer to complete

1. Worker/Applicant Details

Family Name: _____ First Names: _____

Company: _____

Location: _____

Employee No: _____ Date of birth: _____

2. Rail Organisation Details

Supervisor/contact: _____

Date of request: _____ Phone: _____ Facsimile: _____

3. Health Assessment Appointment Details

Doctor/Practice: _____

Address: _____

Phone: _____ Facsimile: _____

Appointment Date: _____ Time: _____

PART B – Examination Record – Health Professional to complete

1. Cardiovascular System:

1.1 Blood Pressure (repeat if necessary)

Systolic: mm Hg

Diastolic: mm Hg

1.2 Pulse Rate:

Regular Irregular

1.3 Heart Sounds:

Normal Abnormal

1.4 Peripheral Pulses:

Normal Abnormal

1.5 Calculation of Cardiac Risk Score (High level SCW examination only). See Cardiovascular chapter for scoring.

	Data	Score
Age/sex		
Smoker: Y/N		
Blood Pressure (systolic)		
ECG (left ventricular hypertrophy)		
Fasting cholesterol – TOTAL		
– HDL		
Fasting plasma glucose (diabetes)		
TOTAL SCORE		

(cont)....

1.5 Cardiovascular System (cont)

Other clinical considerations (refer section 4.2 Cardiovascular Disease) eg symptoms, family and past history, co-morbidity, work conditions:

2. Musculoskeletal / Neurological:

2.1 Cervical spine rotation

Normal Abnormal

2.2 Back movement

Normal Abnormal

2.3 Upper Limbs

a) Appearance: Normal Abnormal

b) Joint movements: Normal Abnormal

2.4 Lower Limbs

a) Appearance: Normal Abnormal

b) Joint movements: Normal Abnormal

2.5 Gait

Normal Abnormal

2.6 Romberg's Test (A pass requires the ability to maintain balance while standing with shoes off, feet together side by side, eyes closed and arms by sides, for thirty seconds):

Normal Abnormal

1.4 Screen-Based Equipment (SBE) Eye Examination Request and Report Form

Some Safety Critical Workers may perform duties that require them to have a Screen-Based Equipment (SBE) Eye Examination. This model form is designed for this purpose.

The form is used as follows.

1. **Part A:** The employer completes PART A and forwards to the health professional together with the SBE Eye Examination Record for Health Professionals (Form 1.5).
Note: The health professional retains the Examination Record and does not return it to the employer.
2. **Part B:** The health professional summarises the results of the examination in PART B of the form and includes recommendations for corrective lenses. The Report Form is then sent to the employer.
3. **Part C:** Should corrective lenses be prescribed specifically for SBE work, the worker/applicant has the prescription filled and signs the declaration in PART C.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION

CONFIDENTIAL

Screen-Based Equipment Eye Examination REQUEST AND REPORT FORM (YELLOW FORM)

PART A – Employer to complete

1. Worker/Applicant Details

<i>Family Name:</i>	<i>First Names:</i>
<i>Company:</i>	
<i>Location:</i>	
<i>Employee No:</i>	<i>Date of birth:</i>

2. Rail Organisation Details

<i>Supervisor/contact:</i>		
<i>Date of request:</i>	<i>Phone:</i>	<i>Facsimile:</i>
<i>Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):</i>		

3. Health Assessment Appointment Details

<i>Optometrist:</i>	
<i>Address:</i>	
<i>Phone:</i>	<i>Facsimile:</i>
<i>Appointment Date:</i>	<i>Time:</i>

PART B - Examination Record – Health Professional to complete and return to employer

Fit SBE work / does not require visual correction.	<input type="checkbox"/>
Fit SBE work / with current prescription.	<input type="checkbox"/>
Current prescription is <u>not</u> suitable for SBE work, therefore there is a need for lenses prescribed <u>specifically</u> for SBE work.	<input type="checkbox"/>
The person requires glasses prescribed specifically for SBE work, because of a visual problem that <u>only</u> arises with SBE work.	<input type="checkbox"/>
I certify I have prescribed glasses that <u>only</u> need to be used for SBE work, as this employee does not need to use glasses for other visual tasks.	<input type="checkbox"/>
<i>Provider Name:</i>	
<i>Provider No:</i>	<i>Phone:</i>
<i>Provider Signature:</i>	<i>Date:</i>
The above section must be completed by the Optometrist prior to employee re-imburement	

PART C – Worker Declaration – Worker to complete

I have obtained glasses specifically for SBE work as prescribed by this provider. Attached are:

- (a) The original itemised receipt
- (b) Health Benefit refund towards cost of glasses (if applicable)

<i>Signature:</i>	<i>Date:</i>
-------------------	--------------

1.5 Screen-Based Equipment (SBE) Eye Examination Record for Health Professional

This form guides the health professional in undertaking the SBE examination.

The form should not be returned to the employer.

The results should be summarised on the Request and Report form (Form 1.4).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (Other than the Chief Medical Officer if requested)

CONFIDENTIAL

**Screen-Based Equipment Eye Examination
RECORD FOR HEALTH PROFESSIONAL
(ORANGE FORM)**

PART A – Employer to complete

1. Worker/Applicant Details

Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:
Is a multi-coloured screen used for Safety Critical Work?	

2. Rail Organisation Details

Supervisor/contact:		
Date of request:	Phone:	Facsimile:

3. Health Assessment Appointment Details

Optometrist:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

PART B – Examination Record – Health Professional to complete and retain

	No	Yes
1. Does the worker wear glasses or contact lenses? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there a history of eye disorders? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
3. Is external eye examination normal? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Is Distance Visual Acuity (Snellen chart) normal? <i>(Fail is 2 or more errors in 6/9 line)</i> Specify _____	- Right <input type="checkbox"/>	<input type="checkbox"/>
	- Left <input type="checkbox"/>	<input type="checkbox"/>
5. Is acuity at 45cm and 70cm (Times Roman Chart or equivalent) normal? <i>(Fail is 2 or more errors of 20 words of N6 or N12 respectively)</i> Specify _____	- Right <input type="checkbox"/>	<input type="checkbox"/>
	- Left <input type="checkbox"/>	<input type="checkbox"/>
6. Is colour vision (where multi-coloured screens are used for safety critical work) normal? <i>(Ishihara test (fail is 2 or more errors/12 plates)</i> <i>If abnormal conduct Farnsworth D15 – Normal?</i> Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
7. For OHN use: Pass <input type="checkbox"/> Refer <input type="checkbox"/>		
8. Clinical Notes: <i>(In the event of an abnormality being found which requires optical correction, please consider all other optical requirements of the job to be included in the lens prescription).</i> _____ _____		

Ref: Eyesight testing of users of screen-based equipment. NOHSC 1992

2. Track Safety Health Assessment

2.1 Request and Report Form

The Request and Report Form for the Track Safety Health Assessment is used as follows:

1. **Part A:** The employer asks the worker/applicant to sign the front of the form to indicate that they have read and understood the statements concerning the health information to be provided. The employer completes PART A, encloses a copy of the Health Assessment Record for Health Professionals (Form 2.2) and forwards to the examining health professional.
2. **Part B:** Upon completion of the assessment, the health professional completes PART B of the form, retains a copy and returns the original form to the employer.

The health professional also completes the Health Assessment Record (Form 2.2) and retains it.
3. **Part C:** The employer completes PART C of the form to indicate the action taken as a result of the health assessment.
4. **Part D:** The worker/applicant completes PART D of the form to indicate agreement to the portability of the assessment.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION

CONFIDENTIAL

Track Safety Health Assessment REQUEST AND REPORT FORM (MAUVE FORM)

IMPORTANT INFORMATION

To the Worker/Applicant

- You are required to attend a health assessment as a condition of your employment, to assess your fitness for undertaking rail safety work.
- The health assessment must be completed by (date)_____ in order to ensure that you are able to carry out normal duties.
- Please ensure that you: take to the appointment: glasses, hearing aid or any other aids required for rail safety work; all medication that you are currently taking and photo identification.
- The examining health professional may ask your permission to speak to your GP.
- You may be required to attend for audiometry test of drug screen before attending the health assessment.
- If the examining health professional finds or suspects something is wrong with your health that you did not know about, they will ask permission to inform your own doctor. The examining health professional will not treat any medical condition but will give you a letter to take to your own health professional for treatment.
- If the health professional finds that you do not meet all relevant medical criteria your supervisor at the rail organisation(s) will discuss the appropriate action to be taken. This may include modification to the duties that you undertake for that railway organisation or scheduling of a further review, tests or specialist referral

To the Employer

- Please complete all relevant details in PART A of the form including:
 - Personal details of the worker/applicant
 - Appointment details if appropriate
 - Description of the rail safety duties to be performed by the worker/applicant
 - Type of assessment requested.
- Upon receipt of the completed Health Assessment Report from the examining health professional, please complete Section C indicating the action taken, and ask employee to complete Part D as required.

To the Health Professional

- You are requested to conduct a health assessment to assess the worker's/applicant's fitness for rail safety work in accordance with the details provided in PART A of this form and in accordance with Volume 2 of the *National Standard for Health Assessment of Rail safety Workers*.
- Please perform the assessment, complete PART B of this form and return to worker's supervisor according to the instructions in PART A.
- Should the worker be assessed Unfit for Duty please contact the employer immediately so that appropriate rostering changes may be made.
- Details of the assessment should be recorded on the enclosed Track Safety Health Assessment Record form. This record is confidential and should be retained by you, not returned to the employer. The employer's chief medical officer may contact you for more information regarding the worker's condition.
- For more detailed information about the conduct of health assessments for rail safety workers see Volume 2 of the *National Standard for Health Assessment of Rail safety Workers*.

To the Worker: DISCLOSURE OF HEALTH INFORMATION – PLEASE READ CAREFULLY AND SIGN TO INDICATE YOUR UNDERSTANDING OF HOW YOUR HEALTH INFORMATION IS REPORTED, STORED AND ACESSED

The details of your health assessment will remain confidential and will only be reported to your employer in terms of your fitness for duty. The examining health professional retains all detailed medical papers including your test results and the completed record of clinical findings. The health professional sends only the completed Request and Report form directly to the referring railway organisation indicating your fitness or otherwise for duty. Where your employer utilises the services of a Chief Medical Officer (CMO), the CMO may request a copy of the examining health professional's report to aid in the management of your health in relation to your work. The CMO must maintain the confidentiality of the records and ensure they are not made available to, or discussed with any other person within the rail organisation Other than the above, no information will be disclosed to the employer or any other person or organisation without your written permission, except where:

- a notifiable disease is diagnosed which must, by law, be reported to the State authorities
- a report is subpoenaed by a court of law
- the Secretary to the Department of Infrastructure (or another person) is required to conduct an inquiry into a railway accident or incident.

You have the right to access your health records including those held by the authorised health professional and the CMO (if relevant) and the reports held by the rail organisation.

WORKER'S DECLARATION

I, _____ (Print Name)

certify that I have read and understood the above statement concerning the Health Information provided herein.

Signature: _____ Date: _____

PART A– Employer to complete		
1. Worker/Applicant Details		
Family Name:	First Names:	
Company:		
Location:		
Employee No:	Date of birth:	
2. Rail Organisation Details		
Supervisor/contact:		
Date of request:	Phone:	Facsimile:
Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):		
3. Health Assessment Appointment Details		
Health professional:		
Address:		
Phone:	Facsimile:	
Appointment Date:	Time:	
4. Description of Worker's Duties (or attach Job Description or Task Risk Assessment)		
5. Type of Assessment requested		
<input type="checkbox"/> Pre-placement / Change of Risk Category Health Assessment <input type="checkbox"/> Periodic Health Assessment <input type="checkbox"/> Triggered Health Assessment (specify reason): _____ <input type="checkbox"/> Drug Screen / Review results <input type="checkbox"/> Screen-Based Equipment Examination <input type="checkbox"/> Other (specify): _____		
6. Tests Ordered		
<input type="checkbox"/> Drug Screen (Preemployment / Change of Grade only) Location (if differs from Health Assessment Appointment details): _____ _____		
<input type="checkbox"/> Audiometry Location (if differs from Health Assessment Appointment details): _____ _____		

Worker/Applicant Name:		
Employee No.	Date of birth:	Date of Request:

PART B – Health Professional to complete	
<input type="checkbox"/> I have sighted the worker's Rail Safety Worker Card Number _____ OR <input type="checkbox"/> I have sighted the worker's/applicant's photo ID (eg driver's licence, passport) Number _____ I certify that I have examined the worker/applicant named in accordance with the medical standards contained in the <i>National Standard for Health Assessment of Rail Safety Workers, Volume 2: Assessment Procedures and Medical Criteria</i> and in my opinion the worker/applicant is (tick appropriate box):	
<input type="checkbox"/> Fit for Duty – Meets all relevant medical criteria.	<input type="checkbox"/> Local doctor referral <input type="checkbox"/> Conditional on corrective lenses <input type="checkbox"/> Conditional on hearing aid <input type="checkbox"/> Other condition (specify): _____ _____
<input type="checkbox"/> Fit for Duty Subject to Review – Does not meet all medical criteria, but could perform rail safety work if the condition is sufficiently under control and worker is more frequently reviewed than prescribed under periodic review.	I recommend: <input type="checkbox"/> Review at this practice DATE: <input type="text"/> <input type="checkbox"/> Specialist referral <input type="checkbox"/> Local doctor referral <input type="checkbox"/> Company Medical Officer referral <input type="checkbox"/> Laboratory tests This certificate is valid until: <input type="text"/>
<input type="checkbox"/> Fit for Duty Subject to Job Modification – Does not meet all medical criteria, but could perform rail safety work if suitable modifications were made to the duties.	I recommend the following job modifications: _____ _____ _____
<input type="checkbox"/> Temporarily Unfit for Duty Subject to Review – Does not meet all medical criteria and cannot perform current rail safety tasks but may perform alternative non-safety tasks. May return to full duty pending improvement in condition, response to treatment, confirmed diagnosis of undifferentiated illness.	I recommend the following in terms of management and review: _____ _____ _____
<input type="checkbox"/> Permanently Unfit for Duty – Does not meet the medical criteria and cannot perform the job in the future.	I recommend the following in terms of management and review: _____ _____ _____

Drug Screen Results (Pre-placement or Change of Grade/Risk Category only):

Health Professional Details (stamp acceptable)		
Name:	Phone:	Facsimile:
Practice address:		
Signature:	Date of Assessment:	

PART C – Employer to complete on receipt of Assessment Report
Action taken as a result of Health Assessment: <input type="checkbox"/> Job modification (details): _____ <input type="checkbox"/> Triggered review (indicate period): _____ <input type="checkbox"/> Periodic Health Assessment scheduled (details): _____ <input type="checkbox"/> Redeployment (details): _____ <input type="checkbox"/> Drug Assessment (details): _____

Part D – Worker to complete regarding portability of assessment result
I, _____ (Print Name) give permission for this health assessment to be forwarded to another rail organisation as confirmation of fitness for duty. Signature: _____ Date: ____/____/____ 58 Safety Critical Worker Request and Report Form (Page 3 of 3) May 2004

2.2 Record for Health Professional

The Track Safety Health Assessment Record for Health Professionals is a tool to help guide authorised health professionals with the health assessment process.

It provides a standard format for recording the results of the health assessment which should then be filed in the worker's medical history.

The completed Health Assessment Record is not to be forwarded to the employer for reasons of privacy.

The health professional should summarise the result in terms of fitness for duty on the Request and Report Form (Form 2.1).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION
(Other than the Chief Medical Officer if requested)

CONFIDENTIAL

Track Safety Health Assessment RECORD FOR HEALTH PROFESSIONAL (WHITE FORM)

PART A – Employer to complete

1. Worker/Applicant Details		
<i>Family Name:</i>	<i>First Names:</i>	
<i>Company:</i>		
<i>Location:</i>		
<i>Employee No:</i>	<i>Date of birth:</i>	
2. Rail Organisation Details		
<i>Supervisor/contact:</i>		
<i>Date of request:</i>	<i>Phone:</i>	<i>Facsimile:</i>
3. Health Assessment Appointment Details		
<i>Doctor/Practice:</i>		
<i>Address:</i>		
<i>Phone:</i>	<i>Facsimile:</i>	
<i>Appointment Date:</i>	<i>Time:</i>	

PART B – Examination Record – Health Professional to complete

<p>1. Medical History (<i>tick appropriate box</i>)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">No</th> <th style="width: 10%; text-align: center;">Yes</th> </tr> </thead> <tbody> <tr> <td>1.1 Do you have any serious illnesses?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>1.2 Do you have any difficulty of vision?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>1.3 Do you have any difficulty of hearing?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>1.4 Do you have any difficulty walking?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		No	Yes	1.1 Do you have any serious illnesses?	<input type="checkbox"/>	<input type="checkbox"/>	1.2 Do you have any difficulty of vision?	<input type="checkbox"/>	<input type="checkbox"/>	1.3 Do you have any difficulty of hearing?	<input type="checkbox"/>	<input type="checkbox"/>	1.4 Do you have any difficulty walking?	<input type="checkbox"/>	<input type="checkbox"/>	<p>2. Vision:</p> <p>2.1 Visual Acuity</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Uncorrected</th> <th colspan="2">Corrected</th> </tr> <tr> <th>R</th> <th>L</th> <th>R</th> <th>L</th> </tr> </thead> <tbody> <tr> <td>6/</td> <td>6/</td> <td>6/</td> <td>6/</td> </tr> </tbody> </table> <p>Are contact lenses worn? No <input type="checkbox"/> Yes <input type="checkbox"/></p> <p>2.2 Visual Fields (Confrontation to each eye): Normal <input type="checkbox"/> Abnormal <input type="checkbox"/></p>	Uncorrected		Corrected		R	L	R	L	6/	6/	6/	6/
	No	Yes																										
1.1 Do you have any serious illnesses?	<input type="checkbox"/>	<input type="checkbox"/>																										
1.2 Do you have any difficulty of vision?	<input type="checkbox"/>	<input type="checkbox"/>																										
1.3 Do you have any difficulty of hearing?	<input type="checkbox"/>	<input type="checkbox"/>																										
1.4 Do you have any difficulty walking?	<input type="checkbox"/>	<input type="checkbox"/>																										
Uncorrected		Corrected																										
R	L	R	L																									
6/	6/	6/	6/																									

3. Musculoskeletal / Neurological:

3.1 Cervical spine rotation
 Normal Abnormal

3.2 Back movement
 Normal Abnormal

3.3 Upper Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

3.4 Lower Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

3.5 Gait Normal Abnormal

3.6 Romberg's Test (A pass requires the ability to maintain balance while standing with shoes off, feet together side by side, eyes closed and arms by sides, for thirty seconds):
 Normal Abnormal

4. Hearing (Audiometry results):

	0.5 kHz	1.0 kHz	2.0 kHz
Right			
Left			

5. Drug Screen (Pre-placement or Change of Grade/Risk Category only):

Comment on any relevant findings detected in the Health Assessment, making reference to the requirements of the standard.

Patient Consent (if required to consult with GP or other treating doctor)
 I, _____ print name

give do not give (**please indicate**) permission for the examining health professional to contact my treating doctor to discuss or clarify information relating to my current health status

Signature of worker/applicant: _____

Name of Doctor: _____

Phone: _____

IMPORTANT: For privacy reasons, the completed Health Assessment Record must not be returned to the employer. It should be retained in the patient record.

3. Task Risk Assessment

The Task Risk Assessment is a template form designed to guide the process of risk assessment of rail safety tasks and serve as a documentation of the conclusions of task assessment.

The completed form is recommended as an inclusion with the information provided to the examining health professional and it supports a clearer understanding of the tasks performed by the worker and the matching health requirements.

A detailed explanation of the processes involved in health risk assessment and completion of the Task Risk Assessment Template is included in the *Guideline for Health Risk Management*.

Rail Safety Worker Risk Assessment Template

RAIL SAFETY WORKER TASK:		
ASSESSMENT RECORD:		
WORKSITE INSPECTION	Date:	Completed by:
JOB DESCRIPTION	Date:	Reviewed by:
CONTEXT:		
ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:	
	<i>Health attributes relating to the safety of the rail network:</i> <i>Health attributes relating to the safety of the rail worker (OHS):</i>	
ENGINEERING AND PROCEDURAL ENVIRONMENT:		
RISK ANALYSIS AND CATEGORISATION:		CATEGORY
HEALTH ASSESSMENT REQUIREMENTS:		

COMMENTS AND/OR INQUIRIES

The National Transport Commission invites comments on and/or and inquires about the *National Standard for Health Assessment of Rail Safety Workers*.

National Transport Commission
Level 15/628 Bourke Street
MELBOURNE VIC 3000

Email: ntc@ntc.gov.au

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The Project Team responsible for researching and developing the draft National Standard was:

Jan Powning	National Project Manager and Manager Safety Policy and Planning, DOI Victoria
Dr Bruce Hocking	FAFOM. FAFPHM. FRACGP. Occupational Physician
Fiona Landgren	Principal Consultant, Communicating for Health
Keith Wheatley	Project Manager, NTC

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Dr Keith Adam	Occupational Physician and Chief Medical Advisor, Queensland Rail
Bruce Anderson	Safety and Quality Manager, Works Infrastructure
Rob Blackwell	Systems Manager, Works Infrastructure (EDI)
Graeme Breydon	Chairman, Puffing Billy Railway
Rob Burrows	Director, Office of Rail Safety, Dept of Planning and Infrastructure
Brian Busch	Manager Safety, Australian Rail Track Corporation
Alex Claassens	Assistant National Secretary, Rail Tram and Bus Union (Loco Division)
Dr Michael Couch	Occupational Physician, NSW
Kent Donaldson	Exec Director Transport Safety and Rail Safety Regulation, Ministry of Transport NSW
Dr Tim Drew	Chief Medical Consultant to TransAdelaide
David Edwards	Executive Manager Safety, Pacific National
Greg Ford	Director Rail Safety, Queensland Transport
Dr John Glastonbury	Executive Member, Heritage Rail Australia (NSW) and Chairman 3801 Limited
Allan Gordon	Superintendent Safeworking and Training, Pilbara Rail
Ian Grenfell	President, Tasmanian Association of Tourist Railways
Catherine Herriman	Assistant Director Safety Strategy, Ministry of Transport
Bryan Homann	Council of Historic Railways and Tramways SA and Pichi Richi Railway
Caroline Hudson	National Manager Human Resources, Australian Railroad Group
Andrew Killingworth	Rail Transport Museum, (Tourist and Heritage Rail) NSW
Dr Andrew Marsden	Chief Medical Consultant to Westrail
Marnie O'Brien	Manager Injury Management Centre, Rail Infrastructure Corporation
Dr Graeme Peel	Occupational Physician, QANTAS
Adrian Ponton	Manager System Safety, Freight Australia
Philippa Rogers	Secretary, Association of Rail Preservation Groups of WA Inc
Dr Paul Rollason	President, Association of Tourist Railways Queensland
John Shalders	Code of Practice Manager, Australasian Rail Association
Graeme Silvester	Manager Safety Systems and Accreditation, Queensland Rail
Dr Tim Stewart	Medical Advisor to TasRail
Craig Tooke	Executive Officer, Council of Tramway Museums Australasia
Dr Stuart Turnbull	Medical Practitioner Occupational Medicine, Bayside Trains

NATIONAL STANDARD FOR HEALTH ASSESSMENT OF RAIL SAFETY WORKERS

**VOLUME 2:
ASSESSMENT PROCEDURES AND
MEDICAL CRITERIA**

May 2004

**Prepared by
National Transport Commission**

National Transport Commission

**National Standard for Health Assessment of Rail Safety Workers
Volume 2: Assessment Procedures and Medical Criteria**

Report prepared by:
National Transport Commission

FOREWORD

This draft National Standard for Health Assessment for Rail Safety Workers has been developed under the auspices of the National Transport Commission (NRTC) as part of the Work Program approved by the Australian Transport Council. Recognising the extent of work already undertaken within Victoria on health standards for rail safety workers, the Victorian Department of Infrastructure has acted as the lead agency in the development of the national standard.

A nationally agreed and consistently applied Health Assessment Standard will ensure uniformly high safety standards apply across the whole industry. This will contribute to seamless rail operations allowing rail organisations to operate more efficiently within and across State and Territory boundaries. The National Standard will also benefit rail safety workers by providing for equity and portability of medical certification.

The draft Standard has been developed from the Victorian Code of Practice for Health Assessment of Rail Safety Workers. It adopts a risk management approach and reflects contemporary medical knowledge as well as changes in societal values. It is the result of extensive research and input from a very wide range of industry stakeholders.

Recent rail accident investigations in New South Wales and Victoria have highlighted various deficiencies in the quality and/or the implementation of current medical standards. In addition, there is a need to ensure that medical standards used by industry keep pace with advances in medical knowledge or current understanding of the impact of certain health conditions on safe working performance.

These considerations are reflected in the draft National Standard. Contemporary anti-discrimination and privacy principles now legislated in all Australian states, and Territories have also been taken into account.

Except where it reflects a legislative provision, the draft National Standard is a non-prescriptive, performance-based standard. It consists of two volumes:

Volume 1 - Management Systems

Volume 1 is intended for use by rail organisations. It outlines the responsibilities of rail organisations, workers and health professionals and describes the management systems for health risk management including scheduling, communication, records management and the appointment of authorised health professionals. It contains provisions for a risk management approach to monitoring rail safety worker health and fitness, including a framework for analysing and categorising risks associated with rail safety tasks and assigning levels of health assessments accordingly.

Volume 2 – Assessment Procedures & Medical Criteria

Volume 2 is for use by authorised health professionals. It outlines the procedures for conducting health assessments and provides the medical criteria for judging fitness for rail safety duty.

The Standard is supported by a Guideline for Health Risk Management. This Guideline is not formally part of the Standard, but provides practical guidance and examples to assist rail organisations to perform health risk assessments for rail safety workers.

Once finalised and approved by the ATC, it is expected that each State and Territory will adopt the National Standard in a manner consistent with their specific legislative provisions and the principle of co-regulation which underpins the rail safety regulatory regimes in each jurisdiction. Options for the adoption of the Standard are canvassed in the Preliminary Regulatory Impact Statement. These options will be considered more thoroughly within the context of a separate project being run by the NTC dealing with the Co-regulatory Framework in the Australian rail industry.

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Vol 2: Assessment Procedures and Medical Criteria, May 2004

PART 1: ASSESSMENT REQUIREMENTS AND PROCEDURES

1. Overview of the Standard

1.1 Structure

The *National Standard for Health Assessment of Rail Safety Workers* comprises two volumes.

Volume 1: Management Systems

Volume 1 provides guidance for accredited rail organisations in establishing appropriate management systems. It outlines the responsibilities of rail organisations, workers and health professionals. It also describes systems for health risk management including approaches to risk assessment, scheduling of assessments, communication, records management and the appointment of authorised health professionals.

Volume 2: Assessment Procedures and Medical Criteria

Volume 2 outlines the procedures for conducting health assessments and provides the medical criteria for judging fitness for duty.

It is a practical reference for health professionals authorised by accredited rail organisations to conduct health assessments of rail safety workers and provides:

- clear medical criteria for rail safety worker capability based on available evidence and expert medical opinion;
- general guidelines for managing rail safety workers with respect to their fitness for duty;
- guidance for reporting to accredited rail organisations, including model forms.

Volume 2 also summarises from Volume 1:

- the system of health assessments applied by accredited rail organisations;
- interfaces with other health, safety and human resources initiatives;
- risk categorisation of rail safety tasks and how the health assessment requirements reflect the risks;
- types and frequencies of assessments;
- criteria by which health professionals are authorised by accredited rail organisations.

Volume 2 may also be used by specialist health professionals who may be consulted about a worker's health assessment, for example, optometrists, psychologists or occupational therapists.

1.2. Purpose

The Standard provides practical guidance for accredited rail organisations to meet their legal obligations under rail safety legislation to monitor the health and fitness of rail safety workers.

This responsibility is an essential part of the rail safety management systems aimed at minimising risks to protect the safety of:

- the public;
- rail safety workers and their fellow workers; and
- the environment.

1.3 Application and Scope

Volumes 1 and 2 of the *National Standard for Health Assessment of Rail Safety Workers* apply to all rail organisations accredited under relevant transport legislation.

The Standard is intended for use to assess the health and fitness of potential and existing workers to undertake rail safety work as defined in relevant transport legislation.

Whilst the Standard does assess individual worker safety on and about the track, it does not cover other occupational health and safety matters such as occupational exposure. It also does not cover fatigue management or drug and alcohol screening outside the pre-placement health assessment. The employer must address such issues and integrate them with the health assessments as appropriate.

1.4 How to use the Standard

Volume 2 of the Standard outlines the information necessary for conducting health assessments of rail safety workers. It comprises five parts:

PART 1 – Health Assessment Requirements and Procedures

Part 1 summarises the management systems for health assessments of rail safety workers contained in Volume 1 of the Standard (Volume 1 should be referred to for details). It identifies the categories of rail safety workers to undergo assessment as well as the nature and frequency of the assessments and the assessment procedures.

It also outlines the system of authorisation for health professionals conducting assessments and the roles and responsibilities of the employer, worker and health professional.

It is essential that authorised health professional is familiar with the content of Part 1.

PART 2 – Medical Criteria

Part 2 details the medical criteria for assessing fitness for duty. It comprises:

- Part 2A, medical criteria for Safety Critical Workers (Categories 1 and 2);
- Part 2B, medical criteria for Around the Track Personnel (ATTP) who work in an Uncontrolled Environment (Category 3).

The medical criteria in Part 2 are presented in chapters corresponding to body system or disease categories and are arranged alphabetically.

The medical standards provide a core assessment relevant to rail safety work, however specific details may vary between organisations. Matters such as colour vision or musculoskeletal requirements, for example, may be varied appropriate to the risks assessed in an organisation by a specialist in occupational medicine and with full documentation. Specific questionnaires used in the health assessment, such as the Epworth Sleepiness Scale or K10, are validated assessment tools and must not be varied.

PART 3 – Case Studies

Part 3 contains a series of case studies that help illustrate rail safety tasks, the health requirements of those tasks, the process of health assessment and the subsequent management.

PART 4 – Model Forms

Part 4 includes the model forms that may be used in administering the health assessment system. The rail organisation will provide their own forms based on these model forms.

1.5. Interfaces with Other Health and Human Resources Programs

Health assessments are one aspect of an integrated system aimed at achieving safety on the rail network. The assessments may interface with a range of other health and human resources programs, some of which have a legislative base.

The authorised health professional will need to have some understanding of how these initiatives interface in practice. It is the responsibility of the rail organisation to ensure the health professional is kept up to date about the organisation's programs, policies and procedures.

The interfaces with relevant programs are illustrated in Diagram 1.

2. Appointing and Authorising Health Professionals

2.1 Who May Perform Health Assessments

The accredited rail organisation should appoint a suitably qualified and competent health professional to conduct the assessments of rail safety workers (an authorised health professional).

Safety Critical Worker Health Assessments must be performed by a medical practitioner. Track Safety Health Assessments may be performed by a nurse with suitable occupational health qualifications.

Practical on-site tests, such as tests for colour vision, hearing or musculoskeletal capacity, may be performed by a person with appropriate skills and experience. Such a person is not required to be health trained but should work in conjunction with the authorised health professional.

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Diagram 1. Interfacing Health and Human Resources Programs



2.2 Criteria for Appointing Authorised Health Professionals

The rail organisation should ensure the authorised health professional meets the selection criteria in Table 1 as a basis for appointment.

The selection criteria focus on the health professional's knowledge and understanding of the rail occupational environment, the risks associated with rail safety work and the corresponding clinical tests to be applied.

Rail organisation personnel are well equipped to make such an assessment. The criteria do not require the rail organisation to assess the health professional's medical knowledge.

The rail organisation may offer assistance to the health professional to meet the criteria. This may be done by providing them with relevant information, a briefing, and/or a site visit and a copy of *Volume 2: Assessment Procedures and Medical Criteria*.

3. Privacy Laws

In administering the rail safety worker health assessments rail organisations and examining health professionals must ensure they comply with the Privacy Principles

contained in privacy legislation and that health records are managed and stored in line with the relevant Health Records legislation.

3.1 Privacy Policy

The health records and privacy legislation of each jurisdiction may include a requirement for organisations to have a privacy policy for health information. This includes provision for ensuring workers are clearly informed about:

- the purpose for collecting and storing the health information;
- what information will be stored and where;
- the fact that they can access it; and
- to whom the information may be disclosed.

3.2 Primary Purpose

Only information justifiably necessary to assess fitness for rail safety work should be collected.

Information must only be disclosed for the primary purpose for which it was collected, that is for assessing fitness for rail safety duty.

The rail organisation cannot request an examination outside the health requirements

Table 1. Criteria for Selection of Authorised Health Professionals

Safety Critical Workers (Categories 1 and 2) Health Assessments	Around the Track Personnel (Category 3) Health Assessments
<p>Qualifications and Experience: The health professional must have a qualification in medicine and should have an interest or experience in occupational medicine.</p>	<p>Qualifications and Experience: The health professional should have a qualification in medicine or a nursing qualification with a postgraduate qualification in occupational health nursing. For a medical professional, interest and experience in occupational medicine is desirable.</p>
<p>Rail Industry Knowledge: The health professional should demonstrate understanding of the rail industry environment including work performed and risks involved.</p>	<p>Rail Industry Knowledge: The health professional should demonstrate understanding of the rail industry environment including work performed and risks involved.</p>
<p>The Standard: The health professional should demonstrate familiarity with the National Standard for Health Assessment of Rail Safety Workers and a working knowledge of Volume 2 of the Standard, <i>Assessment Procedures and Medical Criteria</i>, including:</p> <ul style="list-style-type: none"> • Appreciation of the role of health assessments in ensuring rail safety. • Familiarity with the risk management approach used to identify the level of health assessment required. • Familiarity with the tasks in rail operations and with major tasks of Safety Critical Workers. • Knowledge of rail safety worker risk categories and the rationale for health assessments applied. • Knowledge of and ability to perform the Safety Critical Worker Health Assessment. • Understanding of requirements and reporting options for fitness for rail safety duty. • Knowledge of the assessment's administrative requirements, including form completion and record keeping. • Understanding of ethical and legal obligations and the ability to conduct health assessments accordingly, including appropriate communication with the worker and the employer. • Understanding of ethical issues in relationships with the treating doctor/GP. 	<p>The Standard: The health professional should demonstrate familiarity with the National Standard for Health Assessment of Rail Safety Workers and a working knowledge of Volume 2 of the Standard, <i>Assessment Procedures and Medical Criteria</i>, including:</p> <ul style="list-style-type: none"> • Appreciation of the role of health assessments in rail safety. • Familiarity with the risk management approach used to identify the level of health assessment requirements. • Familiarity with the tasks in rail operation and experience of major tasks of the Around the Track Personnel. • Knowledge of rail safety worker categories of and the rationale for health assessments applied. • Knowledge of and ability to perform the Track Safety Health Assessment. • Understanding of requirements and reporting options for fitness for rail safety duty. • Knowledge of the assessment's administrative requirements, including form completion and record keeping. • Understanding of ethical and legal obligations and the ability to conduct health assessments accordingly, including appropriate communication with the worker and the employer. • Understanding of ethical issues in relationships with the treating doctor/GP.
<p>Interfacing Policies and Programs. The health professional should be able to demonstrate awareness of legislation, policies or programs that might interface with or affect the performance of the health assessment for example, drug and alcohol policy, critical incident management programs, anti-discrimination legislation and privacy legislation.</p>	

of the worker's job and cannot provide the examining health professional with information that is not relevant to the health assessment for that job.

3.3 Information Disclosure

Health information should be reported on a need to know basis from a doctor to a rail organisation.

The authorised health professional must not disclose the worker's clinical records to the rail organisation. The rail organisation needs to know fitness for duties (or any restrictions), not the underlying medical conditions.

Worker/patient consent must be obtained to disclose any health information to a third party unless permitted by law as with workers compensation. However a doctor is not prohibited from giving the rail organisation general advice about fitness for duty provided he or she does not refer to the worker's medical details.

Where an Authorised Health Professional seeks information from a worker's general practitioner or treating doctor to clarify the worker's current health status, such communication should occur with the consent of the worker and should be limited to health issues that impact on rail safety.

Where a rail organisation employs the services of a Chief Medical Officer (CMO), the CMO may request a copy of the Health Assessment Record (Green Form), the Safety Critical Worker Health Questionnaire (Pink Form) or other supporting clinical records from the authorised health professional in order to ensure consistency and quality of health assessments for rail safety workers in the organisation, or to assist management of a particular worker. Where such records are accessed or retained by the CMO their confidentiality must be assured and systems must be in place to ensure other personnel within the rail organisation do not access records. This is consistent with privacy provisions.

3.4 Maintenance and Storage of Information

Information should be kept accurate, up to date and protected from loss and unauthorised use.

For continuity of records, a rail organisation may establish a repository for rail safety worker health records provided that such records are accessible only by authorised health professionals and the Chief Medical Officer.

Records may be scanned and kept in electronic form. The worker's signature on the completed Safety Critical Worker Health Questionnaire is legally valid after scanning.

3.5 Interstate Considerations

Where workers work across State or Territory boundaries, information should only be transferred to other States or Territories where privacy laws are similar.

4. Anti-discrimination Laws

Anti-discrimination legislative requirements must be considered by rail organisations and health professionals when implementing health assessments.

These requirements include:

- Health assessments must focus on inherent job requirements, not peripheral requirements. The risk assessment must guide the health assessment process.
- For certain conditions it may be necessary to demonstrate that the condition prevents the worker from performing the rail safety task, eg through practical tests for hearing, colour vision or musculoskeletal capacity.
- Any required tests should be valid and the criteria must have a clear rationale. That is, it must be a good predictor of serious illness regarding rail safety.
- If a standard must be met at entry, it should be maintained during employment and examined for periodically.

- If a criterion is not met, an employer should consider reasonable adjustments to the workplace to accommodate the disability.

While public safety considerations take precedence over anti-discrimination, this does not exempt a rail organisation from giving close consideration to discrimination issues.

5. Responsibilities and Relationships

The successful implementation of health assessments for rail safety workers relies on a clear understanding of the various responsibilities as well as effective communication between the individuals/groups involved. Such communication, including management of health records, should be consistent with the provisions of relevant privacy and health records legislation as discussed in the previous section.

Following is a summary of the responsibilities of the key parties and their interrelationships. Diagram 2 illustrates these relationships and the flow of information that should take place in conducting rail safety worker health assessments.

5.1 Accredited Rail Organisations

The accredited rail organisation has a legal responsibility under relevant transport legislation to ensure systems are in place to protect the safety of the public and the network. This includes a responsibility to ensure that the health and fitness of workers is monitored and does not jeopardise rail safety.

As an employer, the accredited rail organisation has a duty of care under occupational health and safety legislation to the safety of its workers.

The final decision regarding fitness for duty or any restrictions rests with the employer and involves consideration of the advice of health professionals as well as anti-discrimination and retraining issues.

Where possible, to meet anti-discrimination requirements, the employer should accommodate the limitations of the worker's

capabilities due to health issues through strategies such as job modifications, alternative or supervised duties as appropriate.

Accredited rail organisations also have a responsibility to ensure privacy principles are maintained with respect to worker's personal and health information.

If employing contractors, the employer is required to inform them of their obligations to ensure appropriate health assessment systems are in place for their workers.

5.2 Contractors

An accredited rail organisation is responsible for managing its contractors and ensuring that contractors meet their responsibilities for rail safety worker health assessments.

5.3 Rail Safety Workers

Rail safety workers have a duty of care to themselves and others. Once employed, they should know their job, its implications for rail network and public safety and the importance of their health and fitness to rail safety.

They have a responsibility to notify the employer of any temporary or ongoing health condition or change in health status that is likely to affect their ability to undertake their work safely. They must also comply with any review requirements of a health assessment.

Rail safety workers are also responsible for advising their employer of impairment due to medication.

Rail safety workers may request referral to an authorised health professional if they are concerned about their ability to perform their work safely due to health reasons.

If rail safety workers work for more than one organisation they have a responsibility to ensure each employer is advised about conditions that may affect their safe working ability.

5.4 Health Professionals

Health professionals appointed and authorised by an accredited rail organisation should have demonstrated that they have relevant competence and understanding of

the rail environment to conduct health assessments for rail safety work.

The authorised health professionals should conduct health assessments in line with the procedures contained in this Volume 2: *Assessment Procedures and Medical Criteria*.

The relationship between the health professional and the worker/patient is governed by the ethics of the relevant health profession and by privacy laws. The relationship differs from the usual doctor-patient relationship because of the involvement of a third party, the employer. The health professional should not provide personal or medical information to the employer, only information regarding work capacity.

The final decision regarding fitness for duty or any restrictions rests with the employer and may involve consideration of anti-discrimination and retraining issues.

The authorised health professional should liaise with the worker's general practitioner and treating specialists where appropriate to clarify information relating to the worker's current health status. Such communication should occur with the consent of the worker and should be limited to health issues that impact on rail safety.

The ongoing treatment and management of medical conditions should be the responsibility of the worker's general practitioner.

Authorised health professionals should communicate and consult with the general practitioner and other relevant providers to ensure the effective management of the worker's health.

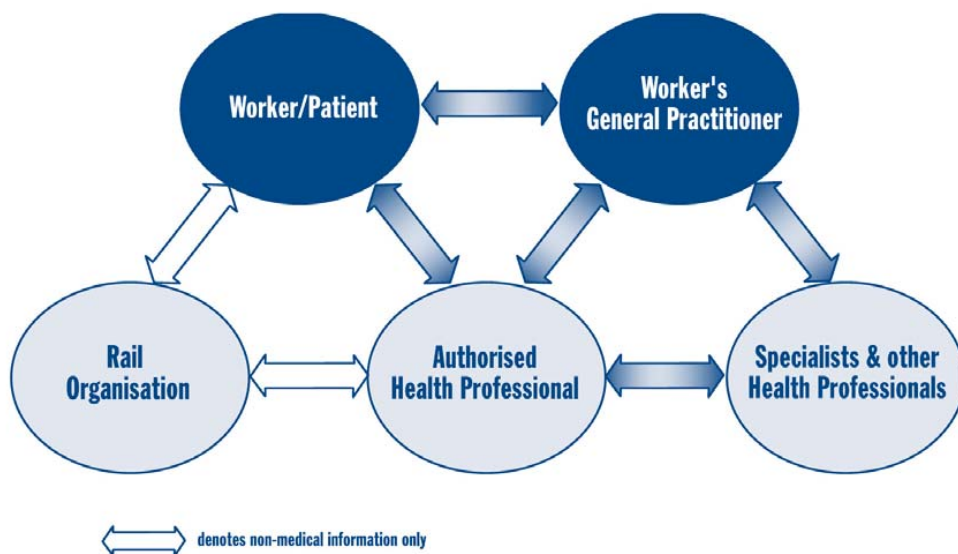
The authorised health professional may also liaise with the rail organisation's Chief Medical Officer (CMO), if the organisation has one. The CMO may access worker's medical records but is bound by privacy considerations and may not communicate medical information to the rail organisation.

6. Workers Who Require a Health Assessment

Workers who carry out rail safety work for accredited rail organisations require a health assessment to determine their health and fitness for duty.

The definition of rail safety worker is determined by legislation in each jurisdiction but is likely to include an employee, contractor, subcontractor or volunteer performing work on a railway or tramway system:

Diagram 2. Relationships in the Implementation of Health Assessments for Rail Safety Workers



- as a driver, second person, trainee driver, guard, conductor, supervisor, observer or authorised officer;
- as a signal operator, shunter or person who performs other work relating to the movement of trains or trams;
- in repairs, maintenance, or upgrade of railway infrastructure, including for rolling stock or associated works or equipment;
- in construction or as a look out for construction or maintenance; and
- any other work that may be included by regulation.

6.1 Categorisation of Rail Safety Workers According to Risk

The requirements for health assessments of rail safety workers are determined by a risk management approach.

The methodology for this approach is summarised in Diagram 3. The steps are explained in detail in the *Guideline for Health Risk Management* and examples are provided.

The employer is responsible for analysing the risks associated with the rail safety work performed in their operations and for assigning a risk category to each rail safety worker.

The risk management approach aims to ensure the level of health assessment conducted is commensurate with the risk associated with the tasks performed by the rail safety worker. As the work environment significantly determines the skills required and risk involved, a risk analysis should form the basis of all rail safety worker health assessment decisions.

The key criterion applied in the risk analysis is the extent to which the workers' health, both physical and psychological, may impact on the safety of the rail network and the public. The nature of the task and the engineering controls available are both considered in the risk assessment. This has led to the establishment of two main risk categories:

- Safety Critical Work
- Non-Safety Critical Work

These two main categories are further divided into four risk categories overall. They help to define broad physical and psychological health attributes needed for particular rail safety tasks. The system also allows for the identification of task-specific health attributes such as levels of colour vision.

6.2 Safety Critical Workers

Safety Critical Workers are defined as those workers whose action or inaction, due to ill health, may lead directly to a serious incident affecting the rail network.

The health and fitness of these workers, especially their vigilance and attentiveness to their job, is crucial and they are therefore the main focus of this Standard.

Safety Critical Workers' tasks are those that might affect the safety of the public and the network and are distinguished from tasks that affect only individual safety. They are also distinguished from tasks where skill has the main bearing on rail safety and ill health is a lesser consideration.

There are two Safety Critical Worker risk categories.

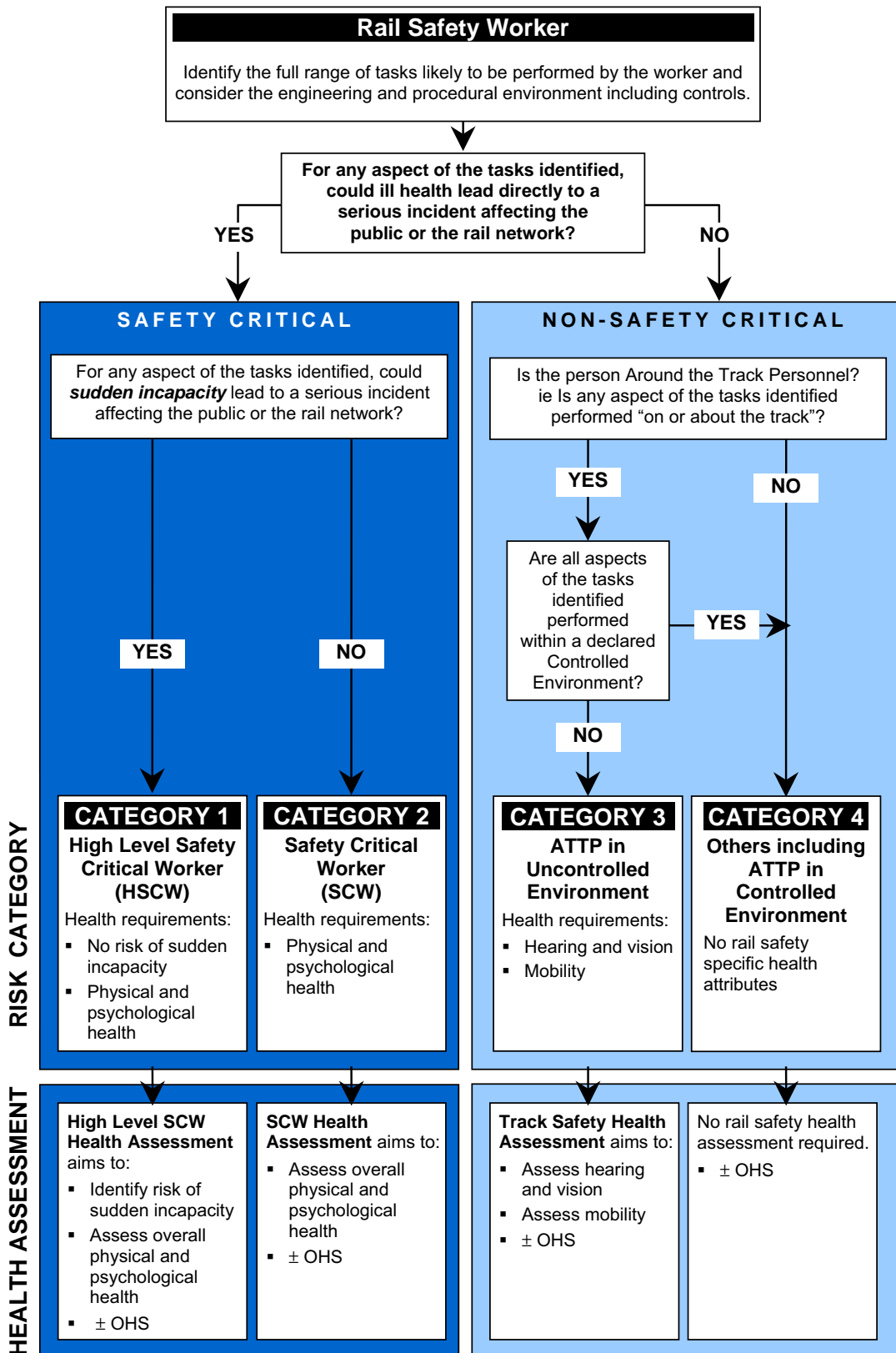
High Level Safety Critical Worker (Category 1)

High Level Safety Critical tasks are those where a serious incident affecting the public or the network could result from **sudden worker incapacity** such as heart attack or blackouts. Single operator train driving on the commercial network is an example of a High Level Safety Critical task.

Safety Critical Worker (Category 2)

Safety Critical tasks that are not High Level include those where fail-safe mechanisms ensure sudden incapacity does not affect safety of the rail network but attentiveness is important. For example, in many cases the signalling task is Safety Critical because accurate decision-making and monitoring is important but is not High Level Safety Critical because fail-safe systems ensure the safety of the network in case of worker incapacity.

Diagram 3. Definition of Risk Categories for Rail Safety Work



6.3 Non-Safety Critical Workers

Non Safety Critical Workers are those whose health and fitness will not impact directly on the safety of the public and the rail network. These workers are categorised based on whether their health and fitness will impact on their ability to protect their own safety and that of fellow workers.

Around the Track Personnel (ATTP) is the term used to describe workers who perform Non-Safety Critical tasks on or near the track as defined.

Their risk category depends on their likely exposure to moving rolling stock.

There are two Non-Safety Critical Worker risk categories.

ATTP operating in an Uncontrolled Environment (Category 3)

Where ATTP cannot be protected by a Controlled Environment they must have the ability to sense an oncoming train and move quickly out of the way. They are therefore required to have health assessments commensurate with these risks, including appropriate hearing, vision and mobility.

ATTP operating in a Controlled Environment (Category 4)

The risk to ATTP may be reduced by creating a Controlled Environment. Workers in a Controlled Environment do not need to rely on their vision, hearing and mobility to protect them from risk and do not require a health assessment.

Where workers may move between Controlled and Uncontrolled Environments the higher level of risk assessment should be applied.

Category 4 also includes those rail safety workers who do not work on or about the track as illustrated in Diagram 3.

7. Matching the Level of Health Assessment to Risk Category

After assigning a risk category to the worker, the employer will match the worker to the appropriate level of health assessment before referral to the health professional.

The health assessment requirements for the four risk categories for rail safety workers are summarised below.

7.1 Safety Critical Health Assessments (Categories 1 and 2)

Safety Critical Workers should undergo a comprehensive physical and psychological assessment at pre-placement, when changing to a position involving tasks of a higher Risk Category and periodically during employment. This is to detect conditions that may affect safe working ability (for example heart disease, diabetes, epilepsy, sleep disorders, alcohol and drug dependence, psychiatric disorders and eye and ear problems).

The assessment comprises a questionnaire and clinical examination. It may also include drug screening depending on the jurisdiction and organisation requirements.

7.1.1 Safety Critical Worker Questionnaire

This self-administered questionnaire collects a general history and helps screen for specific conditions that might affect rail safety task performance. These include:

- sleep disorders (Epworth Sleepiness Scale);
- alcohol dependency (AUDIT Questionnaire); and
- psychological problems (K10 Questionnaire).

The questionnaire is not diagnostic and no decision should be made regarding fitness for duty until the clinical examination is complete.

7.1.2 Clinical Examination

The clinical examination assesses the key body systems to identify conditions that might affect rail safety task performance including cardiovascular, neurological, psychological, musculoskeletal and visual systems. Referral for further tests or opinion may be required.

7.1.3 Additional Assessment Requirements High Level Safety Critical Workers (Category 1)

In addition to the components of the Safety Critical Worker Health Assessment, a High Level Safety Critical Worker must have a Cardiac Risk Score assessment to identify their risk of cardiovascular disease and collapse or incapacity from heart attack.

Tests include:

- fasting plasma glucose;
- fasting serum cholesterol (total and HDL); and
- resting ECG.

Results are combined with other risk factors such as age, cigarette smoking and blood pressure to calculate a Cardiac Risk Score on which to base predictions.

Other conditions likely to cause sudden incapacity and hence loss of control of safety critical work also need to be carefully assessed, (for example epilepsy, hypoglycaemia, heart block, transient ischaemic attacks, etc) as do conditions which cause inattentiveness such as excessive daytime sleepiness or anxiety states.

7.2 Track Safety Health Assessment (Category 3)

The Track Safety Health Assessment for ATTP (Category 3) comprises eyesight and hearing tests and an assessment to ensure safe mobility around the track.

7.3 Task-specific Requirements

The health assessment categories provide a general framework for defining health assessment needs. However certain tasks have specific requirements, for example for colour vision and/or hearing and/or musculoskeletal attributes.

The rail organisation will identify such requirements and communicate these to the health professional.

Screen-Based Equipment (SBE) Examinations

All persons who work 25% or more of their time on SBE should be routinely tested:

- pre-commencement on SBE;

- every two years over the age of 40 years; and
- whenever symptoms indicate a problem may exist.

Ocular assessment is required for ability to read accurately at near (hard copy) and intermediate (screen) distances.

7.4 Practical Tests

In some situations a clinical health assessment may need to be supplemented by a practical test to confirm fitness for duty. For example, practical tests for colour vision, hearing or musculoskeletal capacity may be applied to confirm the worker's ability to conduct the particular tasks required of them.

Practical tests may be conducted by persons appropriately trained in the test procedure and with experience of the tasks involved, eg a principal driver. Such persons should work in conjunction with the authorised health professional.

Each rail organisation should develop their own procedures and criteria for practical testing based on their system requirements. Principles of practical testing for hearing, vision and musculoskeletal capacity are outlined in this Volume.

7.5 Drug and Alcohol Screening

All jurisdictions require accredited rail organisations to ensure that rail safety workers are not impaired by alcohol or drugs when performing their work. Rail safety workers themselves also have a duty not to perform rail safety work whilst impaired by alcohol or drugs.

Pre-placement and/or Change of Grade Health Assessments for Safety Critical Workers may therefore include a drug screen depending on the jurisdiction's legislation and the rail organisation's requirements.

Periodic Health Assessments for Safety Critical Workers generally do not include a drug screen. However, assessment for drug or alcohol dependence is an aspect of the Safety Critical Worker Health Assessment.

This Volume includes guidance and criteria for authorised health professionals to assess

drug or alcohol dependence as well as guidance for managing a situation where acute drug or alcohol impairment is suspected at a Periodic Health Assessment.

8. Types of Health Assessments Required

There are three types of health assessments for rail safety workers as illustrated in Diagram 4. These aim to:

- confirm that a rail safety worker candidate is medically suited to the tasks to be performed;
- periodically monitor the rail safety worker's health during employment to detect conditions that might affect rail safety; and
- enable a timely response to concerns about the worker's health.

8.1 Pre-placement or Change of Grade (Risk Category) Health Assessments

Rail safety workers classified in Categories 1, 2 and 3 require health assessments at pre-placement and before changing to a position involving tasks of a higher Risk Category.

The assessments are aimed at determining a worker's fitness for rail safety duties and should match the risk category of the job they are entering.

Diagram 4 shows how the different types of health assessments work together to support the ongoing fitness for duty for rail safety workers.

8.2 Periodic Health Assessments

Periodic Health Assessments aim to identify health conditions that may affect safe performance of rail safety work. They should be conducted for Category 1, 2 and 3 rail safety workers according to the defined frequencies.

Category 1 and 2 Safety Critical Worker

- At time of commencement then
- 5 yearly to age 50
- 2 yearly to age 60
- Yearly thereafter

Category 3: ATTP in Uncontrolled Environment

- At time of commencement then
- at age 40 and 5 yearly thereafter

The frequencies are a minimum requirement based on evidence of rate of age-associated degenerative illness, the increased power of the revised assessment to detect rail safety workers at risk and comparison with local and overseas standards.

Employers may choose to implement more frequent Periodic Health Assessments should the need and rationale be identified.

An authorised health professional may also recommend more frequent assessments for the purpose of health surveillance (ie Triggered Health Assessment), depending on the needs of the individual worker.

Ongoing treatment of medical conditions should continue to be the responsibility of the worker's general practitioner.

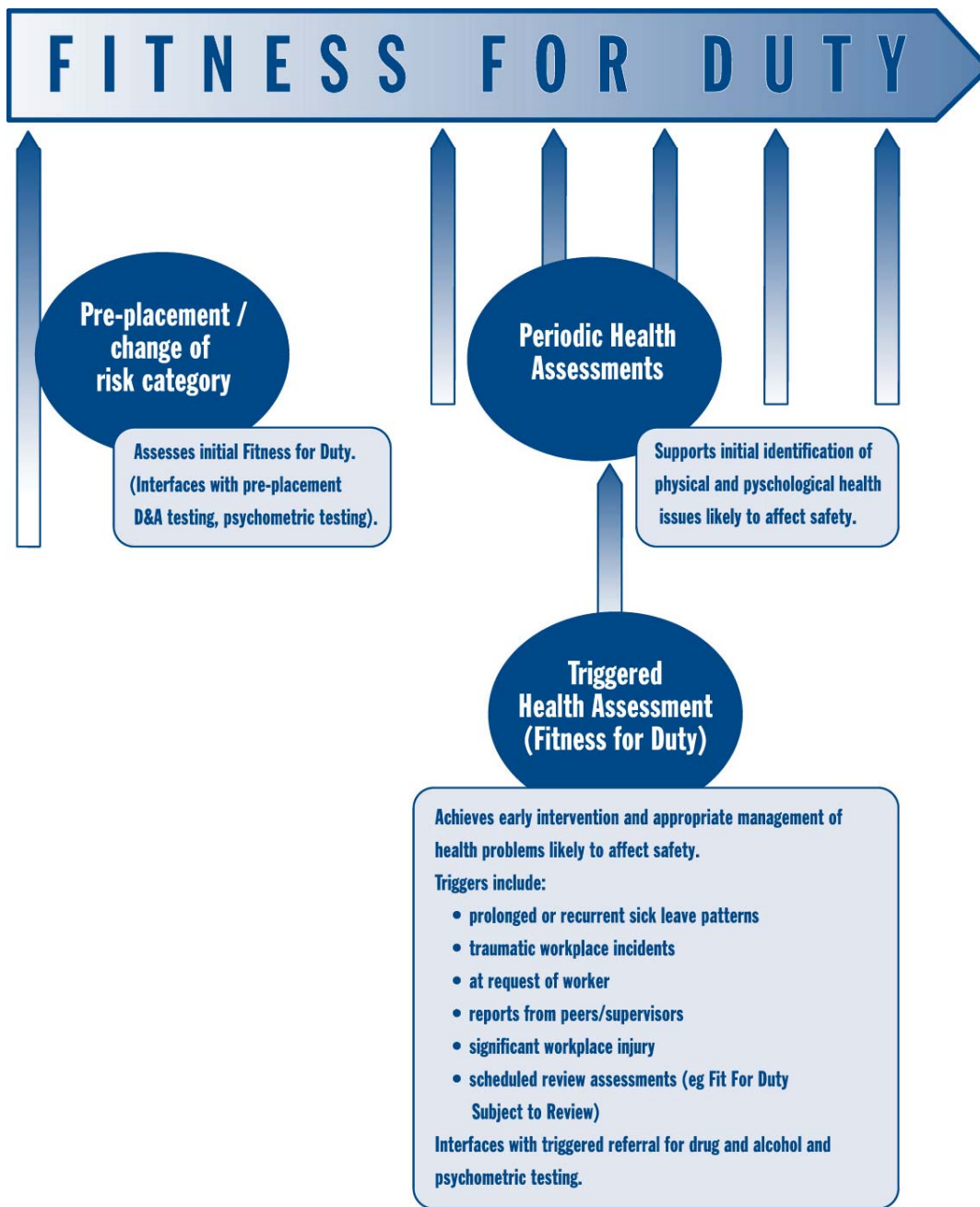
The program of comprehensive Periodic Health Assessments should be maintained even if more frequent Triggered Health Assessments are performed for an individual's particular condition.

8.3 Triggered Health Assessments

Triggered Health Assessments are conducted in response to incidents or concerns regarding the worker's ability to perform their job safely. They are likely to address a particular health issue and include scheduled review assessments for conditional fitness for duty (Fit for Duty Subject to Review).

Triggered Health Assessments aim for early intervention and appropriate management of health problems likely to affect safety. They overlay Periodic Health Assessments and help to identify and manage illness of unpredictable and rapid onset. For example, psychological conditions (eg anxiety states) are not age dependent and onset patterns are not clearly defined. Therefore they may not be readily identified at a Periodic Health Assessment.

Diagram 4. Health Assessments Supporting Fitness for Rail Safety Work



Rail organisations should be alert to indicators of ill health such as recurrent absenteeism, repeated incidents and recent traumatic events and discuss these with the rail safety worker. This may lead to triggered referral for health or neuropsychology assessment, retraining

in competencies or to the Employee Assistance Program.

To ensure appropriate referrals and transparency in decision-making, the rail organisation should develop and distribute clear referral criteria for Triggered Health Assessments.

Examples of trigger situations include:

***Scheduled Review Assessments
(Fitness for Duty Subject to Review)***

Health assessments scheduled for workers assessed Fit for Duty Subject to Review or Temporarily Unfit for Duty Subject to Review are the most common triggered referrals. They are more frequent than standard Periodic Health Assessments to allow for closer monitoring of a health condition. Review intervals are recommended by the authorised health professional.

Sick Leave and Patterns of Absenteeism

Workers who have been absent from work due to an injury or illness and who have a condition that may adversely affect their ability to perform rail safety duties, should be assessed for fitness for duty before returning to work, taking account of their rehabilitation plan.

Recurrent absenteeism may also flag the need for referral for health assessment. Sick leave review systems should support and validate such referrals.

Accident/Incident Patterns

Accident/incident patterns may indicate worker difficulties or health issues. The rail organisation's incident investigation and management procedures should consider potential health (including psychological) issues and refer for health assessment as required.

At Worker's Request

Workers should report to the employer any illness or health problem likely to affect their ability to work safely, including impairment from medication as required by statutory drug control provisions.

Table 2 summarises the health assessment requirements and types of health assessments for the various categories of rail safety worker.

9. Procedures for Conducting Health Assessments

The administrative, clinical and reporting procedures which should be followed by the authorised health professional in conducting health assessments for rail safety workers are described below.

9.1. Clinical Appointment and Documentation

An appointment for an assessment will be made either by the employer or the worker.

Prior to the appointment the employer will forward to the health professional the relevant forms and documentation. The health professional should not conduct the assessment without the appropriate forms.

Model Forms are included in Part 4 of this Volume and include:

- ***Health Assessment Request and Report Form (Blue Form)*** which will indicate the nature of the worker's job and the level (eg Category 1) and type (eg Pre-placement) of health assessment required;
- ***Safety Critical Worker Questionnaire (Pink Form)*** which the worker should have completed and brought to the appointment; and
- ***Health Assessment Record for Health Professional (Green Form)*** which guides the clinical examination and provides a convenient standardised template for recording a general assessment of fitness for rail safety duty.

High Level Safety Critical Workers will require an ECG and blood test prior to the appointment. These should be completed in advance and the results forwarded to you directly.

Safety Critical Workers should also bring supporting documentation to a Periodic Assessment. The employer will indicate on the Blue Form what documentation from the list has been included as relevant to the case.

Table 2. Summary of Health Assessment Requirements for Rail Safety Workers

CATEGORY 1 - High Level Safety Critical Worker	
Workers performing tasks critical to rail network safety and whose action, inaction or collapse, due to ill-health, may lead directly to a serious incident affecting the network.	
Type of Health Assessment Required	Frequency
<p>Preplacement / Change of Category Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire & history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-based equipment (SBE) examination if required • Drug Screen if required plus • Cardiac Risk Score <p>Additional health assessments may be implemented to meet OHS requirements</p>	On commencement and when moving to a position involving tasks of a higher risk category.
<p>Periodic Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire & history • Comprehensive physical and psychological assessment • Vision and hearing • Hearing assessment • Screen-based equipment (SBE) examination if required plus • Cardiac Risk Score <p>Additional health assessments may be implemented to meet OHS requirements.</p>	<ul style="list-style-type: none"> • 5 yearly to age 50 • 2 yearly to age 60 • Yearly thereafter <p>Note: Depending on the needs of the worker, authorised health professionals may also recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should continue to be the responsibility of the worker's General Practitioner.</p>
<p>Triggered Health Assessments</p> <p>Nature of health assessment will depend on the triggering circumstances.</p>	As determined by circumstances
CATEGORY 2 - Safety Critical Worker	
Workers performing tasks critical to rail network safety whose action or inaction, due to ill health, may lead directly to a serious incident affecting the network.	
Type of Health Assessment Required	Frequency
<p>Preplacement / Change of Category Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire & history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-based equipment (SBE) examination if required • Drug Screen if required <p>Additional health assessments may be implemented to meet OH&S requirements.</p>	On commencement and when moving to a position involving tasks of a higher risk category.
<p>Periodic Health Assessments</p> <p>Safety Critical Worker Health Assessment including:</p> <ul style="list-style-type: none"> • Safety Critical Worker Questionnaire & history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-based equipment (SBE) examination if required <p>Additional health assessments may be implemented to meet OH&S requirements.</p>	<ul style="list-style-type: none"> • 5 yearly to age 50 • 2 yearly to age 60 • yearly thereafter <p>Note: Depending on the needs of the worker, authorised health professionals may also recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should continue to be the responsibility of the worker's General Practitioner.</p>
<p>Triggered Health Assessments</p> <p>Nature of health assessment will depend on the triggering circumstances.</p>	As determined by circumstances

CATEGORY 3 - Around the Track Personnel operating in an Uncontrolled Environment	
Those workers who are required to operate within the recognised safety envelope but without engineering or administrative controls to protect them from moving rolling stock, and whose action or inaction due to ill-health may endanger their safety or those of work colleagues.	
Type of Health Assessment Required	Frequency
Preplacement / Change of Category Health Assessments Track Safety Health Assessment including: <ul style="list-style-type: none"> • Vision and hearing • Mobility • Drug Screen as determined by task risk analysis. Additional health assessments may be implemented to meet OHS requirements.	On commencement and when moving to a position involving tasks of a higher risk category.
Periodic Health Assessments Track Safety Assessment including: <ul style="list-style-type: none"> • Vision and hearing • Mobility Additional health assessments may be implemented to meet OHS requirements.	<ul style="list-style-type: none"> • At age 40 and 5 yearly thereafter Note: Depending on the needs of the worker, authorised health professionals may also recommend more frequent assessments for health surveillance. Ongoing treatment and management of medical conditions should continue to be the responsibility of the worker's General Practitioner.
Triggered Health Assessments Nature of health assessment will depend on the triggering circumstances.	As determined by circumstances

CATEGORY 4	
Other than those in Categories 1-3	
Type of Health Assessment Required	Frequency
No prescribed health assessment for rail safety purposes. Health assessments may be implemented to meet OHS requirements.	N/A

This should include a copy of the report from the previous health assessment and may include summary reports of sick leave, worker's compensation claims, notifiable incident history (if relevant) and/or indication of a positive alcohol or drug impairment assessment.

The Safety Critical Worker should also be asked to bring all medications or a list of their medications to the appointment.

By agreement between the examining health professional and the employer, the worker may have been requested to attend for an audiogram prior to examination.

9.2 Facilities and Equipment

The examination room should be well lit, quiet and offer privacy with a nearby toilet. Equipment should include:

- Snellan chart, Ishihara plates (45cm and 70cm acuity tests, or referral to optometrist for SBE testing).

- Sphygmomanometer.
- Urine test container and dipsticks.
- Lap top/PC for recording data and calculating risk score (optional).

9.3 Orienting the Worker/Patient

To orient and inform the worker about the health assessment procedure:

- Exchange normal greetings and names.
- Check the ID photo of the person.
- Formally explain to the worker the purpose of the health assessment, and that the results will be discussed with them.
- Formally explain Privacy Principles: all clinical and health information will remain confidential and will not be forwarded to the employer without the worker's consent. The report provided to management will be in functional terms

in relation to their fitness to perform rail safety duties, as indicated on the Blue Form.

9.4 Safety Critical Worker Questionnaire

A Safety Critical Worker (Category 1 or 2) attending for a Periodic Health Assessment should bring a completed Safety Critical Worker Health Questionnaire. The assessment should not proceed unless this has been completed.

Review the worker's responses to the questionnaire. Elicit further information as required.

Calculate scores for various sections of the questionnaire and record the results on the *Health Assessment Record for Health Professional* (Green Form). These sections include:

- Epworth Sleepiness Scale (Question 4)
- alcohol AUDIT questionnaire (Question 5)
- K10 questionnaire (Question 6).

Clarify and discuss aspects of the questionnaire as required to establish history.

Request the person to sign the questionnaire as a truthful statement, then countersign and date.

9.5 Clinical Assessments relevant to the Worker's Risk Category

When examining a worker to assess their fitness for duty, the functionality of various body systems should be addressed as outlined in Part 2 of this Volume.

Additional tests or referral to a specialist may be required if and when clinical examination raises the possibility of potentially significant problems. It may be necessary to contact the treating doctor to clarify information regarding the worker's health. This must be done with the worker's consent.

9.6 Safety Critical Workers (Categories 1 and 2)

Health Assessments for Safety Critical Worker (Categories 1 and 2) require

assessment of all the following areas, discussed alphabetically.

Alcohol Dependence or Impairment

The main purpose of the health assessment with respect to alcohol is to examine for harmful drinking patterns or alcohol dependence.

Consider the result of the AUDIT Questionnaire (Question 5 of the Safety Critical Worker Health Questionnaire) together with relevant history, and/or clinical signs. If the score is raised (≥ 8) or other clinical findings warrant it, discuss the findings with the worker to determine possible explanations and to agree an approach to management such as baseline biochemistry, or referral to GP or to Employee Assistance Program.

If during a Periodic Health Assessment, the examining health professional identifies apparent acute alcohol impairment, this should be managed according to the specific chapter in Part 2A addressing *Alcohol Dependence and Impairment*.

In cases where the worker shows impairment they will need to be immediately classed Temporarily Unfit for Duty. If dependency is apparent the health professional will need to make a judgement regarding fitness for duty pending further assessment.

Cardiovascular

The cardiovascular examination should include:

- Blood pressure - this may be taken sitting or supine. If blood pressure is $\geq 150/95$ it should be repeated after 15 minutes supine.
- Pulse rate
- Heart sounds
- Peripheral pulses
- Cardiac Risk Score (High Level Safety Critical Workers, Category 1 only). Note worker's age, whether they are a smoker, blood pressure, ECG results, fasting cholesterol (total and HDL) and fasting plasma glucose. For scoring, see Part 2A, *Cardiovascular Diseases*.

Chest/lungs and Abdomen

Chest, lungs and abdomen should be examined, but a genital examination is not required.

Drug Dependence or Impairment

Drug screening may be required for Pre-placement/Change of Grade Health Assessments or for a specifically referred Triggered Health Assessment. Screening should be conducted in line with *Australian/New Zealand Standard 4308:2001: Procedures for the Collection, Detection and Quantification of Drugs of Abuse in Urine*.

If during a Periodic Health Assessment, the examining health professional identifies impairment which has no apparent medical basis, this should be managed according to the specific chapters in Part 2A addressing Drugs (*Illicit and Prescribed or OTC*).

In cases where the worker shows impairment they will need to be immediately classed Temporarily Unfit for Duty. If dependency is apparent the health professional will need to make a judgement regarding fitness for duty pending further assessment.

Hearing

If facilities are available conduct audiometry according to procedures outlined in Part 2A, *Hearing*. Alternatively an audiologist report will be provided with the health assessment request. The hearing threshold level for pure tones is defined as the number of decibels above standard audiometric zero for a given frequency at which the listener's threshold of hearing lies when tested in a suitable sound attenuated environment. It is the reading on the hearing level dial of an audiometer that is calibrated according to Australian Standard AS 2586-1983.

Neurological/Locomotor

An assessment of neurological and locomotor function should be aligned with the specific requirements of the worker's task but will generally involve assessment of the following:

- Ability to flex, extend and rotate head;

- Ability to raise arms above head by swinging them outwards;
- Ability to flex and extend arms, and grasp hands;
- Ability to flex trunk to reach about the knees.

The assessment should also involve observation of the worker's gait and performance of a Romberg Test. (Patient stands with feet together, then closes eyes).

Psychological Health

Consider the result of the K10 questionnaire (Question 6 of the Safety Critical Workers Health Questionnaire) together with other relevant history, clinical signs and accident/incident patterns reported by the rail organisation.

If the score is raised (≥ 19) or other clinical observations warrant it, discuss the findings with the worker to determine possible explanations such as work stress, domestic crises or endogenous causes, and agree an approach to management of the condition such as referral to GP/psychiatrist or to an Employee Assistance Program.

In some cases the worker will need to be immediately classed Temporarily Unfit for Duty pending further assessment (refer Part 2A, *Psychiatric Disorders*).

Sleep

Consider the result of the Epworth Sleepiness Scale score (Question 4 of the Safety Critical Worker Health Questionnaire) together with relevant history, clinical signs etc.

If the score is raised (≥ 16) or other clinical findings warrant it discuss the findings with the worker to determine possible explanations and agree an approach to management eg referral to GP, or referral to sleep clinic for polysomnography, or letter to management about roster (Fit for Duty Subject to Job Modification), etc. Usually the worker will need to be immediately classed Temporarily Unfit for Duty pending further assessment (refer Part 2A, *Sleep Disorders*).

Urinalysis

Urine should be tested for protein and sugar.

Vision

Visual acuity is tested with a Snellan chart that includes at least five letters on the 6/12 line, at a distance of 6m (or scaled to 3m). Explain what is required to the worker and ask them to read lines near the top to familiarise them with the chart.

Visual acuity should be measured one eye at a time (monocularly) without correction in the first place. More than two errors in reading the letters of any line is regarded as a failure to read the line.

Fields. Sit about 1m from the worker. Ask him/her to look at your nose. Extend your arms to be halfway between you and just within your own field of vision. Ask the worker to indicate to you when they notice your finger movement. Perform this test at 180° right and left, and various other points. Any defect in visual field should lead to referral for detailed assessment.

Colour Vision is screened for using Ishihara plates under good illumination. Show the worker the trial plate and explain the test. Then proceed to show the colour plates with numbers, noting any errors. The colour vision standards ("colour vision normal" and "colour vision defective safe") vary between jobs and the section on *Vision* should be referred to for specific advice.

Screen Based Equipment eye examination. Suitability to work with screen-based equipment is screened for using the proforma provided including eye chart at 45 and 70cm.

9.7 Additional Tests and Rail Specific Resources

To further assist in assessment there are some additional tests and rail specific resources to be aware of:

Neuropsychological Tests

Neuropsychological tests regarding aptitudes for drivers of trains have been specifically developed for use in recruitment and other situations. They may be used for assessment of drivers who have had injury

or illness affecting mental processes to help gauge their recovery and suitability for work. The tests should be applied by a psychologist experienced in their use.

Principal Drivers

A Principal Driver (or equivalent) is a senior driver with wide experience who is often involved in training other drivers. A worker with borderline impairment may be referred to a Principal Driver for a practical test. This is particularly relevant to musculoskeletal and neurological impairments. Such an assessment should be arranged through the worker's management and could be in conjunction with a physiotherapist or occupational therapist if the opinion of such a professional is also needed.

9.8 Track Safety Assessments for Category 3

The Track Safety Health Assessment (Category 3) requires assessment of vision, hearing and mobility only.

10. Fitness for Duty Classifications

To assess the fitness for rail safety duty, the results of the health assessment should be considered in relation to the specific criteria outlined in Part 2 of this Volume.

The various levels of fitness for duty are described below, including reference to the requirements for managing the worker. The Case Studies in Part 3 also illustrate how these levels of fitness for duty are applied in practice.

10.1 Functional Classifications for Reporting

The functional classification of a worker's fitness for duty are provided in the Standard and in the Blue Form. Note that:

- determinations may be combined;
- a particular worker may move from one classification to another as you progress through the medical assessment and investigation process.

Fit for Duty

This indicates that the person has met all the criteria in the standard and is to be reviewed in line with the normal Periodic Health Assessment schedule.

Fit for Duty Subject to Review

This indicates that the person has not fully met all the criteria in the standard, however the condition in question is sufficiently under control that normal duties may be permitted. Continuation of normal duties would be conditional on the person being reviewed more frequently than the Periodic Health Assessment schedule requires (Triggered Assessment). The review period is specified by the authorised health professional.

Fit for Duty Subject to Job Modification

This indicates that the person does not fully meet all the criteria of the standard, but could undertake current rail safety duties if suitable modifications were made to the job. These modifications may include:

- physical changes to equipment;
- changes to rosters eg to help manage sleep disorders; or
- requirements for the worker to operate under supervision.

Job modifications may not be practicable in various areas of rail safety work. For example, drivers are expected to drive any locomotive or tram for which they are trained and hence proposed job modifications may require discussion with the worker and supervisor.

Temporarily Unfit for Duty Subject to Review

This indicates the worker has not met all criteria in the standard and cannot perform current rail safety duties at present. However, the condition is anticipated to improve with treatment and the worker will be reviewed to determine fitness status. This differs from ordinary short-term illness causing absenteeism.

Temporarily Unfit for Duty may also be applied in situations where a clear diagnosis has not been made in the case of an undifferentiated illness, for example where a worker is being investigated for blackouts.

The examining health professional should advise about the period for review. The worker may be assessed fit for non-safety critical alternative duties.

Permanently Unfit for Duty

This indicates the worker has not met all criteria in the standard, their condition is permanent and they will not be able to perform current rail safety duties in the future. Normal company policies such as for redeployment may be considered.

10.2 Additional considerations***Temporary Illnesses***

The National Standard for Health Assessment of Rail Safety Workers does not presume to deal with the myriad of conditions that may affect health on a short-term basis and for which a rail safety worker may be referred for assessment regarding fitness to resume duty. Such conditions may include post-major surgery, severe migraine, fractures to limbs or stress.

Clinical judgment is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness

A rail safety worker may be referred with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised.

Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect rail safety work.

Generally, a Safety Critical Worker who presents with symptoms of a potentially serious nature, for example chest pains, blackouts, delusional states, dizzy spells and the like, should be assessed Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be assessed as fit for non-safety critical alternative duties.

Complex conditions and conditions not covered in the Standard

Where a worker has a systemic disorder or a number of medical conditions, there may be additive or cumulative detrimental effects on judgement and overall function. For example, there may be a combination of impaired vision, hearing and locomotor dysfunction or combinations of physical and mental illness and associated medication. If these or other clinical conditions are not adequately covered in Part 2, the health professional should consider:

- The nature of the worker's tasks and the worker's capacity to perform the duties safely. The key issue to consider is: could the condition affect vigilance or lead to sudden collapse and affect safety of the rail network?
- The modification of tasks or the environment to accommodate a person's condition without compromising their efficiency or the health and safety of others, or incurring unreasonable expense.

10.3 Specialist Referral

The worker's condition may warrant referral to a specialist. In such cases the authorised health professional should explain fully the nature of the rail safety tasks involved and the concerns regarding health status. The specialist report should be sent to the authorised health professional, not to the employer.

10.4 Informing and Counselling the Worker

The health professional should advise the worker of the results of the assessment and where relevant, about the ways in which their condition may impair their ability to conduct rail safety work. As part of this process, the worker becomes better informed about the nature of his or her condition, the extent to which he or she can maintain control over it, the importance of regular medical review and the need for medication where appropriate.

Should the worker be found unfit for duty, the health professional should take a conciliatory and supportive role while

explaining fully the risks posed by the worker's condition with respect to rail safety work.

10.5 Reporting to the Employer

Should the worker be assessed as Unfit for Duty either temporarily or permanently, the health professional should notify the employer immediately by phone to discuss the implications of the assessment and to allow the employer to make appropriate arrangements. The health professional should not discuss specific clinical information, only recommendations in terms of fitness for duty including any necessary job modifications.

In all cases the health professional should complete the report section of the Blue Form. This report should not include any clinical information. Only the functional assessment of fitness for duty or otherwise, and any recommendations regarding specialist review or job modifications and the like should be reported to the employer.

The Questionnaire and Health Assessment Record should not be returned to the employer.

11. Record Keeping

Appropriate records should be maintained by the authorised health professional including:

- completed Safety Critical Worker Health Questionnaire;
- completed Health Assessment Record;
- copy of the report form sent to the employer;
- copies of relevant support information; and
- any additional clinical notes.

In addition and in accordance with legislation:

- the worker's medical records should be made available to them on request;
- the worker's medical records are subject to confidentiality; and
- records may be scanned and kept in electronic form. The employee's signature on the completed Safety

Critical Worker Health Questionnaire is legally valid after scanning.

12. Communicating with the Worker's General Practitioner and other Health Professionals

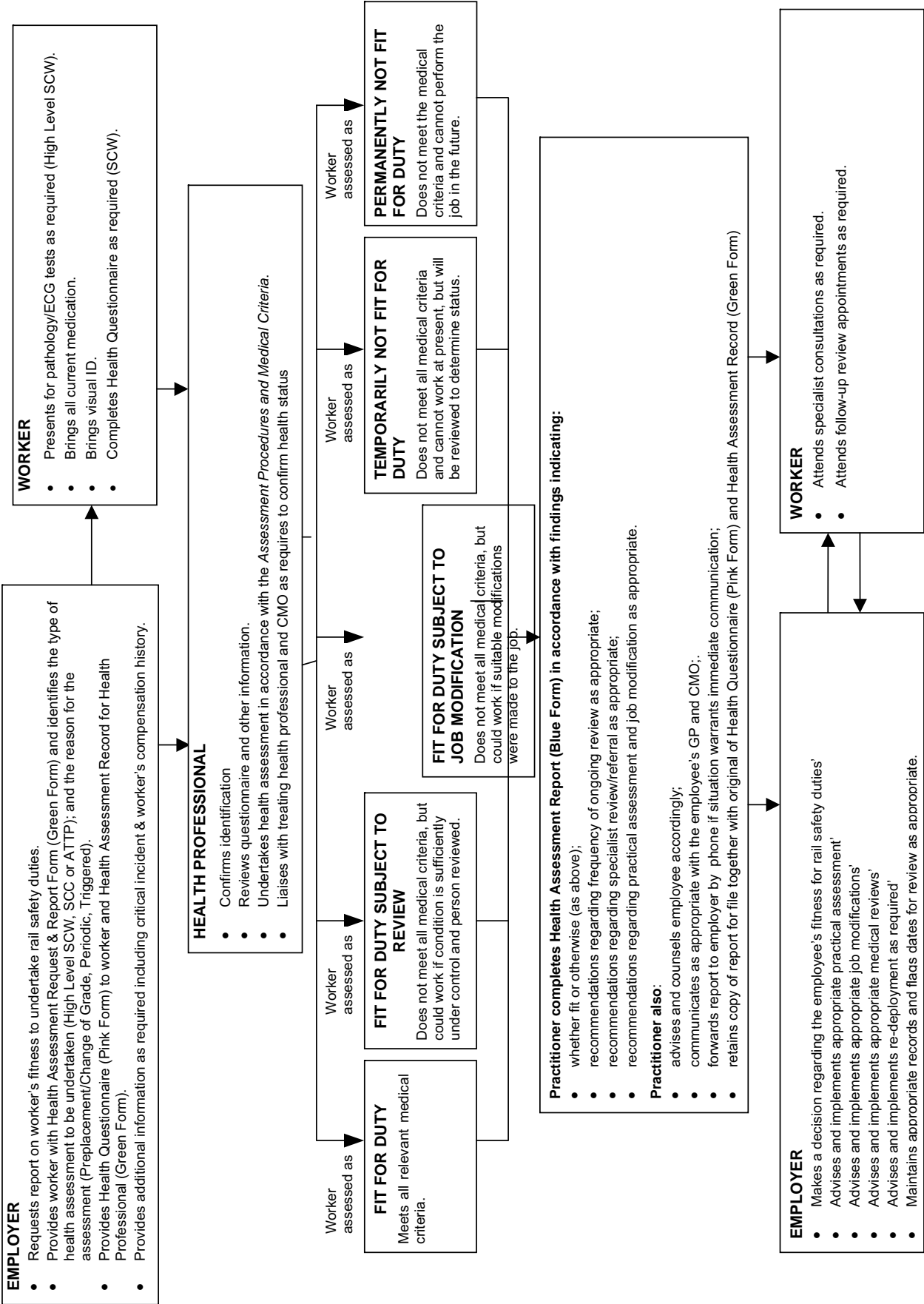
The authorised health professional should ensure an ethical relationship with the worker's general practitioner and other treating professionals and ensure continuity of care is maintained.

Reference to the general practitioner should be made for ongoing treatment requirements, for management of lifestyle issues and to discuss issues such as medication causing impairment.

The authorised health professional should obtain the worker's consent if needing to contact the worker's general practitioner or treating specialist to clarify information relating to the worker's health condition.

Diagram 5 provides a summary of the process involved in conducting a health assessment for fitness for rail safety duties and illustrates the roles and responsibilities of the various parties.

Diagram 5. Conducting a Health Assessment for Fitness for Rail Safety Duties



PART 2 – MEDICAL CRITERIA

Recent advances in the diagnosis and treatment of various illnesses, combined with engineering developments and the introduction of anti-discrimination and privacy legislation, have led to substantial revision of the medical standards for rail safety workers.

This section outlines the new medical criteria for assessing fitness for rail safety duty and is arranged in chapters alphabetically according to body system or medical condition. Each chapter provides general information about the condition and its effects on safety, and then provides advice about the medical assessment of the condition. The table in each chapter sets out the criteria to be met for fitness for rail safety duty.

The main focus of this section is on serious conditions that would impact on the ability to perform rail safety work. The criteria emphasise function in relation to the job rather than being based on diagnosis or impairment. Specialist advice may be useful regarding assessment of Safety Critical Workers.

Levels of Evidence

For each of the chapters the levels of evidence for fitness for duty criteria are noted according to the NHMRC requirements (NHMRC. *How to Use the Evidence: Assessment and Application of Scientific Evidence*. 2000. <www.nhmrc.health.gov.au/nhmrc/Guidelines/pdf/cp69.pdf>). Where a level of evidence is not specified, the evidence is based on expert opinion.

Comparison with Road Standards

In September 2003, the National Road Transport Commission (NRTC) and Austroads released extensively revised medical standards for licensing and managing commercial vehicle drivers,

Assessing Fitness to Drive 2003. These new standards have been used as a basis for the rail medical standards, however there are some differences between the rail and road transport environments which are reflected in the new rail standards.

The risk of a worker having a heart attack is a major consideration for the health assessment of workers in Safety Critical Workers, such as train drivers. The rail standards have therefore adopted the Cardiac Risk Score based on data from the American Heart Association (Heart to Heart www.med-decisions.com) and developed by Civil Aviation Safety Authority (CASA). The score enables a reasonably accurate forecast of cardiac events over a five year period.

Red colour vision is also important in the rail industry, as red light signals may be single lenses that do not provide positional cues and do not have a background to highlight the signal. Thus, whilst commercial vehicle drivers are not required to demonstrate normal colour vision, certain rail safety tasks such as driving, do require normal colour vision.

The importance of psychiatric health to rail safety work has also been recognised in the development of the rail standards and the screening tool, the K10 questionnaire has been included in the Safety Critical Worker Questionnaire. The commercial vehicle driver standards do not require use of a specific assessment tool for psychiatric health.

The sections on Alcohol Dependence and Impairment and Illicit and Prescription Drugs in these medical standards reflect the statutory drug controls that apply to the rail industry.

PART 2A - MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

1. ALCOHOL DEPENDENCE AND IMPAIRMENT

1.1 RELEVANCE TO SAFETY CRITICAL WORK

Alcohol Impairment and Legislative Requirements

Alcohol consumption is well known for the acute effects it has on vigilance and reaction times, and hence increased risk of an error and accident occurring. This has led to legislation and policies aimed at zero blood alcohol when performing rail safety work.

All states and territories require accredited rail organisations to ensure that rail safety workers are not affected by alcohol or drugs when performing rail safety duties. The specific provisions vary between the jurisdictions but generally require zero BAC or 0.02 BAC in workers carrying out or about to carry out rail safety work. Legislative provisions and /or individual organisation policy will also address requirements for testing for alcohol impairment, which may include "for cause" testing and random testing. The authorised health professional should acquaint themselves with the legislation in their jurisdiction and the procedures of the organisation for which they provide services.

These medical standards support alcohol policies through the provision of advice to authorised health professionals regarding the management of suspected impairment at the time of health assessment. However specific procedures for drug and alcohol screening are beyond the scope of this standard.

Harmful Drinking and Alcohol Dependence

In addition to the acute effects of alcohol, prolonged high intake may affect the liver or brain and lead to loss of vigilance. The Safety Critical Worker Health Assessment uses the AUDIT questionnaire to assess drinking behaviour and to indicate the need for further investigation.

1.2 EFFECT OF HABITUAL INTOXICATION ON OTHER DISEASES

Alcohol dependent drivers and workers are a particular concern and are disproportionately represented in (road vehicle) crashes. Prolonged alcohol abuse leads to effects on end organs such as the brain or peripheral nerves or liver, which may lead to further impairment of safety. Persons who are frequently intoxicated and who also suffer from certain other medical conditions are often unable to give their other medical problems the careful attention required.

Alcohol and Epilepsy

Many patients with epilepsy are quite likely to have a seizure if they miss their prescribed medication even for a day or two, particularly when this omission is combined with inadequate rest, emotional turmoil, irregular meals and alcohol. Patients under treatment for any kind of epilepsy are unfit for Safety Critical Work if they are frequently intoxicated.

Alcohol and Diabetes

Patients with diabetes and on insulin have a special problem when they are frequently intoxicated. Not only may they forget to inject their insulin at the proper time and in the proper quantity, but also their food intake can get out of balance with the insulin dosage. This may result in a hypoglycaemic reaction or the slow onset of diabetic coma. Such persons should not perform Safety Critical Work.

Alcohol and Medication

Some medications are incompatible with ingestion of alcohol (for example some sedatives). Where alcohol is thought to be a problem, medical practitioners should advise the patient accordingly and consider alternative medication where available. If the medication is likely to cause any level of impairment, the practitioner must take appropriate steps to restrict involvement in Safety Critical Work while on medication, for example, reporting worker as Temporarily Unfit for Duty while on the medication.

1.3 ALCOHOL AND ILLICIT DRUGS

The use of alcohol in association with a number of 'recreational' drugs such as marijuana exacerbates their effect and significantly increases the risk of an error. Therefore where alcohol is thought to be a problem, consideration should also be given to illicit drug use and appropriate steps taken.

1.4 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table overleaf.

The AUDIT questionnaire should be applied as shown in Section 5 of the Safety Critical Worker Questionnaire (Part D) and scored as follows:

- Questions 5.1 – 5.8, scores are 0,1,2,3,4, from left to right.

- Questions 5.9 and 5.10, scores 0,2,4, from left to right.
- Thus total maximum score is 40.

A score of eight or more indicates a strong likelihood of hazardous or harmful alcohol consumption. If the score is raised or other clinical findings warrant it, discuss the findings with the worker to determine possible explanations and to agree an approach to management eg, biochemical tests as a baseline, referral to GP or to Employee Assistance Program, etc. In some cases the worker will need to be immediately classed Temporarily Unfit for Duty pending further assessment or Fit for Duty Subject to Review.

Referral to a specialist in alcohol may be considered. Workers with alcohol problems who are not truthful may score lower on their questionnaire than should be the case.

Alcohol Dependence: Alcohol dependence is a syndrome the key elements of which are:

- Narrowing of the drinking repertoire (every days drinking is similar to the day before).
- Saliency of drinking (priority given to maintaining alcohol intake and neglect of previously important work and social activities).
- Increased tolerance to alcohol.

- Withdrawal symptoms on stopping drinking.
- Relief or avoidance of withdrawal symptoms by further drinking.
- Subjective awareness of compulsion to drink (impaired control, urges or cravings).
- Reinstatement of drinking after abstinence.

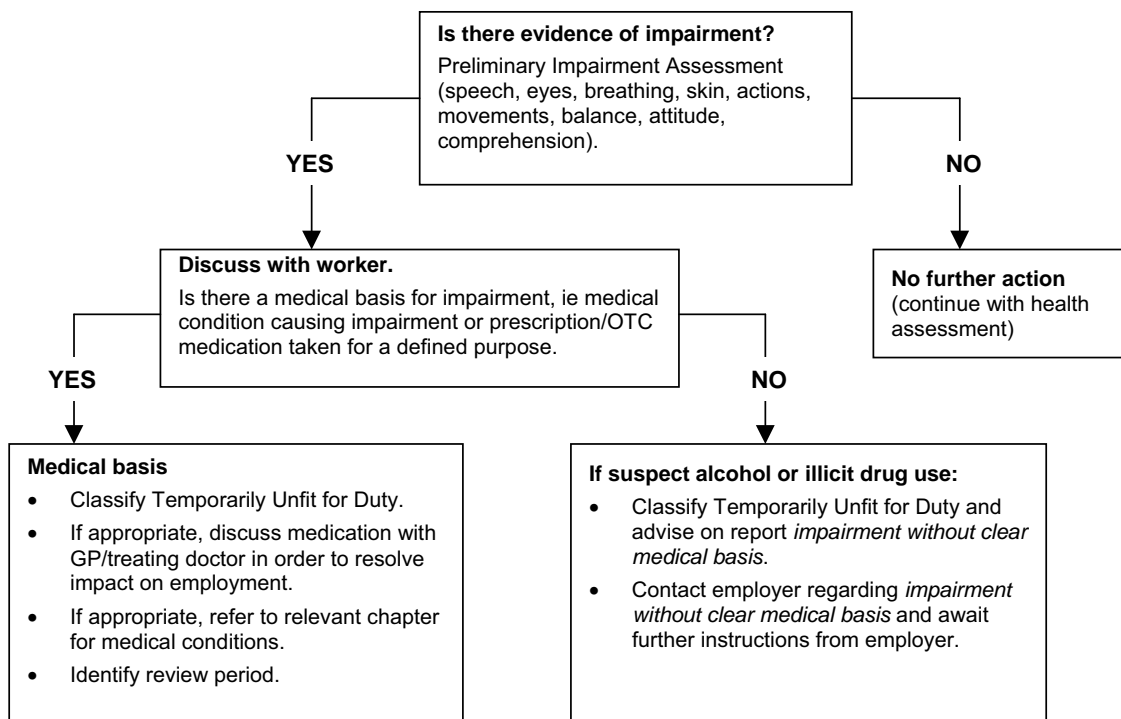
Three or more of the above fit the *International Classification of Diseases* (ICD) criteria for dependence.

Binge Drinking: Binge drinking has been defined as the intermittent consumption of alcohol to intoxication in short periods of time (six standard drinks for a male and four for a female). During binges persons may exhibit behaviour similar to that of problem drinkers and may be considered unfit for rail safety work.

Tests of blood alcohol are not routinely required at Periodic Health Assessment, but biochemical tests for alcohol abuse may be conducted if clinically indicated or if referred for a triggered assessment. The worker should be classified Fit for Duty Subject to Review or Temporarily Unfit for Duty as appropriate to the clinical appraisal.

In the event of a person presenting for a Periodic Health Assessment with evidence of impairment, an assessment of the impairment should be conducted and the person managed as shown in Diagram 6.

Diagram 6. Periodic Health Assessment – Management of possible impairment due to alcohol or drugs (illicit or prescription/OTC)



MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – ALCOHOL	
CONDITION	CRITERIA
Alcohol Impairment	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> If the worker is impaired by alcohol Refer to Diagram 6 for management
AUDIT Questionnaire	If the person has an AUDIT score of 8 or greater the person may be classified Fit for Duty Subject to Review or Temporarily Unfit for Duty or while causes are being assessed and managed.
Alcohol Dependency	The criteria for Fit For Duty are not met: <ul style="list-style-type: none"> If there is alcohol dependency or If the worker has a strong history of alcohol abuse and clinical evidence of abuse is limited to biochemical findings without clinical signs. Fitness for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work: <ul style="list-style-type: none"> If the worker has stopped drinking for a substantial period; and Demonstrates good evidence of insight into the problem; and Is compliant with treatments; and Shows no evidence of end organ damage relevant to Safety Critical Work as specified elsewhere in this Volume.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which the Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

Further reading

Arnedt, J.T., et al, *Simulated driving performance following prolonged wakefulness and alcohol consumption: separate and combined contributions to impairment*, Journal of Sleep Research, 9(3), 233-241, 2000.

Liguori, A.D., et al, *Alcohol effects on mood, equilibrium, and simulated driving*, Alcoholism, Clinical and Experimental Research, 23(5), 815-821, 1999.

Peterson K and Smith D. *Alcohol and drug abuse in industry*. Ch 59 in 'Environmental and Occupational Medicine'. Editor, W Rom. Lipincott. Philadelphia. 1998.

2. ANAESTHESIA

2.1 RELEVANCE TO SAFETY CRITICAL WORK

Anaesthesia may affect the ability to perform Safety Critical Work. Post anaesthesia, both physical and mental capacity may be impaired for some time thus affecting a worker's ability to drive and work safely. This is applicable to both general and local anaesthesia. The effects of general anaesthesia will depend on factors such as the duration of anaesthesia, the drugs administered and the surgery performed. The degree of effect of local anaesthesia on the ability to perform Safety Critical Work is dependent on dosage and region of administration. A further factor to consider is the effects of analgesics and sedatives (refer Drugs – Prescription and OTC).

2.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

There are no specific criteria regarding fitness for duty following anaesthesia.

In cases of post-operative recovery following surgery or procedures under general or local anaesthesia, it is the responsibility of the anaesthetist to advise patients about the potential effects of the anaesthesia and the need to allow for an appropriate period of physical and mental recovery before resuming Safety Critical Work.

Following minor procedures under local anaesthesia without sedation (for example, dental block), return to work may be acceptable immediately following the procedure.

Following brief surgery or procedures with short acting anaesthetic drugs, the worker may be Fit for Duty after a normal night's sleep. After longer surgery or procedures requiring anaesthesia, it may not be safe to perform Safety Critical Work for 24 hours or more. Decisions should be made on a case-by-case basis.

Reference:

Lichtor, J., Alessi, R., Lane, B. *Sleep tendency as a measure of recovery after drugs used for ambulatory surgery.* Anesthesiology 2002;96:878-883

3. CANCER

3.1 RELEVANCE TO SAFETY CRITICAL WORK

Cancer may affect the ability to perform Safety Critical Work. The site and degree of advancement of the cancer is a prime consideration because the cancer may affect various body functions. This is particularly important for cerebral tumours. Refer elsewhere in this Volume for advice regarding other specific organ involvement, for example, liver metastases.

Treatment with opioids, chemotherapy or radiotherapy may present side effects which interfere with an individual's functional capacity and thus may be incompatible with the performance of Safety Critical Work.

3.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the following table.

Cases should be assessed on an individual basis regarding the site of the cancer, the response to chemotherapy and radiotherapy and any side effects. This will also involve assessing the patient's functional capacity and what medication the patient is taking.

If the tumour involves the brain the patient should not undertake Safety Critical Work, subject to a health assessment. Neuropsychological assessment may be helpful in this regard. An assessment by a Principal Driver may also be useful.

Palliative Care: Patients with cancer are often prescribed opioids, particularly for palliative care. Safety Critical Workers will require careful individual assessment. (Refer also *Drugs – Prescription and OTC*).

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CANCER	
CONDITION	CRITERIA
Cancer	The effects at the primary site or of metastases are mainly covered by criteria given elsewhere in this Volume.
Intracranial tumours	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has evidence of primary or secondary cancer within the brain. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work:</p> <ul style="list-style-type: none"> • Three months after successful treatment of the tumour; and • If the person is likely to remain stable and physical and mental abilities are judged by treating specialist to be adequate for safe working. <p>Neuropsychologist and Principal Driver assessment may be helpful.</p>

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which the Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

4. CARDIOVASCULAR DISEASES

4.1 RELEVANCE TO SAFETY CRITICAL WORK

Cardiovascular disease may affect the ability to perform Safety Critical Work due to sudden incapacity such as from a heart attack or an arrhythmia. **This is particularly relevant to Category 1, High Level Safety Critical Workers.**

Symptomatic heart disease as well as pre-symptomatic disease needs to be detected. This is made possible through the use of screening tests beginning with the Cardiac Risk Score (see below).

A Category 1 High Level Safety Critical Worker such as a train driver, who is asymptomatic but found to have an increased likelihood of a heart attack on a Cardiac Risk Score, should be assessed more fully than an ordinary patient because of the risks they pose to rail safety.

4.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the tables commencing on page 34.

Standards for chronic disorders are made with the presumption that the disorder is stable and well controlled. If this is not the case, a specialist consultation should be conducted. Fitness for Duty Subject to Review may be recommended after initial assessment by an appropriate specialist.

Cardiac Risk Assessment

Assessment of cardiac risk involves clinical assessment as well as use of the Cardiac Risk Score. Clinical assessment includes the evaluation of information such as:

- symptoms, such as undetermined chest pain;
- family history, such as first degree relatives having cardiovascular events in mid-life;
- past history;
- co-morbidity such as obesity (BMI ≥ 30), inactivity, obstructive sleep apnoea, depression;
- work factors such as exposure to climatic extremes in course of work, etc.

All information should be used in assessing fitness especially for Category 1 High Level Safety Critical Workers. Clinical judgement may be needed to determine if a person is Fit for Duty, Fit for Duty Subject to Review, or Temporarily Unfit for Duty while being further assessed.

Cardiac Risk Score: for High Level Safety Critical Workers

The health assessment for High Level Safety Critical Workers incorporates the Cardiac Risk Score as a tool for predicting risk of a cardiovascular event, and in particular heart

attack, over 5 years. It considerably enhances the power of the assessment to identify workers at risk of sudden incapacity and to guide their management.

The Cardiac Risk Score is based on data from the American Heart Association (Heart to Heart www.med-decisions.com) and has been developed by Civil Aviation Safety Authority (CASA). The score has been adapted to reflect the risks of the rail environment.

The Heart to Heart web site provides a calculator for the score and also shows the reduction in score to be obtained if risk factors are successfully modified. This can assist in worker education.

The Cardiac Risk Score is utilised as follows:

1. Data Collection

Obtain the information for the Cardiac Risk Score calculator as follows:

- Age;
- Cigarette smoking;
- Blood pressure as measured supine;
- ECG - report specifically requiring information re presence of left ventricular hypertrophy¹;
- Fasting blood for Total and HDL cholesterol;
- Fasting plasma glucose test (level over 7mmol/L is diabetic).

2. Calculation

Calculate the score using Table 3: Coronary Heart Disease Risk Factor Prediction Chart.

3. Stratification and Risk Management

The Cardiac Risk Score is associated with a probability of a cardiovascular event in the next 5-10 years. The higher the score the higher the probability. Therefore management of workers is determined partly by their risk score and partly by their overall cardiac risk assessment.

- Score ≥ 32 (probability $\geq 25\%$ in 5 years). Worker is unfit for High Level Safety Critical work. They should be referred for stress ECG and classed Temporarily Unfit for Duty pending results and appropriate management.
- Score 22-31 (probability 11-24% in 5 years). Worker is referred for stress ECG. While awaiting results of ECG the worker may be assessed as Fit for Duty Subject to Review or Temporarily Unfit for Duty depending on overall cardiac risk assessment.

¹ Left Ventricular Hypertrophy (LVH)

The Sokolow-Lyon criterion for LVH is met if the amplitude of the S wave in V1 added to the amplitude of the R wave in V5 is greater than 35mm. There are other considerations, with LVH regarded as more severe if there are additional S-T and T wave changes.

- Score 15-21 (probability 5-9% in 5 years). Worker is assessed for specific risk factors and overall cardiac risk, including obesity, physical activity and family history. The worker may be managed by referral to GP for risk factor modification and/or stress ECG and/or other tests as clinically appropriate. While awaiting results of further investigations the worker may be classed Fit for Duty Subject to Review or Temporarily Unfit for Duty depending on overall assessment. They should be reviewed annually.
- Score <15 (probability <5% in 5 years). Worker assessed regarding overall cardiac risk assessment and managed accordingly including referral to GP as required. They may be classed Fit for Duty, Fit for Duty Subject to Review depending on overall assessment.

Stress ECG.

The stress ECG should be conducted using the Bruce protocol. The exercise capacity should be ≥ 90% of the age/sex predicted capacity (Bruce et al 1973).

Where stress ECG is positive or clinical assessment warrants it, referral to a cardiologist should be made for further assessment and advice on management.

Risk Factors

Where risk factors are identified eg raised blood pressure, smoker etc, the worker should be referred to their general practitioner and other appropriate programs. The worker should be reviewed annually to monitor management of their risk factor profile. Where hypertension is identified as a risk factor, refer to the section on hypertension.

Diagram 7. Management of Cardiac Risk Score

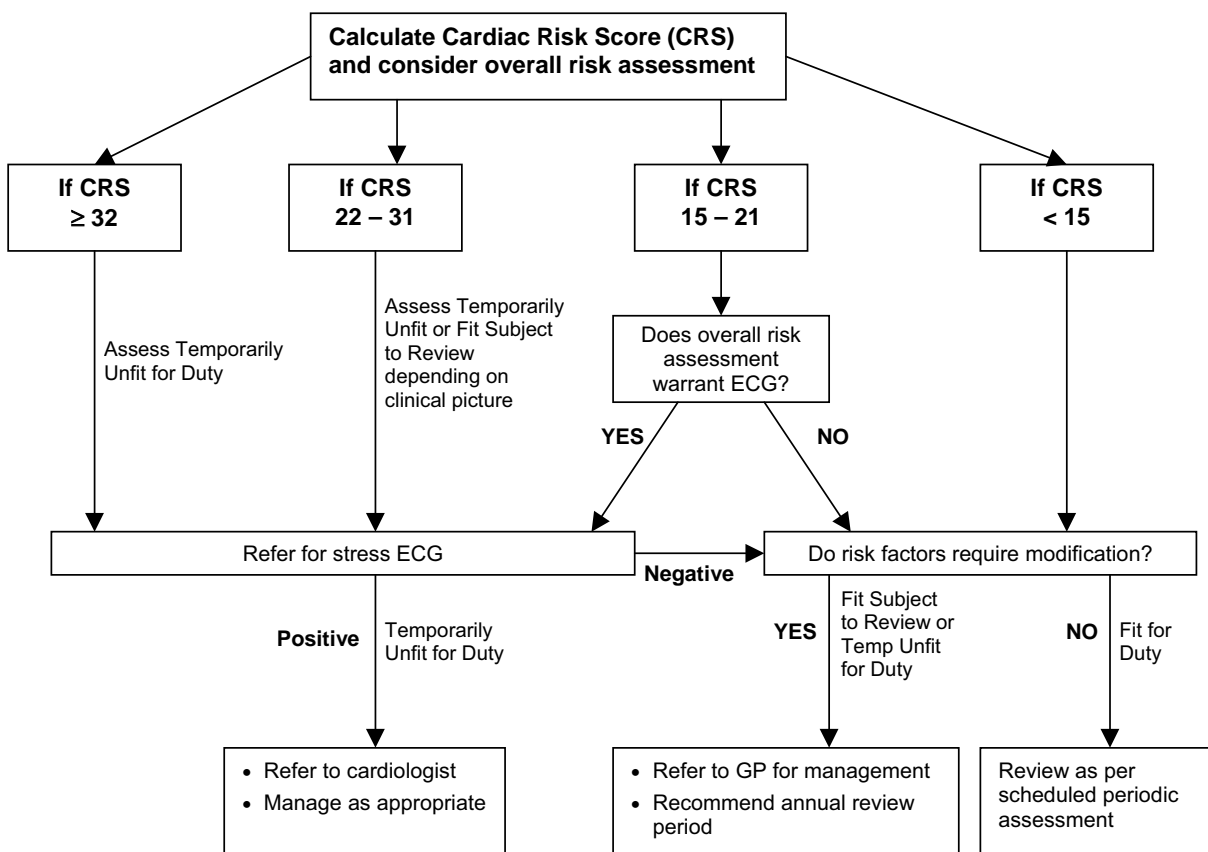


Table 3. Coronary Heart Disease Risk Factor Prediction Chart

(Civil Aviation Safety Authority)

1. Find Points For Each Risk Factor															
Age (if Female)		Age (if Male)		HDL- Cholesterol		Total-Cholesterol		Systolic Blood Pressure		Other		Pts			
Age	Pts	Age	Pts	HDL-C	Pts	Total-C	Pts	SBP	Pts						
30	-12	47-48	5	30	-2	57-59	13	0.65-0.68	7	3.60-3.99	-3	98-104	-2	Cigarettes	4
31	-11	49-50	6	31	-1	60-61	14	0.69-0.76	6	4.00-4.30	-2	105-112	-1	Diabetic-male	3
32	-9	51-52	7	32-33	0	62-64	15	0.77-0.84	5	4.31-4.60	-1	113-120	0	Diabetic-female	6
33	-8	53-55	8	34	1	65-67	16	0.85-0.90	4	4.70-5.19	0	121-129	1	ECG-LVH	9
34	-6	56-60	9	35-36	2	68-70	17	0.91-0.99	3	5.20-5.69	1	130-139	2		
35	-5	61-67	10	37-38	3	71-73	18	1.00-1.09	2	5.70-6.19	2	140-149	3		
36	-4	68-74	11	39	4	74	19	1.10-1.19	1	6.20-6.79	3	150-160	4	0 pts for each NO	
37	-3			40-41	5			1.20-1.30	0	6.80-7.49	4	161-172	5		
38	-2			42-43	6			1.31-1.43	-1	7.50-8.19	5	173-185	6		
39	-1			44-45	7			1.44-1.56	-2	8.20-8.55	6				
40	0			46-47	8			1.57-1.70	-3						
41	1			48-49	9			1.71-1.89	-4						
42-43	2			50-51	10			1.90-2.07	-5						
44	3			52-54	11			2.08-2.25	-6						
45-46	4			55-56	12			2.26-2.49	-7						

2. Sum Points For All Risk Factors									
Age () + HDL-C () + Total C () + SBP () + Smoker () + Diabetes () + ECG-LVH () =		Point Total ()							
NOTE: Minus points subtract from total									

3. Look up risk corresponding to point total									
Probability (%)		Probability (%)		Probability (%)		Probability (%)		Probability (%)	
Pts	5Yr.	10Yr.	Pts	5Yr.	10Yr.	Pts	5Yr.	10Yr.	Pts
< 1	<1	<2	10	2	6	19	8	16	33
2	1	2	11	3	6	20	8	18	36
3	1	2	12	3	7	21	9	19	38
4	1	2	13	3	8	22	11	21	40
5	1	3	14	4	9	23	12	23	42
6	1	3	15	5	10	24	13	25	
7	1	4	16	5	12	25	14	27	
8	2	4	17	6	13	26	16	29	
9	2	5	18	7	14	27	17	31	

4. Compare to Average 10 Year Risk									
Probability (%)		Probability (%)		Probability (%)		Probability (%)		Probability (%)	
Pts	5Yr.	10Yr.	Pts	5Yr.	10Yr.	Pts	5Yr.	10Yr.	Pts
<1	<1	<1	30-34	30-34	30-34	33	19	33	30-34
5	5	<1	35-39	35-39	35-39	36	20	36	35-39
6	6	2	40-44	40-44	40-44	38	22	38	40-44
10	10	5	45-49	45-49	45-49	40	24	40	45-49
14	14	8	50-54	50-54	50-54	42	25	42	50-54
16	16	12	55-59	55-59	55-59				55-59
21	21	13	60-64	60-64	60-64				60-64
30	30	9	65-69	65-69	65-69				65-69
24	24	12	70-74	70-74	70-74				70-74

Modified from Chart by The American Heart Association, April 2002

Suspected Angina Pectoris Where chest pains of uncertain origin are reported, every attempt should be made to reach a positive diagnosis and the worker counselled in the meantime to restrict his or her Safety Critical Work. Generally it would be wise to classify the person as Temporarily Unfit for Duty until investigations exclude heart disease. If the tests are positive or the person remains symptomatic and requires anti-angina medication for the control of symptoms, the criteria listed for proven angina pectoris apply.

Cardiac surgery may be performed for various reasons including valve replacement, excision of atrial myxoma or correction of septal defects. In some cases this is curative of the underlying disorder. Refer Table 4 on Non-working Periods. In other cases the condition may not be stabilised and hence needs to be individually assessed. All cardiac surgery patients should be advised regarding returning to Safety Critical Work in the short-term as for any other post-surgery patient and may be classed as Temporarily Unfit for Duty.

Deep venous thrombosis may occur in association with surgery or from clotting disorders. A risk to Safety Critical Work occurs if a pulmonary embolus arises. DVT need to be assessed with regard to the likelihood of recurrence over a long period to gauge the impact on fitness for duty. A DVT arising in the course of surgery is unlikely to have impact on fitness for duty because it is self-limiting. Treatment often involves anti-coagulants and this section in the standard should also be referred to.

Anti-coagulant therapy may be used for disorders of cardiac rhythm, following valve replacement or for deep venous thrombosis to lessen the risk of emboli. However, if not adequately controlled there is a risk of bleeding which, in the case of an intracranial bleed may acutely affect Safety Critical Work. Such workers may only work if well controlled and subject to review.

Hypertension is associated with increased risk of heart attack and stroke which is particularly important in High Level Safety Critical Workers. Assessment of workers with high blood pressure should include end organ damage relevant to safe working, the presence of other risk factors which increase the likelihood of cardiovascular event, and the possibility that treatment may cause hypotension.

Hypertension presents as a spectrum of blood pressures with the highest posing the greatest risk and therefore a graded response is appropriate.

- Workers found to have blood pressure (treated or untreated) consistently greater than 200/110 pose an unacceptable risk and should be classed Temporarily Unfit for Duty and referred for treatment.
- Workers with blood pressure less than 200/110 but greater than 150/95 (treated or

untreated) may be classed as Fit for Duty Subject to Review. They should be treated so as to obtain a level of less than 150/95 within 9 months, with 3 monthly review. (The review need not be by a cardiologist). If this is not achieved they should be classified Unfit for Duty. Aggressive treatment may require attention as appropriate, to compliance, weight-loss, decreased alcohol, regular exercise, decrease salt intake, etc.

- Blood pressure less than 150/95 is acceptable but further reduction is to be encouraged. The worker should be classed Fit for Duty Subject to Review.
- Blood pressure less than 140/90 is ideal. Workers who obtain this level only on treatment should be classed Fit for Duty Subject to Review; workers who are untreated and have this blood pressure should be classed Fit for Duty.

Where causative factors of hypertension have been identified and cured the worker should initially be classed Fit for Duty Subject to Review but after adequate follow-up shows blood pressure is normal may be exempted from review.

Effects of Safety Critical Work on the Heart:

A further problem in those who have established ischaemic heart disease is that Safety Critical Work such as driving causes occasional emotional and sensorimotor arousal leading to a faster heart rate and fluctuation in blood pressure. Such workers may need to respond to emergency which theoretically could trigger angina, or even infarction.

Non-Work Periods: A number of cardiovascular incidents and procedures may impact on short-term Safety Critical Work capacity as well as long-term fitness for duty, for example, AMI or aneurysm repair. Such situations present an obvious risk. The worker should be classified as Temporarily Unfit for Duty and should not undertake Safety Critical Work for the appropriate period, as laid out in Table 4. The recommendations regarding fitness for duty should be considered once the condition has stabilised and work capacity can be assessed per the standards outlined in this chapter.

Table 4. Suggested Non-working Periods Post Cardiovascular Events or Procedures

Event / Procedure	Minimum non- working period for Safety Critical Workers
Acute Myocardial Infarction	3 months
Aneurysm Repair	3 months
Angioplasty	4 weeks
Cardiac Arrest	As determined by treating specialist
Cardiac Defibrillator	N/A
Cardiac Pacemaker Insertion	1 month
Coronary Artery By-pass Grafts	3 months
Deep Vein Thrombosis	As determined by treating specialist
Heart/ Lung Transplant	3 months
Pulmonary Embolism	As determined by treating specialist
Syncope	3 months

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES	
CONDITION	CRITERIA
<p>Acute Myocardial Infarct</p> <p><i>See also Angioplasty</i></p> <p><i>See also Coronary Artery Bypass Grafting (CABG)</i></p>	<p>The person should not perform Safety Critical Work for at least three months after an AMI.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has had an acute myocardial infarction. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • At least 3 months after an uncomplicated AMI; • If the clinical history is one of minimal symptoms; and • If a Bruce Treadmill Test (or equivalent protocol) is $\geq 90\%$ of the age/sex predicted exercise capacity and thallium or sestamibi scan show no evidence of myocardial ischaemia. • If myocardial ischaemia is demonstrated a coronary angiogram may be offered. If that shows lumen diameter reduction of less than 70% in a major coronary branch, and less than 50% in the left main coronary artery, the person may perform Safety Critical Work, subject to annual review. • If the result of the angiogram shows a lumen diameter reduction of equal to or greater than 70% in a major coronary branch and less than 50% in the left main coronary artery (or if an angiogram is not conducted), Fit for Duty Subject to Review may be recommended: <ol style="list-style-type: none"> 1. If the clinical history is one of minimal symptoms; and 2. There is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and 3. There is no evidence of severe ischaemia, that is, less than 2mm ST segment depression on an exercise ECG and absence of a large defect on a stress perfusion scan; and 4. There is an ejection fraction of 40% or over. <p>The presence of other risk factors should also be considered.</p>
<p>Aneurysms Abdominal and Thoracic</p>	<p>The person should not perform Safety Critical Work for at least three months post repair.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has aortic aneurysm, thoracic or abdominal. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • At least 3 months after repair; • If the condition is minor; or • If the condition has been adequately treated.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES (CONT)	
CONDITION	CRITERIA
Angina	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person is subject to angina pectoris. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work, in the following circumstances:</p> <ol style="list-style-type: none"> If a Bruce Treadmill Test (or equivalent protocol) is $\geq 90\%$ of the age/sex predicted exercise capacity and thallium or sestamibi scan show no evidence of myocardial ischaemia. If myocardial ischaemia is demonstrated a coronary angiogram may be offered. If that shows lumen diameter reduction of less than 70% in a major coronary branch, and less than 50% in the left main coronary artery, the person may perform Safety Critical Work, subject to annual review. If the result of the angiogram shows a lumen diameter reduction of equal to or greater than 70% in a major coronary branch and less than 50% in the left main coronary artery (or if an angiogram is not conducted), Fit for Duty Subject to Review may be recommended: <ul style="list-style-type: none"> If the clinical history is one of minimal symptoms; and There is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and There is no evidence of severe ischaemia, that is, less than 2mm ST segment depression on an exercise ECG and absence of a large defect on a stress perfusion scan; and There is an ejection fraction of 40% or over. <p>The presence of other risk factors should also be considered. Where surgery or angioplasty is undertaken to relieve the angina, the criteria listed in the table below apply.</p>
Angioplasty	<p>The person should not perform Safety Critical Work for at least four weeks after the angioplasty.</p> <p>The criteria for Fit for Duty are not met:</p> <p>If the person has had coronary angioplasty Fit for Duty Subject to Periodic Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> At least 4 weeks after the angioplasty; If the clinical history is one of minimal symptoms; and There is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and There is no evidence of severe ischaemia, that is, less than 2mm ST segment depression on an exercise ECG and absence of a large defect on a stress perfusion scan; and There is an ejection fraction of 40% or over.
Anti-coagulant therapy	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person is on anti-coagulant therapy. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist or haematologist and the nature of the work:</p> <ul style="list-style-type: none"> If the therapy is satisfactory.
Arrhythmia	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has a history of recurrent or persistent arrhythmia, which may result in syncope or incapacitating symptoms. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist, and the nature of the work:</p> <ul style="list-style-type: none"> If the condition has been cured surgically (for example, Wolff-Parkinson White syndrome); or If the condition has been successfully treated medically for at least three months. <p>If the person is taking anti-coagulants refer to anti-coagulants therapy above.</p>

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES (CONT)	
CONDITION	CRITERIA
Cardiac Arrest	<p>The non-working period following a cardiac arrest should be determined by the treating specialist.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has suffered a cardiac arrest. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work, following an appropriate non-working period, and depending on the cause of the cardiac arrest and response to treatment.</p>
Cardiac Risk Score <i>(Refer to text and flow chart)</i>	<p>The cardiac risk score is to be interpreted in the context of overall cardiovascular risk assessment. For details of management refer to the text and Diagram 7.</p> <p>If Cardiac Risk Score is:</p> <ul style="list-style-type: none"> • ≥32: worker is unfit for High Level Safety Critical work. Refer for stress ECG and classify Temporarily Unfit for Duty pending results. • 22-31: refer for stress ECG. Whilst awaiting results classify Fit for Duty Subject to Review or Temporarily Unfit for Duty depending on overall risk assessment. • 15-21: refer to GP for risk factor modification or refer for stress ECG if appropriate. Whilst awaiting investigation classify Fit for Duty Subject to Review or Temporarily Unfit for Duty depending on overall risk assessment. Review annually. • <15 assess risk factors and other clinical data and refer to GP as appropriate. Classify Fit for Duty or Fit for Duty Subject to Review depending on overall risk. Assessment. Review as appropriate. <p>Refer related standards as required eg hypertension, diabetes</p>
Cardiac Defibrillator (AICD)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has a cardiac-defibrillator implanted for ventricular arrhythmias.
Cardiac Pacemaker	<p>The person should not perform Safety Critical Work for at least one month after insertion of pacemaker.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If a cardiac pacemaker is required. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist with expertise in electrophysiology and the nature of the work:</p> <ul style="list-style-type: none"> • At least 1 month after insertion of the cardiac pacemaker; and • After consideration of the relative risks of pacemaker dysfunction (see also Cardiac Defibrillator).
Congenital Disorders	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has a complicated congenital heart disorder. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • If there is a minor congenital heart disorder such as pulmonary stenosis, atrial septal defect, small ventricular septal defect, bicuspid aortic valve, patent ductus arteriosus or mild coarctation of the aorta; and • There are no other disqualifying conditions.
Coronary Artery Bypass Grafting (CABG)	<p>The person should not perform Safety Critical Work for at least three months after CABG.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • Following CABG. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • At least 3 months after CABG; and • There is minimal residual musculoskeletal pain after the chest surgery; and • If the clinical history is one of minimal symptoms; and (cont...)

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES (CONT)	
CONDITION	CRITERIA
Coronary Artery Bypass Grafting (CABG) (continued)	<ul style="list-style-type: none"> • There is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and • There is no evidence of severe ischaemia, that is, less than 2mm ST segment depression on an exercise ECG and absence of a large defect on a stress perfusion scan; and • There is an ejection fraction of 40% or over. <p>The presence of other risk factors should also be considered.</p>
Deep Vein Thrombosis (DVT)	<p>The non-working period following DVT should be determined by the treating specialist.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person suffers deep vein thrombosis which is liable to recurrence or embolus. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist and the nature of the work:</p> <ul style="list-style-type: none"> • Following an appropriate non-working period; and • Depending on the cause of the thrombosis and the response to treatment.
Dilated Cardiomyopathy	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has a dilated cardiomyopathy. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • If the ejection fraction is greater than 40%.
ECG Changes: Strain Patterns, Bundle Branch Blocks or Heart Block	<p>An ECG is only required if clinically indicated.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has an electrocardiographic abnormality, for example left bundle branch block, pre-excitation or changes suggestive of myocardial ischaemia or previous myocardial infarction. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • If the condition has been cured surgically; or • If the condition has been successfully treated medically for at least 3 months; or • There is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and • There are no other disqualifying conditions.
Heart Failure	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has heart failure. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • If there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol); and • There is an ejection fraction of 40% or over; and • There is a satisfactory response to treatment; and • The underlying cause of the heart failure is considered.
Heart/Lung Transplant	<p>The person should not perform Safety Critical Work for at least three months post-transplant.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has had a heart or heart/lung transplant. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a transplant cardiologist and the nature of the work.</p>

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES (CONT)	
CONDITION	CRITERIA
Hypertension	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person's sitting blood pressure is consistently 200/110 or greater (treated or untreated); or • If there is end organ damage (cardiac, cerebral, or retinal) which will impair safe working; or • If treatment results in marked postural hypotension or impaired alertness. <p>The presence of other risk factors should also be considered.</p> <p>Persons with blood pressure greater than 200/110 should be classified Temporarily Unfit for Duty until fully assessed and the opinion of a cardiologist obtained. Fitness for Duty Subject to Review may be considered if treatment is satisfactory with blood pressure less than 200/110 over a four week follow-up period.</p> <p>Persons with blood pressure between 150/95 – 200/110 may be classed Fit for Duty Subject to Review at least 3 monthly. A blood pressure of less than 150/95 should be obtained within 9 months. If not the patient should be classed Unfit for Duty.</p> <p>Persons with blood pressure less than 150/95 may be classed Fit for Duty Subject to Review.</p> <p>Persons with blood pressure less than 140/90 who obtain this level only after treatment should be classed Fit for Duty Subject to Review.</p>
Hypertrophic Cardiomyopathy (HCM)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has HCM. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> • If the person is asymptomatic; and • The left ventricular ejection fraction is >40; and • There is an exercise tolerance of ≥90% of the age/sex predicted exercise capacity on the Bruce Treadmill Test (or equivalent protocol) without significant cardiac symptoms or significant ST segment (>2mm) shift; and • An absence of severe left ventricular hypertrophy, a family history of sudden death, or ventricular arrhythmia on Holter testing.
Pulmonary Embolism	<p>The non-working period following pulmonary embolism should be determined by the treating specialist.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has suffered a pulmonary embolism. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work:</p> <ul style="list-style-type: none"> • Following an appropriate non-working period; and • Depending on the cause of the embolus and response to treatment.
Stroke	See Neurological Disorders.
Syncope due to Hypotension (Vasovagal and autonomic dysfunction)	<p>The person should not perform Safety Critical Work for at least three months after syncope.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the condition is severe enough to cause episodes of loss of consciousness without warning. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work depending on:</p> <ul style="list-style-type: none"> • Identification of the underlying cause; and/or • The institution of satisfactory treatment.
Valvular Heart Disease	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has any history or evidence of valve disease, with or without surgical repair or replacement, associated with symptoms or a history of, embolism, arrhythmia, cardiac enlargement (on chest X-ray greater than 16cm), abnormal ECG, high blood pressure; or • If the person is taking anti-coagulants. (cont...)

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – CARDIOVASCULAR DISEASES (CONT)	
CONDITION	CRITERIA
Valvular Heart Disease (continued)	<p>Fit for Duty Subject to Review may be recommended noting the criteria specified above in relation to anti-coagulant therapy; or</p> <ul style="list-style-type: none"> If mitral stenosis is present with echocardiograph evidence of moderate (valve area <1.5cm²) or severe stenosis. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a cardiologist and the nature of the work:</p> <ul style="list-style-type: none"> If the person's cardiological assessment shows mild valvular disease of no haemodynamic significance, and there is no other cardiac condition per this Volume which would render the person unfit to perform Safety Critical Work; or Three months following successful surgery and there is no other cardiac condition per this Volume which would render the person unfit to perform Safety Critical Work.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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5. DIABETES

5.1 RELEVANCE TO SAFETY CRITICAL WORK

Diabetes may affect the ability to perform Safety Critical Work due to sudden loss of concentration and loss of ability to control machinery. **This is particularly relevant to Category 1 High Level Safety Critical Workers but confusion may also affect judgement that is relevant to both Category 1 and 2 Safety Critical Workers.**

Diabetes may affect a person's ability to perform Safety Critical Work, either through loss of consciousness in a hypoglycaemic episode or from end organ effects on relevant functions, including effects on vision, the heart, the peripheral nerves and vasculature of the extremities particularly the feet.

The main hazard in Safety Critical Workers with insulin requiring diabetes is the unexpected occurrence of hypoglycaemia.

5.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table overleaf.

For diabetes-related end organ damage, for example diabetic retinopathy, see the Vision and Eye Disorders chapter. The presence of diabetes is an important factor in the Cardiac Risk Score for Category 1 Safety Critical Workers (refer *Cardiovascular Diseases*).

Adequacy of control may be assessed by tests including glycosylated haemoglobin and review of home blood glucose monitoring records.

Hypoglycaemia

Hypoglycaemia causing collapse is particularly important in Safety Critical Workers.

A *defined* hypoglycaemic event relevant to Safety Critical Work is one of sufficient severity to cause impairment of perception, impairment of motor skills or consciousness, or abnormal behaviour. It is to be distinguished from mild hypoglycaemic symptoms such as sweating, tremulousness, hunger and tingling around the mouth which are common occurrences in the life of a person with diabetes treated with insulin and some hypoglycaemic agents.

People with diabetes are trained to aim for normal glucose levels in order to prevent long-term end organ damage due to hyperglycaemia. This presents a challenge for managing workers to minimise risk of hypoglycaemia.

Hypoglycaemia may be caused by many factors including non-compliance or alteration to medication, unexpected exertion or irregular meals. Irregular meals may be an important consideration with long distance operation or those operating on shifts.

Impairment of consciousness and judgment may develop rapidly and result in the loss of control of

a train or tram. Loss of awareness of hypoglycaemia (hypoglycaemic unawareness) is an important consideration. People with long standing diabetes can develop unawareness of the early symptoms of hypoglycaemia, especially those individuals frequently experiencing low blood glucose levels. They can progress directly into the more severe stage of brain and nervous system dysfunction, although the changes can be very subtle initially. Individuals who are known to them, such as family members, often recognise the initial stages of a slight mood change or impaired judgement or a little clumsiness as an early hypoglycaemic warning in a person with diabetes treated with insulin.

When a Safety Critical Worker with insulin-dependent diabetes is classed Fit for Duty Subject to Review the worker should keep a diary of blood glucose levels, taking rosters into account, as agreed with the examining doctor - partly so the worker knows they are safe for work and partly so control of their diabetes can be readily checked at their triggered review.

When assessing a worker with insulin treated diabetes an annual report from the person's general practitioner, or an independent specialist physician or endocrinologist is recommended. The report should include details of general health, indication of satisfactory diabetes control and freedom from severe complications.

The frequency of any mild hypoglycaemic attacks and of any significant hypoglycaemia should be recorded. Hypoglycaemic unawareness may be diagnosed if there is self-metered blood glucose levels of <3.0 on repeated occasions without neurohumoral symptoms. Whenever hypoglycaemic unawareness is suspected specialist review is advisable. Recommendations may include blood glucose awareness training (BGAT), education and changes in management.

It is sometimes important to interview family members, as people with diabetes are often reluctant to admit they have been suffering from hypoglycaemic episodes as they are clearly aware of their significance in terms of their employability. However, such inquiries must be with the person's consent. If an individual is subject to lack of awareness of hypoglycaemic symptomatology, then they are unsuitable for working roles in which they are responsible for Safety Critical Work.

The worker who has a defined hypoglycaemic episode or experiences a hypoglycaemic episode whilst working should be classified as Temporarily Unfit for Duty and should not perform Safety Critical Work until they have been cleared by the specialist.

The worker should also be advised to take appropriate precautionary steps to avoid hypoglycaemic episodes, for example:

- self monitoring of blood glucose levels;
- carrying of glucose whilst working;

- compliance with specified review periods (general practitioner or specialist); and
- cessation of Safety Critical Work should a hypoglycaemic episode occur.

Job modification such as altered rosters to help with stability of control or two person crews may be considered.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – DIABETES	
CONDITION	CRITERIA
Diabetes controlled by diet alone	A person with Diabetes controlled by diet alone, without severe complications, may perform Safety Critical Work. They should be reviewed periodically regarding progression of the illness.
Non-Insulin Requiring Type 2 Diabetes Mellitus	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has Non-Insulin Requiring Diabetes Mellitus on oral hypoglycaemic agents or with severe complications. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in Diabetes or Endocrinology and the nature of the work if:</p> <ul style="list-style-type: none"> • the condition is well controlled and the person is compliant with treatment; and • there is an absence of defined hypoglycaemic episodes as assessed by the specialist; and • the person has awareness (sensation) of hypoglycaemia; and • the person is taking agents that provide the minimum risk of hypoglycaemia; and • there is an absence of end organ effects that may affect working per these Standards. <p>A person may be classified Fit for Duty Subject to Review pending review by a specialist if there is sufficient evidence that the person is well-controlled, including discussion with the persons treating doctor/GP.</p>
Insulin- Requiring Diabetes Mellitus (both Types 1 and 2)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has Insulin Requiring Diabetes Mellitus. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in Diabetes or Endocrinology and the nature of the work (avoidance of collapse is particularly important in Category 1 tasks) and subject to at least annual review if:</p> <ul style="list-style-type: none"> • the condition is well controlled and the person is compliant with treatment; and • there is an absence of defined hypoglycaemic episodes as assessed by the specialist; and • the person has awareness (sensation) of hypoglycaemia; and • the person is taking agents that provide the minimum risk of hypoglycaemia; and • the person maintains a diary of blood sugar levels; and • there is an absence of end organ effects that may affect working per these Guidelines. <p>A person may be classified Fit for Duty Subject to Review pending review by a specialist if there is sufficient evidence that the person has diabetes which is well-controlled. This may require discussion with the person's GP with their consent.</p> <p>Fitness for duty subject to job modification, such as altered rosters or two person crews may be considered.</p> <p>In the event of a defined hypoglycaemic episode occurring in a person with previously well-controlled diabetes they should be immediately classed Temporarily Unfit for Duty, and should not perform Safety Critical Work for a period determined by a specialist.</p>

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms, which could have implications for their job, but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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6. DRUGS – ILLICIT

6.1 RELEVANCE TO SAFETY CRITICAL WORK

Drug impairment and Legislative Requirements

Many of the physiological effects of illicit drugs are similar to both alcohol and psychoactive prescription drugs. Their usage is therefore likely to cause a significant safety hazard to rail safety work. This is particularly so where illicit drugs are used in combination with prescription drugs or alcohol.

All states and territories therefore require accredited rail organisations to ensure that rail safety workers are not affected by drugs when performing rail safety duties. The specific provisions vary between the jurisdictions however legislative provisions and/or individual organisation policy generally address requirements for reporting of drug impairment by workers as well as testing for impairment. Testing may include pre-placement testing, "for cause" or triggered testing or random testing.

These medical standards support alcohol and drug policies through the provision of advice to authorised health professionals regarding the management of suspected impairment at the time of health assessment and the interpretation of drug screen results. However specific procedures for drug and alcohol screening are beyond the scope of this standard.

The authorised health professional should acquaint themselves with the legislation in their jurisdiction and the procedures of the organisation for which they provide services. Screening should be conducted in line with *Australian/New Zealand Standard 4308:2001: Procedures for the Collection, Detection and Quantification of Drugs of Abuse in Urine*.

Effect of Drugs on Rail Safety Work

Illicit drugs are by their nature psychoactive (or psychotropic). This means their detrimental effects in safety terms are not limited to their demonstrated physiological effects on the workers physical skills, but extend to their psychological, or behavioural effects. Those under the influence of these drugs have a higher propensity to behave in a manner incompatible with safe working. This may involve but not be limited to, risk taking, aggression, feelings of vulnerability, narrowed attention and poor judgement.

Information regarding effects of stimulants on risk of accidents mainly comes from road crash data. Stimulant drugs such as amphetamines and cocaine, which produce a heightened sense of well being, uninhibited behaviour, increased aggression and risk taking behaviours obviously have a potential for causing accidents. These drugs have been used to combat fatigue and while they may initially increase alertness and

efficiency, their effect is notoriously unpredictable and may be accompanied by marked changes in mood and behaviour. The use of illicit (and licit) stimulants to counteract the effects of fatigue carries with it the risk of fatigue rebound. This is observed when the effect of the drug wears off and is associated with profound sleepiness, which can result in a driver suddenly falling asleep, with obvious consequent risk of accident.

There is little information about Safety Critical Work such as driving and the short or long-term effects of drugs such as LSD, heroin and designer drugs (for example, Ecstasy, Angel Dust), and no information specifically relevant to rail safety. However, the known clinical effects of these drugs indicate that they have adverse effects on driving skills and judgment. Given their significant affect on mood and behaviour, their use is clearly not compatible with Safety Critical Work.

Cannabis can impair psychomotor functions related to safety critical skills and has been shown to have adverse effects on driving skills and judgment. However, there is still debate about the duration of impairment outside laboratory experiments.

Methadone abuse is not compatible with Safety Critical Work. However, it is recognised that Methadone may be prescribed for narcotic addiction and in some circumstances such persons may be recommended Fit for Duty Subject to Review.

The combination of alcohol with illicit drugs is especially dangerous.

6.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table on page 45.

Careful individual assessment must be made of workers using illicit psychoactive drugs. Additional advice from those involved in specialised treatment centres will frequently be necessary and ongoing assessment is likely to be crucial, including blood tests. Patients with 'dual diagnosis' in particular may require specialist assessment regarding working.

Users of illicit drugs are unlikely to volunteer information about their condition. This creates a problem in identifying cases of illicit drug use.

The habitual use of illicit drugs is not tolerated in rail safety work. Occasional use of these drugs requires very careful assessment. Some companies may have a policy of counselling or disciplining the worker who is found to have an isolated case of drug use. The health professional should be aware of the organisation's policy in this regard.

Screening for illicit drugs may be required for pre-placement or Periodic Health Assessments

depending on local legislative requirements and organisational practices. Screening may also be required by management at a triggered assessment.

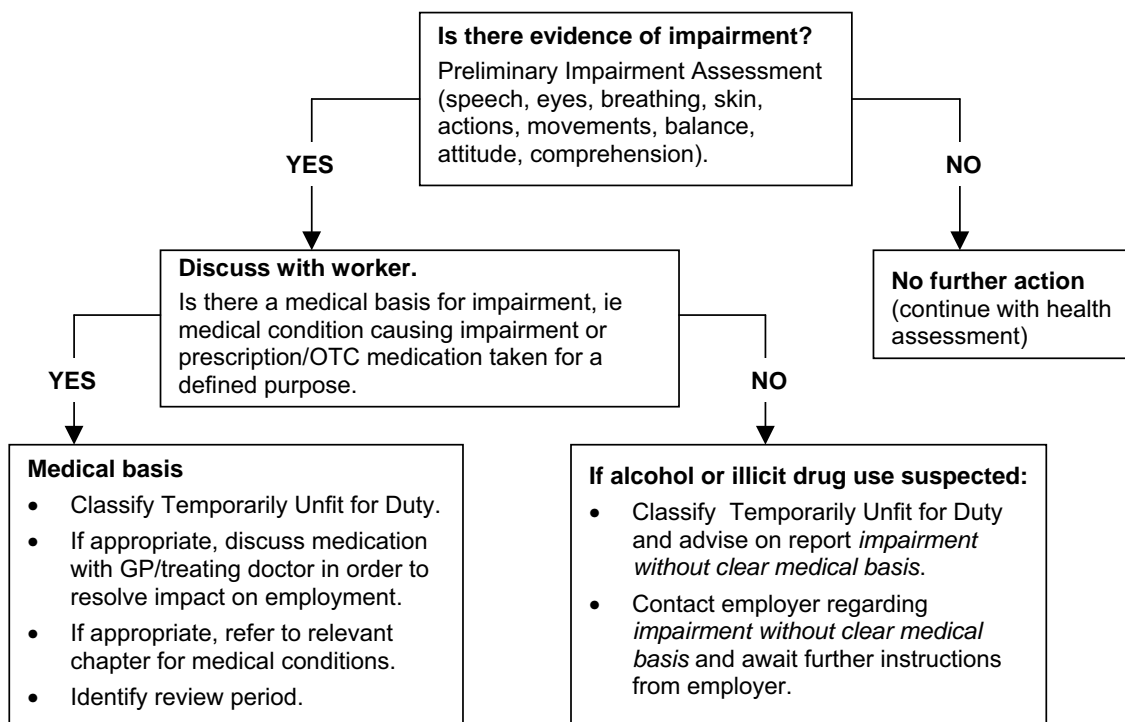
If during a Periodic Health Assessment, the health professional has a reasonable belief that the worker may be impaired by a drug (prescribed or illicit), based on observation of abnormal or uncharacteristic signs in relation to speech, eyes, breathing, skin, actions, movement, balance, attitude and comprehension, this should be discussed with the worker.

Where no satisfactory medical basis for impairment is established, (that is a prescription medication or OTC drug taken for a defined purpose, or a medical condition) the worker should be classified as Temporarily Unfit for Duty Subject to Review. Management should be contacted and advised that the person has impairment for which no medical basis could be found. Management will then direct the steps to be taken which may include a drug screen. This is illustrated in Diagram 8.

Interpretation of drug screen results is a difficult area and referral to a doctor who specialises in reviewing positive results may be appropriate in some cases. The most common illicit drug detected is cannabis and its metabolites. Generally a level of 50ng/mL on GCMS is considered to be positive but this can be difficult to interpret because of the long half life of cannabis and also because the detected level does not necessarily correspond to the level of impairment. Nevertheless, the impact of cannabis use on the functioning of the rail safety worker's decision-making process cannot be underestimated.

Other illicit drugs such as heroin, cocaine and MDMA are less commonly found on drug screen because of their shorter half-lives and their relatively less common usages. A positive result for morphine on urinary analysis cannot be extrapolated to heroin use.

Diagram 8. Periodic Health Assessment – Management of possible impairment due to alcohol or drugs (illicit or prescription/OTC)



MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – DRUGS – ILLICIT	
CONDITION	CRITERIA
Impairment due to illicit drugs	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the worker is impaired by illicit drug/s. <p>Refer to Diagram 8 for management.</p>
Illicit drugs – Use and Dependence Narcotics, Analgesic abuse, Methadone (illicit use), and other illicit drug use	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If there is evidence of illicit drug use or dependence. <p>Fit for Duty Subject to Review may be recommended taking into account the opinion of an appropriate specialist and the nature of the work (note: avoidance of sudden incapacity is particularly important in Category 1 tasks):</p> <ul style="list-style-type: none"> for persons who are compliant with treatment for illicit drug addiction (including methadone or buprenorphine medication); and the severity of the addiction(s), the response to treatment and the working requirements are taken into account. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist, and the nature of the work where amphetamines/stimulants are prescribed for a medical condition, for example, ADHD.</p>

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case by case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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7. DRUGS – PRESCRIPTION AND OVER THE COUNTER (OTC).

7.1 RELEVANCE TO SAFETY CRITICAL WORK

Drug impairment and Legislative Requirements

Studies show that common medications prescribed for a number of illnesses, including anxiety and depression, can affect work performance and increase the likelihood of a rail incident.

All states and territories therefore require accredited rail organisations to ensure that rail safety workers are not affected by drugs when performing rail safety duties. The specific provisions vary between the jurisdictions however legislative provisions and/or individual organisation policy generally address requirements for reporting of drug impairment by workers as well as testing for impairment. Testing may include pre-placement testing, “for cause” or triggered testing or random testing.

These medical standards support alcohol and drug policies through the provision of advice to authorised health professionals regarding the management of suspected impairment at the time of health assessment and the interpretation of screening results. However specific procedures for drug and alcohol screening are beyond the scope of this standard.

The authorised health professional should acquaint themselves with the legislation in their jurisdiction and the procedures of the organisation for which they provide services. Screening should be conducted in line with *Australian/New Zealand Standard 4308:2001: Procedures for the Collection, Detection and Quantification of Drugs of Abuse in Urine*.

condition being treated does not itself preclude working, for example, drowsiness due to (older generation) antihistamines for hay fever. The subjective effects of the drug should be determined by a test dose before working is attempted.

Legitimate long-term medication for therapy or prophylaxis should not automatically preclude fitness for duty. Many drugs, however can diminish the capacity for rail safety work safely in addition to any such effects of the disorder being treated. Successful treatment will often increase safety by control of the disorder, for example, effective prevention of seizures. Issues relating to drug treatment of chronic disorders such as epilepsy, psychiatric conditions and diabetes are dealt with in the relevant sections devoted to these diseases.

Workers receiving continuing long term drug treatment should be evaluated for their reliability in taking the drugs according to directions and their understanding of the possibility that the effect of the drug may be unexpectedly affected by factors such as drug interactions. They should also be assessed for their acceptance that their medicines can have undesired consequences that may affect their ability to work safely.

Combined effects of prescribed and OTC medications should also be considered. When such medicine is prescribed or dispensed adequate counselling should be provided and labelling requirements complied with.

There are many useful community information resources for patients, including the Australian Drug Foundation website www.adf.org.au/dd/index.htm.

7.2 GENERAL MANAGEMENT GUIDELINES

In all cases when health professionals are prescribing or dispensing medications (including OTC and alternative medications), they should consider any possible effects on safe working skills and advise the worker on what they should do to avoid impairment. Failure to do so may have medico-legal consequences for the health professional in the event of a rail incident involving the worker.

Prescribing or dispensing of any drug for the first time should be accompanied by a general warning to the worker to be vigilant for responses that may affect ordinary activities including Safety Critical Work. A similar warning should accompany changes in dose, or the addition of other drug treatment.

Problems affecting fitness for rail safety work may arise with short-term use of drugs when the

7.3 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table on page 48.

Safety Critical Workers are required to take all current medication or a list to the health assessment appointment for the purposes of identifying any potential impact on rail safety work.

Drug screening may be required for Pre-placement or Periodic Health Assessments depending on local legislative requirements and organisational practices. Screening may also be required by management at a triggered assessment. Most of the psychoactive prescription drugs are not detected on the standard drug tests.

False positive results may occur and will need to be interpreted by the authorised health

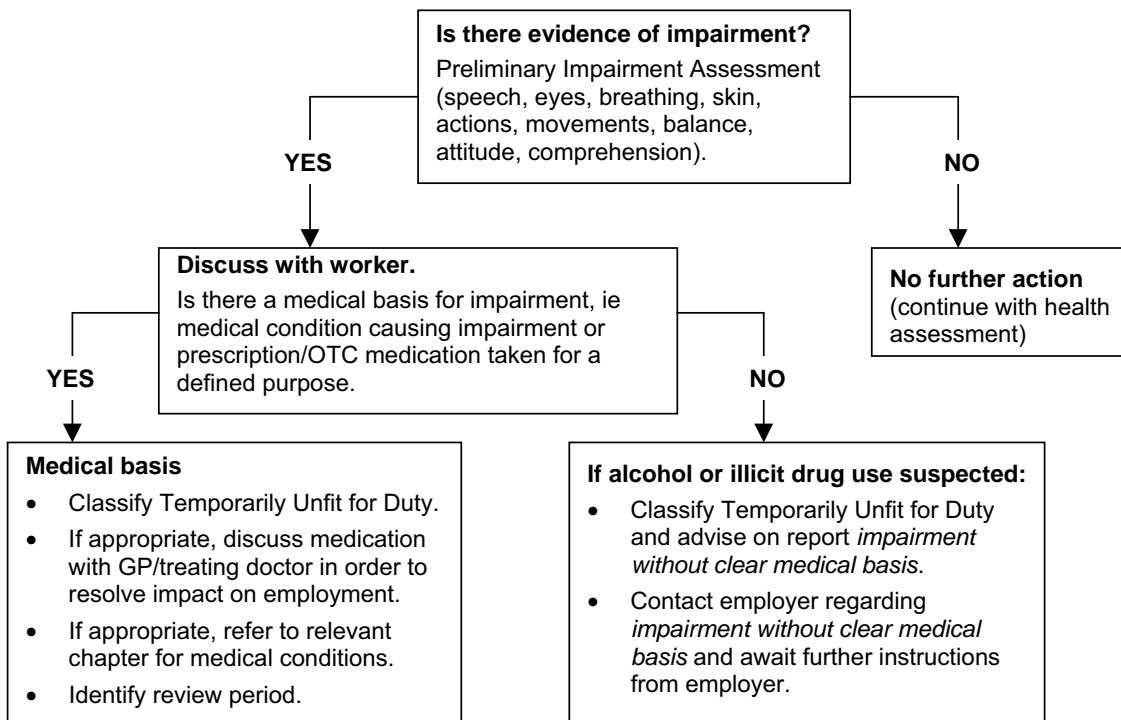
professional (or by referral to a doctor who specialises in reviewing positive drug tests). This will include interview of the worker regarding potential causes of the positive result. For example, cough and cold preparations usually contain a mixture of drugs which may be detected on the initial urinary drug screen. Similarly a positive result for morphine and codeine may result from the ingestion of codeine medication, often available over the counter. A positive morphine result may also result from the ingestion of poppy seeds.

If during a Periodic Health Assessment, the health professional has a reasonable belief that the worker may be impaired by a drug (prescribed or illicit), based on observation of abnormal or uncharacteristic signs in relation to speech, eyes, breathing, skin, actions, movement, balance, attitude and comprehension) this should be discussed with the worker. If a medical basis for possible

impairment is established (that is, a prescription medication or OTC drug is being taken for a defined purpose, or a medical condition), the health professional should classify the worker as Temporarily Unfit for Duty Subject to Review and identify a review date. Where appropriate, the worker's GP may be contacted to discuss the impact of their current treatment on their fitness for duty.

Where there is not a satisfactory medical basis for impairment, (that is a prescription medication or OTC drug taken for a defined purpose, or a medical condition), the worker should be classified as Temporarily Unfit for Duty Subject to Review. The rail organisation should be contacted and advised that the person has impairment for which no medical basis could be found. The rail organisation will then direct the steps to be taken as shown in Diagram 9).

Diagram 9. Periodic Health Assessment – Management of possible impairment due to alcohol or drugs (illicit or prescription/OTC)



MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – DRUGS – PRESCRIPTION AND OTC	
CONDITION	CRITERIA
Impairment due to prescription or OTC drugs	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person is impaired due to the effects of prescription or OTC drugs. <p>Refer to Diagram 9 for management.</p>

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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8. EPILEPSY

8.1 RELEVANCE TO SAFETY CRITICAL WORK

Epilepsy may affect the ability to perform Safety Critical Work due to sudden loss of concentration and loss of ability to control machinery. This is particularly relevant to Category 1 High Level Safety Critical Workers but post ictal confusion may also affect judgement that is relevant to both Category 1 and 2 Safety Critical Workers.

Epilepsy is a common disorder with a cumulative incidence of 2% of the population, with 0.5% affected and taking medication at any one time⁵. Fortunately, the majority of cases respond well to treatment with a terminal remission rate of 80% or more⁵⁻¹¹. The majority suffer few seizures in a lifetime and about half will have no further seizures in the first one or two years after starting treatment⁸⁻¹⁰. Some cases may eventually cease medication and in other selected cases surgery has proven beneficial.

Seizures vary considerably, some being purely subjective experiences, for example, some simple partial seizures but the majority involve some impairment of consciousness (for example, absence and complex partial seizures) or loss of control (for example, focal motor, simple or complex partial or myoclonic seizures). Convulsive (tonic-clonic) seizures may be generalised from onset or secondarily generalised with partial onset. Seizures associated with loss of awareness, even if brief or subtle, or loss of motor control have the potential to impair the ability to perform Safety Critical Work^{12,13}.

Information regarding risk of accidents due to epilepsy mainly comes from road crash data. Estimates of the relative casualty crash risk of drivers with epilepsy compared with other drivers has varied from 1.0 to 1.95¹⁴⁻¹⁶, (and in one exceptional study 7.0¹⁷). Around 11% of crashes of drivers with epilepsy are felt to be seizure-related¹⁴. Reported estimates of the prevalence of epilepsy-related crashes vary between 0.01% and 0.3% of all crashes^{2,18,22}.

Complex partial seizures without aura, secondarily generalised seizures and generalised tonic-clonic seizures are the types most implicated in road crashes. Simple partial seizures, complex partial seizures with aura and absence seizures are less frequently, and myoclonic seizures are rarely implicated²³. Other examples include seizures that have occurred only during sleep, some, but not all, simple partial seizures ('auras'), and seizures that are consistently preceded by a prolonged warning or premonition (provided that full control is retained during the period of such premonitory symptoms)¹³. There are also examples where seizures only occur at a particular time of day, especially in the first hour after awakening.

8.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table overleaf.

A confirmed diagnosis of epilepsy will mean that the criteria for fit for duty are not met.

It is extremely important that the worker's specific epilepsy syndrome and seizure types are identified so that an adequate evaluation of the person's safety can be undertaken (including the risk of further seizures) and the appropriate therapy instituted. Thus any Safety Critical Worker experiencing a seizure or recurrent seizures should be referred to an appropriate consultant for detailed evaluation.

The table recommends seizure-free periods after which resumption of work may be permitted on the advice of a suitably qualified consultant. In considering the recommended seizure-free period, the longer period should generally be applied, but a shorter period may be accepted on the recommendation of a physician experienced in the management of epilepsy. Relevant considerations will include response to treatment, previous seizure frequency, the nature of seizures, the syndromic diagnosis and the patient's reliability and compliance with treatment. Further considerations are the duties to be performed and the hours to be worked.

In the assessment of worker fitness for duty and ongoing disease management the health professional should take the following into account:

- In order to be classified Fit for Duty Subject to Review the worker must have been free of seizures for the specified period (see medical standards table overleaf).
- The worker must continue to take anti-epileptic medication regularly when and as prescribed. They should be advised that this is a requirement of their continued ability to undertake rail safety work.
- The worker should be made aware of the impact of fatigue on their condition and should ensure adequate sleep. They should be advised that they must not drive/work if sleep deprived.
- The worker should also avoid other circumstances or the use of substances that are known to increase the risk of seizures eg alcohol.

All Safety Critical Workers who need active management of epilepsy should be under review, including where necessary, at least annual specialist appraisal. The use of an independent specialist may be considered.

The Initial or Isolated Seizure: The occurrence of a seizure in a Safety Critical Worker warrants consultant assessment. The assessment may

reveal that the seizure was likely to have been an isolated event, or alternatively a diagnosis of epilepsy may be made. The worker should be classified Temporarily Unfit for Duty until the diagnosis and response to treatment is determined and a decision can be made regarding their fitness for duty.

Where seizures occur only at a particular time of day (for example, in the first hour after awakening) a recommendation may be made regarding Fit for Duty Subject to Job Modification, limiting working to certain hours or circumstances. Workers experiencing such safe or possibly safe seizures must be the subject of consultant review and their assessment must include appropriate documentation of the factors that are important to their safety, and the corroboration of eye witnesses whenever possible.

Recurrent Seizure: In the event of a recurrent seizure in a person previously seizure-free and classed Fit for Duty Subject to Review, a consultant review should be obtained. A recurring seizure in a Safety Critical Worker will require immediate suspension from Safety Critical Work.

Medication Non-compliance: Where non-compliance with anti-epileptic medication is suspected, drug monitoring may be required where appropriate.

Medication Withdrawal: Withdrawal of anti-epileptic medication is usually not compatible with continued Safety Critical Work, unless explicitly recommended and supervised by a consultant specialised in epilepsy.

Concurrent Conditions: Where epilepsy is associated with other impairments or conditions, the relevant sections covering those disorders should also be consulted.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – EPILEPSY	
CONDITION	CRITERIA
<p>Initial or Isolated Seizures (an isolated seizure is not synonymous with Epilepsy)</p>	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has had a seizure due to any cause. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in epilepsy and the nature of the work:</p> <ul style="list-style-type: none"> • If the person has had a single provoked seizure event; and • Provocative factors can be avoided reliably; and • Has been seizure free for one year; and • Takes no anti-epileptic medication; and • The EEG shows no epileptiform activity.
<p>Epilepsy - <i>general requirements</i></p>	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has epilepsy. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in epilepsy (who may recommend variation of the seizure-free periods in exceptional circumstances), and the nature of the work (avoidance of collapse is particularly important in Category 1 tasks):</p> <ul style="list-style-type: none"> • If the person has a past history of febrile seizures or of benign childhood epilepsy; and • Does not take anti-epileptic medication; and • The EEG shows no epileptiform activity. <p>or</p> <ul style="list-style-type: none"> • If the person has a past history of a single seizure event; or of seizures occurring only under provocative circumstances that can be avoided reliably; and • Has been seizure free for five years; and • Takes no anti-epileptic medication; and • The EEG shows no epileptiform activity. <p>(continued overleaf)</p>

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – EPILEPSY (CONT)	
CONDITION	CRITERIA
Epilepsy - <i>general requirements</i> (continued)	or <ul style="list-style-type: none"> • If the person has epilepsy and is taking anti-epileptic medication; and • Maintains at least annual review and compliance; and • Has been seizure free for five years; and • Has had no more than three seizures in the preceding ten years; and • The EEG shows no epileptiform activity. or <ul style="list-style-type: none"> • If the person has epilepsy and has had surgical treatment; and • Maintains at least annual review; and • Has been seizure free for five years; and • The EEG shows no epileptiform activity. or <p>Taking into account the duties to be performed and the hours to be worked (with conditions including limited and/or restricted duties).</p> <ul style="list-style-type: none"> • If the person has epilepsy and is taking anti-epileptic medication; and • Maintains periodic review and compliance; and • Has been seizure free for five years; and • The EEG shows no epileptiform activity.
Epilepsy- Special situations	<p>Recurrent seizure</p> <p>Recurrence of seizure in a Safety Critical Worker requires immediate suspension from Safety Critical Work. Classify 'Temporarily Unfit for Duty' pending full assessment.</p> <p>Withdrawal of Anti-Epileptic Medication</p> <p>Withdrawal of anti-epileptic medication is not compatible with continued Safety Critical Work (unless advised by a specialist).</p>

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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9. GASTROINTESTINAL AND HEPATIC DISORDERS

9.1 RELEVANCE TO SAFETY CRITICAL WORK

Gastrointestinal and hepatic disorders may affect the ability to perform Safety Critical Work due to metabolic disturbances affecting mental function. However, there is only limited data to support the assumption of a higher crash rate as a result of gastrointestinal and hepatic disorders.

Hepatic Encephalopathy

Hepatic encephalopathy describes the spectrum of potentially reversible neuro-psychiatric abnormalities seen in patients with liver dysfunction after other neurological causes or metabolic causes are excluded. The vast majority of patients have established chronic liver disease with signs of chronic liver disease and sometimes those of encephalopathy such as asterixis and the fetor hepaticus.

Working ability will be impaired firstly because of the disturbed diurnal sleep pattern (insomnia and hypersomnia) but further by impaired consciousness with levels of consciousness potentially fluctuating. Impairment may also result from focal neurological signs which occasionally develop in such patients.

Treatment of hepatic encephalopathy is the treatment of the underlying liver disease and reversing of factors that can precipitate encephalopathy.

There is dispute regarding the cognitive function of patients with chronic liver disease and portal hypertension without signs of porta systemic encephalopathy. Two studies have addressed driving motor vehicles in this group of patients and in one study 60% of patients were considered unfit to drive and 25% considered

questionable. In a second study of real life driving conditions in Chicago the results in those patients studied were not different from healthy controls.

9.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table below.

As a general rule, gastrointestinal disorders should not interfere with a patient's ability to perform Safety Critical Work. Acute conditions require appropriate advice regarding working but usually have no impact on overall fitness for duty although conditions such as chronic inflammatory bowel disease and stomas will need individual consideration.

The diagnostic pointers to the presence of chronic liver disease include peripheral signs such as muscle wasting, spider telangiectasis and palmar erythema. Signs of hepatic decompensation will include jaundice, ascites oedema as well as the above, while signs of hepatic encephalopathy will include altered mentation, fetor hepaticus and asterixis.

Not to be ignored are the potentially subtle disturbances of mentation that can occur in the absence of overt liver failure. An indication that hepatic encephalopathy is developing might include a disturbed sleep pattern. Patients may also develop fleeting neurological signs such as hemiplegia.

Assessment of workers with chronic liver disease for fit for duty will require referral to a specialist whose predominant interest is liver disease.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – GASTROINTESTINAL DISORDERS	
CONDITION	CRITERIA
Hepatic Failure	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has chronic liver disease and clinical evidence of hepatic encephalopathy. <p>If the person has chronic liver disease and no overt evidence of hepatic encephalopathy they may still have impaired cognitive and motor skills and will need to be assessed on an individual basis by their hepatologist.</p>
Liver Transplants	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> After a liver transplant. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist and the nature of the work:</p> <ul style="list-style-type: none"> Noting the reason for the transplant; and Taking into account the stability of the transplant and the biochemical and haemodynamic response.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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10. HEARING

10.1 RELEVANCE TO SAFETY CRITICAL WORK

Substantial hearing loss may affect the ability to perform Safety Critical Work due to the inability to communicate or failure to hear sounds indicating a hazard.

There are two main groups of standards, one for drivers and one for other rail safety workers. Both standards have similar screening thresholds based on speech frequencies but the subsequent management differs.

Train Drivers. Train drivers work in cabs with background noise that varies but may reach up to 85dB. Drivers need to hear radio communication from central control as well as alarm systems and track detonators. Binaural hearing is helpful in distinguishing speech in a noisy environment. Most radios in engine cabs can be amplified to help hearing against the background noise.

Because of the variation in cab noise the standards are not necessarily applicable across all driving tasks. Individual risk assessments are required in conjunction with a specialist in occupational medicine to determine the appropriate criteria and examinations. However if variation is made from the national medical standard this must be identified on the medical forms and its relevance to portability emphasised to all parties.

Other rail safety workers. Workers such as shunters and track maintenance personnel and many others who work in yards or near tracks need to be able to hear a warning sound from a train horn for their own safety. A horn is intended to emit about 88dB at 200m in the country and 85db at 100m in towns (draft national standard). The hearing standard has been set with a wide margin of safety to allow for adverse environmental conditions and the worker facing away from the train.

Note: workers who are at any time working directly on the track should be regarded as functionally deaf and blind. A hearing standard for their safety is not appropriate and they require suitable track protection. Also this hearing standard and testing should not be confused with the requirements for audiometric monitoring required by OHS regulations for noise-exposed workers.

Radio Communication. Radio communication is commonly used about rail yards eg shunters, and along the track eg flagman. Train signallers and controllers need to communicate via radio or mobile phone in a quiet background. With the exception of drivers, the ability to speak and hear radio communication is a matter for simple assessment at placement (and thereafter) by management and no medical standard is set.

Tram Drivers. For tram drivers, the main safety requirement is to hear other traffic on the road.

While driving ability per se might not be affected by a hearing deficiency, responsiveness to critical events is an important safety consideration for drivers. These workers therefore require a reasonable level of hearing in order to ensure their awareness of changes in engine or other noises which may signal developing problems or hearing emergency vehicles or other warning horns, bells, sirens.

Hearing Aids and Cochlear Implants.

Hearing aids, particularly modern (digital) ones present particular problems in the rail industry. Modern aids have the ability to recognise speech patterns and to screen out non-speech noise which helps the user understand speech, but diminishes the ability to hear important 'noise' such as a warning alarm or detonators when the user is in a cab, or horns of trains when about the track. In addition modern hearing aids may have directional microphones which facilitate hearing speech when facing a person and help exclude background 'noise'. However forward directional microphones would adversely affect a driver's ability to hear speech from a speaker positioned behind them, or a wearer walking about the tracks may not hear a warning horn sounded from behind. All hearing aids amplify sound and if this is already loud (as in some cabs or near locomotives) may contribute to noise induced hearing loss (NIHL). Workers with a cochlear implant will generally have difficulty with speech recognition in occupational background noise. A hearing aid or cochlear implant may suddenly malfunction.

For these reasons, hearing aids or cochlear implants generally should not be used in rail safety work. Exemptions may be made by an ENT surgeon based on careful consideration of the job requirements in relation to the type of hearing aid or cochlear implant and a practical test.

10.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Drivers. Medical criteria for fitness for duty are outlined in the table on page 57. Compliance with the standard should be initially assessed by audiometry as per Australian Standard AS 2586-1983 and if the standard is not met a practical test may be arranged.

Practical tests of hearing may be considered for drivers who fail the ordinary medical examinations. However the test is not intended to imply any relaxation of the standard for hearing. Different railway systems may differ with respect to the hearing requirements because of the nature of equipment and tasks. Therefore, it is not sensible or safe to apply a uniform practical test nationally. The following points outline the principles of conducting a test within a particular railway. The results of such a test are not necessarily valid for any other

railway. They should be conducted by persons knowledgeable of the work.

Principles of Practical Hearing Tests

- The noise in the cab of a train may range up to 85dB. It is essential that the driver be able to detect and hear radio-communications, warning alerts from equipment such as vigilance controls, and track detonators against this background noise. Hearing aids may be used in the test (but see above).
 - The test should be based on the ability of the subject to hear typical "train orders" likely to be transmitted on the radio-communication system. This test will need to be developed in conjunction with experienced engineers and drivers and hearing experts.
 - A control subject should be selected. Their hearing should be confirmed to be normal on a recent audiogram to be a valid control. (Some drivers lose hearing due to noise induced hearing loss or other causes and are not valid controls).
 - The subject and control ride in the cab of a train which then simulates a range of typical driving conditions such as working under load, dynamic braking, etc.
- The test involves a series (~20) of typical track instructions and a few emergency instructions being communicated over the radio system, intended to simulate typical conditions.
 - The subject must obtain a score similar to the control to pass.
 - If the subject passes they may be permitted to drive on trains that have similar cab noise levels and that utilise a radio-communication system similar to that on which they were tested. They require a further practical test to be permitted to drive on systems with substantially different noise levels and communication systems.
 - Subjects should be classed as "Fit for Duty Subject to Review" and their audiogram reviewed periodically. If there is appreciable deterioration the practical test should be repeated.

Other workers. Workers such as shunters and others who are around the track require hearing for their own safety and should meet the standards as set out for ATTP (Part C2).

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – HEARING	
CONDITION	CRITERIA
Hearing – Train Drivers	<p>Compliance with the standard should be initially assessed by audiometry without hearing aids or use of a cochlear implant.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has an <i>unaided</i> average hearing threshold level of equal to or worse than 40dB in the better ear. (Average hearing threshold is the simple average of pure tone air conduction thresholds at 500, 1000, 2000 Hz in each ear). <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an ENT specialist, the nature of the work and successful completion of a practical test (refer text for details of requirements of a practical test).</p> <ul style="list-style-type: none"> • The ENT Specialist should have regard to: <ol style="list-style-type: none"> 1. The hearing levels in each ear, and 2. The nature of the relevant background occupational noise, and 3. The nature of the duties of Safety Critical Workers including efficient and reliable use of communication devices including mobile phones and radio-communication devices, and the need to reliably detect emergency alarms against background noise. • Refer to text regarding use of hearing aids. • Cochlear implantees should be assessed on an individual basis by an ENT surgeon with consideration of the characteristics of the implant including the risk of sudden device failure, the nature of the relevant background noise, and the nature of the duties of Safety Critical Workers including efficient and reliable use of communication devices including mobile phones and radio-communication devices, and the need to reliably detect emergency alarms against background noise. A practical test must be passed.
Hearing - Others	Refer criteria for Around the Track Personnel, PART 2B.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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11. HIV / AIDS

11.1 RELEVANCE TO SAFETY CRITICAL WORK

HIV/AIDS may affect the ability to perform Safety Critical Work due to impairment of mental function or other affects on the body. The human immunodeficiency virus (HIV) is highly neurotropic and may cause neurological effects which impact on Safety Critical Work ability. However the advent in recent years of highly active antiretroviral therapy (HAART) for patients has had a significant impact on their prognosis and their well-being. As a result, there has been a substantial reduction in neurological sequelae particularly AIDS dementia and progressive multifocal leukoencephalopathy (PML) so the

risks when performing Safety Critical Work are greatly reduced.

If the disease progresses to AIDS then various organs relevant to working may be affected, such as the eyes.

11.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Safety Critical Workers who are HIV positive or have AIDS and are under treatment may be recommended for Fit for Duty Subject to Review, providing they meet the criteria set out in this Volume for end organ damage which may arise as a complication of the disease, for example, vision.

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12. METABOLIC AND ENDOCRINE DISORDERS (Excluding Diabetes)

12.1 RELEVANCE TO SAFETY CRITICAL WORK

Metabolic and endocrine disorders may affect the ability to perform Safety Critical Work due to effect on mental function or other organs of the body. Metabolic or endocrine disorders (Addison's Disease, Adrenal or Cushing's Disease, Hyperthyroidism, Hypothyroidism, Parathyroid Disease, Pheochromocytoma, Pituitary Disorders, Insulinoma) can cause many symptoms ranging from generalised asthenia, localised muscle weakness, spasm to tetany, sudden episodes of dizziness or unconsciousness.

Unless controlled by adequate treatment, workers so afflicted may pose an increased safety risk.

12.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

There are no specific criteria regarding fit for duty for metabolic and endocrine diseases. Because of the diverse manifestation of these conditions, each person will require individual assessment.

If there is a real risk of acute loss of control then the criteria would not be met; a recommendation may be made for Fit for Duty Subject to Review dependent on stability of control of the condition and an appropriate specialists opinion obtained.

Specific defects which may be associated with an endocrine disorder may also need evaluation, for example, effects on visual field from pituitary tumours or exophthalmos in hyperthyroidism.

13. MUSCULOSKELETAL DISORDERS

13.1 RELEVANCE TO SAFETY CRITICAL WORK

Substantial musculoskeletal disorders may affect the ability to perform Safety Critical Work due to inability to adequately control machinery and perform bodily movements as required. Most Safety Critical Workers require soundness of limbs, neck, back and good balance although the specific requirements vary depending on the task. For example, typically:

- Driving requires good musculoskeletal capacities to:
 - sit and drive the train using arms and legs;
 - walk about the train on uneven track;
 - join heavy couplings, bend and check bogies;
 - enter and exit the cab to/from the ground in emergency.
- Flagman duties require good musculoskeletal capacity to:
 - move quickly over uneven track;
 - place detonators quickly and accurately on the track;
 - signal to trains.
- Shunting requires good musculoskeletal capacity to:
 - move over uneven track;
 - rapidly board/alight trucks or carriages;
 - open or close stiff, large coupling mechanisms;
 - switch points.

The musculoskeletal requirements of a job should be provided to the authorised health professional as part of the request for examination.

13.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty for Safety Critical Workers are outlined in the table overleaf.

It is not possible to detail all the tasks of Safety Critical Workers and the musculoskeletal criteria to be met in this Standard. Desirably the authorised health professional should be acquainted first hand with the job or at least be provided with the task analysis so as to conduct the examination with insight when matching demands and musculoskeletal capacities. An organisation may develop its own standards appropriate to the risk assessment of a job and with advice from an occupational physician.

The aim of a health assessment is to detect those Safety Critical Workers who may have difficulty in performing their duties, and to identify those workers who would benefit from job modification. However, modification to cabs and other equipment is usually difficult because drivers need to rotate between locomotives.

In many cases a functional assessment of a driver by a Principal Driver (in conjunction with an Occupational Therapist if necessary) may be helpful.

The driver should wear any prosthesis prescribed during an assessment by a Principal Driver.

Disability of Cervical Region: Good head movement is important to support viewing good fields of vision. Workers with severe neck pain and very reduced mobility including that arising from wearing soft collars or braces should be classified as Temporarily Unfit for Duty and should not perform Safety Critical Work for the duration of their treatment. Some loss of neck movement is allowable if the driver's cab is fitted with adequate outside mirrors. In the case of permanent disability, the criteria may not be met.

Disability of Thoracolumbar Region: Workers with severe pain and reduced mobility of the thoracolumbar region, including those required to wear a brace or body cast that severely limits mobility, should be classified as Temporarily Unfit for Duty and should not perform Safety Critical Work for the duration of their treatment. In the case of permanent disability, the criteria may not be met.

Arthritis: Painful joints may arise due to inflammatory or degenerative arthritis. Workers who have persistent pain and marked reduction in range of movement in shoulders, elbows, wrists, hands, hips, knees, ankles or feet may not meet the criteria. A driver may be assessed by a Principal Driver.

Post Surgery Including Joint Replacement: Workers should generally not perform Safety Critical Work for six weeks post major orthopaedic surgery. A Principal Driver's opinion may be obtained where appropriate if there is ongoing limitation of function.

Balance: agility of movement requires good balance which is assessed using the Romberg test. (Also refer *Vestibular Disorders* chapter).

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – MUSCULOSKELETAL DISORDERS	
CONDITION	CRITERIA
Musculoskeletal Disorders	<p>The musculoskeletal activities which are needed for Safety Critical Work as identified in the task analysis for the workers job should be carefully considered.</p> <p>The criteria of Fit for Duty are not met:</p> <ul style="list-style-type: none"> • if the ability to perform the activities needed for Safety Critical Work is inadequate. <p>Fit for Duty Subject to Review or Subject to Job Modification may be recommended, taking into account the opinion of a specialist or therapist and/or Principal Driver, and the nature of the work. A practical assessment may be helpful.</p>
ATTP requirements	Musculoskeletal criteria for Around the Track Personnel are included in PART 2B.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case by case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

14. NEUROLOGICAL DISORDERS (Excluding Epilepsy and Syncope)

14.1 RELEVANCE TO SAFETY CRITICAL WORK

Neurological disorders may affect the ability to perform Safety Critical Work due to the affect on mental function or the loss of control of other parts of the body.

At present only limited evidence can be cited about the incidence of accidents across a given population of Safety Critical Workers such as drivers suffering from a neurological disorder. However, it is very likely that symptoms which are common to many neurological conditions, such as potential spontaneous loss of consciousness, confusional states, impairment of muscular power and coordination are deleterious to Safety Critical Work. **Sudden incapacity, such as from a transient ischaemic attack is particularly relevant to Category 1 High Level Safety Critical Workers.**

14.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fit for duty are outlined in the table overleaf.

The worker with a neurological disorder must be assessed to determine whether the sum of symptoms and signs, being physical, mental and behavioural is compatible with Safety Critical Work.

Any impairment of consciousness or awareness, or the presence of confusion or loss of visual fields or vertigo, is usually incompatible with Safety Critical Work. Muscular power and coordination should be adequate to undertake work safely.

If the health professional is concerned about a worker's ability to work safely, the opinion of a Principal Driver or neuropsychologist may be helpful.

Dementia and Other Cognitive Impairments:

The person should not perform Safety Critical Work if there is significant impairment of memory, visuospatial skills, insight or judgement or if problematic hallucinations or delusions. Baseline and periodic review are required as most forms of cognitive impairment and dementia are progressive. If unsure in the case of a driver, refer to a Principal Driver for further assessment. Referral to a neuropsychologist may be helpful in cases of cognitive impairment.

Intellectual Impairment: Persons with intellectual impairment are not suitable for Safety Critical Work. Persons with minor degrees of impairment should be identified by selection (neuropsychological) tests at time of recruitment. Usually this is not a medical or health assessment matter.

Neuro-development Disorders. Specialist advice should be sought regarding safety Critical Workers who have complex conditions such as ADHD or Tourette's Syndrome.

Stroke: In the event of a stroke the worker should not perform Safety Critical Work for a minimum of one month post event (3 months for subarachnoid haemorrhage) if there is significant neurological, perceptual or cognitive deficit. Return to Safety Critical Work depends upon physician assessment and where appropriate, evaluation by a Principal Driver. A visual field defect will usually exclude a person from Safety Critical Work as will all but minor residual defects in accordance with these standards.

Transient Ischaemic Attacks: TIA may recur or be harbingers of a full stroke. Safety Critical Workers who have had only one transient ischaemic episode should be referred to an appropriate specialist to determine their fitness for duty. If an underlying cardiac pathology for such episodes is identified any recommendation for Fit for Duty Subject to Review, would be based upon the prognosis of that condition, and the likelihood of continued recurrence.

Multiple Sclerosis: Multiple Sclerosis may progress to cause poor coordination, weakness, vertigo, memory loss, significant cognitive impairment, or visual impairment, any of which may impair capacity to work safely. Where appropriate assessment by a Principal Driver (and possibly an Occupational Therapist) may be helpful.

Peripheral Neuropathy: Peripheral neuropathy may impair working due to difficulties with sensation (particularly proprioception) or severe weakness developing. Where appropriate assessment by a Principal Driver (and possibly an Occupational Therapist) may be helpful.

Limb Control: A loss of control of a limb due to paralysis, paresis or other neurological conditions needs to have the severity assessed on an individual basis. Where appropriate assessment by a Principal Driver may be helpful.

Intracranial Surgery: In the event of intracranial surgery the worker should not perform Safety Critical Work until cleared by a relevant specialist (neurosurgeon/neurologist). (See also Epilepsy – surgery).

Head Injury: A person who recovers from a loss of consciousness of less than 24 hours with no complications does not present any special risk. Similarly, immediate seizures which occur within 24 hours of a head injury are not considered to be epilepsy, but part of the acute process.

Workers who have had minor head injuries should not perform Safety Critical Work immediately afterwards. The occurrence of persisting functional disturbances requires careful assessment to determine fitness for duty.

This may include neuropsychological testing and assessment where appropriate by a Principal Driver as well as referral to a neurologist.

Migraine and Recurrent Headache: Attacks of migraine and recurrent headache are common and may impair a person's ability to concentrate and to work safely. Workers who suffer migraine and recurrent headaches should have their

symptoms and treatment reviewed. A plan of management if an attack occurs at work should be discussed and agreed with their supervisor as necessary. Provoking factors such as shift work, lighting and noise may need attention. In severe cases Fit for Duty Subject to Review may be recommended.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – NEUROLOGICAL DISORDERS	
CONDITION	CRITERIA
Berry Aneurysms and other vascular malformations of the brain	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has a berry aneurysm or other vascular malformation. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work:</p> <ul style="list-style-type: none"> After consideration of the risk and the benefits of any treatments.
Cerebral Palsy (See also Neuromuscular and/or Cognitive Disorders)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the capacity to control a vehicle is impaired due to musculoskeletal or cognitive or neurological causes. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work, and:</p> <ul style="list-style-type: none"> The severity of the disabilities; The interaction between multiple disabilities; The response to treatments; and Suitable vehicle modifications. <p>An assessment where appropriate by a Principal Driver may be helpful.</p>
Dementia and other cognitive impairments	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person's dementia or cognitive impairment is confirmed. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work, and:</p> <ul style="list-style-type: none"> The cause of the condition and likely response to treatment; and Any appropriate neuropsychological tests; and The result of an assessment by a Principal Driver or equivalent depending on the job.
Head injury (Acquired brain injury)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has had head injury causing chronic functional disturbances. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work, and:</p> <ul style="list-style-type: none"> The result of neuropsychological testing; and The result of an assessment by a Principal Driver or equivalent depending on the job (see also Cognitive Impairment); and Other disabilities that may impair Safety Critical Work per these Standards.
Migraine	See text.
Neglects (While patient perceives, does not respond appropriately)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If there are neglects present.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – NEUROLOGICAL DISORDERS (CONT)	
CONDITION	CRITERIA
Neuromuscular conditions (MS, Parkinson's Disease, Peripheral Neuropathy)	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has Parkinsonism, multiple sclerosis, degenerative peripheral neuropathy, progressive muscular dystrophy or any other severe neuromuscular disorder. <p>Fit for Duty Subject to Review may be recommended, if the disability is limited to minor effects on Safety Critical Work, taking into account the opinion of a neurologist or rehabilitation specialist and the nature of the work, and:</p> <ul style="list-style-type: none"> The response to treatments; and The result of an assessment by a Principal Driver or equivalent depending on the job; and Modifications to the job, where practical.
Stroke	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has had a stroke. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work:</p> <ul style="list-style-type: none"> If the stroke was caused by a condition that has now been satisfactorily treated. A satisfactory recovery from the stroke, including perceptual deficits, must also be demonstrated. <p>Cases of berry aneurysm should be referred to an appropriate specialist.</p>
Transient Ischaemic Attacks	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has had two or more transient ischaemic attacks. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an appropriate specialist and the nature of the work (avoidance of sudden incapacity is particularly important in Category 1 tasks):</p> <ul style="list-style-type: none"> If the aetiology of the attacks has been identified, the underlying cause removed, and the person has had a six-month period free of attacks.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions which may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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15. PREGNANCY

15.1 RELEVANCE TO SAFETY CRITICAL WORK

In normal circumstances, pregnancy should not be considered a barrier to Safety Critical Work. However, conditions that may be associated with some pregnancies should be considered regarding their effect on Safety Critical Work. These include:

- fainting or light-headedness;
- hyperemesis gravidarum;
- hypertension in pregnancy; and
- post caesarean section.

A caution regarding performing Safety Critical Work may be required depending on the severity of the symptoms and the expected effects of medication.

15.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

There are no specific criteria regarding fitness for duty for pregnancy. Each person will require individual assessment based on the considerations above.

Gestational Diabetes: If the diabetes occurs only in pregnancy, it should not impact on fitness for duty.

Post natal Depression: A Safety Critical Worker with post natal depression will require individual assessment regarding the severity of the condition in relationship to the job. (Refer also to *Psychiatric Disorders*).

16. PSYCHIATRIC DISORDERS

See also Neurological Disorders, Alcohol and Drugs - Illicit.

16.1 RELEVANCE TO SAFETY CRITICAL WORK

Psychiatric disorders may affect the ability to perform Safety Critical Work due to effects on mental function. Safety Critical Work is a complicated psychomotor performance which depends on fine coordination between the sensory and motor systems. It is influenced by factors such as arousal, perception, learning, memory, attention, concentration, emotion, reflex speed, time estimation, auditory and visual functions, decision-making and personality. Complex feedback systems interact to produce the appropriate coordinated behavioural response. Anything that interferes with any of these factors to a significant degree may impair Safety Critical Work ability. For example, inattentiveness due to a mixture of anxiety arising from a chronic domestic situation and some medications may contribute to accidents.

Train drivers have a particular risk in the course of their work due to people suiciding on railways. These incidents are usually managed through a critical event management program within an organisation. However, such events when recurrent may lead to reactive depression and anxiety.

16.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for fitness for duty are outlined in the table overleaf.

Substantial anxiety – depression affects up to 10% of the adult population. This has led to introduction of the K10 screening tool to detect severe cases of this common condition.

Screening for anxiety/depression – Use of the K10 Questionnaire

The K10 questionnaire is included in the Safety Critical Worker Questionnaire. It should be applied and interpreted as follows:

1. Each question is scored as follows:

All of the time	5
Most of the time	4
Some of the time	3
A little of the time	2
None of the time	1

2. The values are then summed. If the total is nineteen (19) or greater (or other clinical observations warrant it) discuss the findings with the patient. Determine possible explanations such as work stress or domestic crises or endogenous causes and agree an approach to management of the condition eg referral to

GP/psychiatrist or to Employee Assistance Program, marital or financial counsellor, etc.

3. Persons with raised K10 scores (19 or greater) may be classed Temporarily Unfit for Duty or Fit for Duty Subject to Review while the causes are being assessed and managed.

The K 10 is used by kind permission of Professor Gavin Andrews of the Clinical Research Unit for Anxiety and Depression of the University of New South Wales. Further information about the K 10 is available at www.crufad.unsw.edu.au

Other psychiatric conditions

Persons with any substantial mental illnesses (whether acute or chronic) should not perform Safety Critical Work, although recommendation of Fit for Duty Subject to Review may be considered in some circumstances on the recommendation of a treating psychiatrist.

An acute episode of mental illness (for example, psychosis, acute mania or panic attack) poses a substantial risk. Such an episode in a Safety Critical Worker would mean the criteria for fitness for duty are not met and the person should be classed Temporarily Unfit for Duty pending assessment.

Some medications for mental illness may affect Safety Critical Worker alertness and coordination. However, the use of more modern drugs with less side-effects (especially antipsychotics) may improve compliance and therefore reduce symptoms. There may need to be a trial period of the medication when the person should be classed Temporarily Unfit for Duty.

Dementia and Other Cognitive Impairments:

The person should not perform Safety Critical Work if there is significant impairment of memory, visuospatial skills, insight or judgement or if problematic hallucinations or delusions. Baseline measures and periodic review are required as most forms of cognitive impairment and dementia are progressive. If unsure in the case of a driver, refer to a Principal Driver for further assessment. Referral to a neuropsychologist may be helpful in cases of cognitive impairment.

Personality Disorder. Persons with personality disorders often show disregard for social values and rules. They are unsuitable for Safety Critical Work. Persons with unsuitable personality traits/attitudes should be identified by selection (neuropsychological) tests at time of recruitment. Usually this is not a medical or health assessment matter.

Neuro-development Disorders. Specialist advice should be sought regarding Safety Critical Workers who have complex conditions such as ADHD or Tourette's Syndrome.

Where a mental health condition is associated with epilepsy or illicit drug use, the relevant section should also be referred to.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – PSYCHIATRIC DISORDERS	
CONDITION	CRITERIA
K10 Score	If the person has a K10 score of 19 or greater the person may be classified Temporarily Unfit for Duty or Fit for Duty Subject to Review while the causes are being assessed and managed.
Psychiatric disorders	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has an acute or chronic psychosis, whether schizophrenic, bipolar (manic or depressive phase) or other depressive psychosis; or • If the person has a personality or psychiatric disorder with features such as aggression or violence which are hazardous to Safety Critical Work; or • If the person is taking psychoactive drugs which will impair Safety Critical Work performance on a long term basis; or • If the person's judgement or perceptual, cognitive or motor function is affected by mental disorder (for example, ADHD); or • If the examining doctor believes that there is a significant risk of previous psychotic condition relapsing. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a psychiatrist and the nature of the work:</p> <ul style="list-style-type: none"> • If the condition is well controlled and the person is compliant with treatment over a substantial period; and • The person is taking medication that minimises the risk of cognitive or other side effects that might affect Safety Critical Work; and • Considering the results of any appropriate neuropsychological tests; and • Considering the result of an assessment by a Principal Driver, or equivalent depending on the job, if appropriate.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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17. RENAL FAILURE

17.1 RELEVANCE TO SAFETY CRITICAL WORK

Renal failure may affect the ability to perform Safety Critical Work due to metabolic disturbances affecting mental function.

Chronic Renal Failure: Potential impact from chronic renal failure on the performance of Safety Critical Work can result from:

- The metabolic consequences of uraemia itself; The risks associated with the secondary complications of chronic renal disease and its treatment, in particular cardiovascular problems, labile hypertension, post dialysis hypotension, cramp, volume overload, congestive cardiac failure, and accelerated atherosclerosis; or
- The underlying cause of the chronic renal failure (eg: 25% of dialysis patients have diabetes mellitus, a disease with its own risks of impairing Safety Critical Work including retinopathy which is commonly associated with diabetic nephropathy).

There are described abnormalities in psychophysical ability in stable dialysis patients which may be relevant to working safely. Dialysis treatment has improved significantly in the twenty years since the only relevant literature was published, and erythropoietin therapy has resulted in the disappearance of anaemia. There is no detailed recent literature on the functional ability of chronic renal failure/dialysis patients in relation to working safely, and no firm evidence based recommendations can be made.

17.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for Fit for Duty are outlined in the table overleaf.

The renal condition most commonly relevant to a fitness for duty assessment is chronic renal failure. Chronic renal failure may be 'end stage' requiring treatment by dialysis or kidney transplantation, or less severe renal failure, which has not yet progressed to end stage.

While mild chronic renal failure is not usually associated with significant symptomatic or functional impairment, late stage chronic renal failure (Glomerular Filtration Rate (GFR) approximately <20% of normal), although not 'end-stage', may have some of the clinical impairments seen in dialysis treated end stage renal failure patients.

Successful kidney transplantation reverses most of the metabolic or functional impairment of chronic renal failure, including those likely to be relevant to the task, and (after the initial post operative recovery) persons with kidney transplants who have good renal function are not regarded as impaired from a Fit for Duty point of view.

The initiation of dialysis treatment is associated with some metabolic and cardiovascular adjustment and may be associated with increased functional impairment. It is considered prudent to avoid performing Safety Critical Work for the first few treatments or weeks of treatment, but after this individually variable period, most patients achieve a reasonable symptomatic or functional state, which is maintained by ongoing dialysis treatment.

The combination of the subtle cognitive impairment, probably present in most patients with advanced chronic renal failure, together with co-morbidities associated with renal failure and dialysis, suggests a conservative, or restrictive approach in the high-risk situation of Safety Critical Work.

Proteinuria is a reliable marker for chronic renal disease. In an elderly population, the cause of proteinuric renal disease (eg: diabetes or ischaemic vascular disease) may be the more relevant factor in impairment.

Acute Renal Conditions and Recurrent Acute Conditions: Glomerular disease in the absence of severe renal failure or hypertension, and recurrent urinary tract infection do not have any associated risk.

Renal Calculus Disease, with Renal Colic: is a condition that can cause acute severe pain, which could, in some instances severely impair Safety Critical Work. After a first stone episode, the risk of recurrence is only 14% at one year and 35% at five years. Most episodes of colic will commence with some milder prodromal symptoms, sufficient to allow a train driver to stop or a flagman to radio for help, and there are no published data supporting a risk for Safety Critical Work such as driving from calculus disease. The risk from recurrent calculi is, therefore, considered to be remote and differs from the situation with aeroplane pilots, for whom the option of immediately landing is not available.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – RENAL FAILURE	
CONDITION	CRITERIA
Renal Failure	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has end-stage renal failure (requiring dialysis) or advanced predialysis renal failure (GFR <20% of normal). <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a renal specialist and the nature of the work:</p> <ul style="list-style-type: none"> • If the person's condition is stable with limited co-morbidities per this Volume.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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18. RESPIRATORY DISEASES AND SPEECH

18.1 RELEVANCE TO SAFETY CRITICAL WORK

Respiratory disease and speech disorders may affect the ability to perform Safety Critical Work. This is partly because considerable exertion may be required to work safely and in other circumstances normal blood gases are required to enable vigilance to be maintained and appropriate decisions made.

Clear speech is required for communication particularly by radio-communication systems regarding normal operating as well as emergency situations.

18.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for Fit for Duty are outlined in the following table.

Severe Chronic Asthma: Careful assessment of the ability to perform Safety Critical Work is warranted in severe chronic asthma. Workers should not perform Safety Critical Work for two weeks following admission to an ICU or following

loss of consciousness, unless otherwise cleared by a specialist.

Severe respiratory disease is not compatible with Safety Critical Work. A driver's duties require not only sitting in a cab, but also ability to walk along the train and inspect couplings and in an emergency the ability to exit the cab and deal with unpredictable circumstances. Flagman must be able to move quickly along the track. Portable oxygen is impractical in these jobs.

Post Thoracotomy: Post thoracotomy patients generally should not perform Safety Critical Work for four weeks unless cleared by a specialist. Lung transplant patients should be managed similarly as with heart transplant (see *Cardiovascular Diseases*).

Laryngectomy and Tracheostomy Persons with a tracheostomy or laryngectomy need to be assessed regarding their ability to speak clearly including use of radio-communications while still performing Safety Critical Work. A practical test may be helpful.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – RESPIRATORY DISEASES	
CONDITION	CRITERIA
Laryngectomy and Tracheostomy	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> • Post Laryngectomy or Tracheostomy. Fit for Duty Subject to Review may be recommended after practical assessment such as with phones or radio communication devices, etc.
Long – term Oxygen therapy	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> • If the person has unstable disease requiring oxygen therapy.
Respiratory Failure	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> • If the person has severe respiratory failure. Fit for Duty Subject to Review may be recommended, taking into account the opinion of a respiratory physician, and the nature of the work: <ul style="list-style-type: none"> • After consideration of the severity of the person's condition and the likelihood of control of the failure.
Thoracotomy	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> • Post thoracotomy for at least 4 weeks as determined by the treating surgeon.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Worker. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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19. SLEEP DISORDERS

19.1 RELEVANCE TO SAFETY CRITICAL WORK

Excessive sleepiness during the day, which manifests itself as a tendency to doze at inappropriate times when intending to stay awake, can arise from many causes and is associated with an increased risk of accidents.

A number of medical sleep disorders, for example, may cause excessive daytime sleepiness, including the sleep apnoea syndromes (obstructive sleep apnoea, central sleep apnoea and nocturnal hypoventilation), periodic limb movement disorder, circadian rhythm disturbances (for example, advanced or delayed sleep phase syndrome), some forms of insomnia and narcolepsy. Such sleep disorders may affect the ability to perform Safety Critical Work due to sleepiness per se and/or altered blood gases and hypoxia affecting mental function.

Information about risk of accidents due to sleep disorders mainly comes from road crash data. Studies have shown an increased rate of motor vehicle accidents two to seven times that of control subjects in those with sleep apnoea⁹⁻¹³. Studies have also demonstrated increased objectively measured sleepiness while driving (electro-encephalography and eye closure measurements) and impaired driving simulator performance in sleep apnoea patients^{3, 14, 15}. This performance impairment is similar to that seen due to illegal alcohol impairment or sleep deprivation¹⁶. Drivers with severe sleep disordered breathing (respiratory disturbance index greater than 34) may have a much higher rate of accidents than those with a less severe sleep disorder²⁶. (LOE-III-2)

Those with narcolepsy perform worse than control subjects on simulated driving tasks and are more likely to have accidents^{28, 29}. (LOE-III-2)

Increased sleepiness during the daytime may also occur in otherwise normal people and may be due to:

- prior sleep deprivation (restricting the time for sleep)
- poor sleep hygiene habits
- irregular sleep wake schedules (eg rosters)
- influence of sedative medications including alcohol.

Insufficient sleep (less than five hours) is strongly related to accident risk¹⁰.

These factors may increase the severity of sleep disorders and result in more severe sleepiness in workers with sleep disorders²⁶.

Fatigue is a major cause of road accidents and rail by extrapolation. Sleepiness and sleep disorders are one important aspect of managing the risks of fatigue¹. Fatigue programs typically

involve attention to rosters and sensible financial rewards, as well as education about the importance of sleep, sleep hygiene including adequate facilities for sleeping, and advice on diet and alcohol use and medication¹.

Treatment of obstructive sleep apnoea with nasal continuous positive airways pressure (CPAP) has been shown to reduce daytime sleepiness and reduce the risk of accidents back to control levels^{8, 10, 18, 19}. CPAP has also been shown to improve driving simulator performance to control levels²⁰. Mandibular advancement splints have also been used to treat obstructive sleep apnoea. While they reduce daytime sleepiness and improve vigilance, studies have not been performed to assess whether they reduce motor vehicle accident rates²²⁻²⁴. (LOE-III-2)

It is important to distinguish sleepiness (the tendency to fall asleep) from fatigue or tiredness, which is not associated with a tendency to fall asleep. Many chronic illnesses cause fatigue without increased sleepiness.

Sleep Apnoea

Sleep apnoea is present on overnight monitoring in 9% of adult women and 24% of adult men^{4, 5}. Sleep apnoea syndrome (excessive sleepiness in combination with sleep apnoea on overnight monitoring) is present in 2% of women and 4% of men. Some studies have suggested a higher prevalence in (transport) drivers^{6, 7}. (LOE-III-2)

Obstructive sleep apnoea involves repetitive obstruction to the upper airway during sleep, precipitated by relaxation of the dilator muscles of the pharynx and tongue, and/or narrowing of the upper airway, and resulting in cessation (apnoea) or reduction (hypopnoea) of breathing.

Central sleep apnoea refers to a similar pattern of cyclic apnoea or hypopnoeas caused by oscillating instability of respiratory neural drive, and not due to upper airways factors. This condition is less common than obstructive sleep apnoea and is associated with cardiac or neurological conditions or may be idiopathic. Hypoventilation associated with chronic obstructive pulmonary disease or chronic neuromuscular conditions may also interfere with sleep quality causing excessive sleepiness.

Sleep Apnoea Assessment: Common indicators of the possibility of sleep apnoea include habitual snoring during sleep, witnessed apnoeic events, falling asleep inappropriately (particularly during non-stimulating activities) and feeling tired despite adequate time in bed⁸. Poor memory and concentration, morning headaches and insomnia may also be presenting features. The condition is more common in men and with increasing age.

Physical features commonly found in those with sleep apnoea include obesity, a thick neck and a narrow oedematous ('crowded') oropharynx. Sleep apnoea may be present without these features however. Specific questioning in

relation to each of the clinical disorders, for example, snoring, witnessed apnoeas, limb jerking, or cataplexy will focus on the likelihood of a specific sleep disorder.

Workers in whom sleep apnoea is suspected, chronic excessive sleepiness or another medical sleep disorder should be referred to a specialist medical sleep physician for further investigation such as overnight polysomnography and appropriate referral to an ENT surgeon.

Narcolepsy: Narcolepsy is present in 0.05% of the population and usually starts in the second or third decade of life²⁷. Sufferers present with excessive sleepiness and can have periods of sleep with little or no warning of sleep onset. Other symptoms include cataplexy, sleep paralysis and vivid hypnogogic hallucinations²⁸.²⁹ The majority of sufferers are HLA-DR2 positive. There is a sub-group of individuals who are excessively sleepy, but do not have all the diagnostic features of narcolepsy. Inadequate warning of oncoming sleep, and cataplexy, put Safety Critical Workers at high risk.

Diagnosis of narcolepsy is made on the combination of clinical features, HLA typing and multiple sleep latency test (MSLT) with a diagnostic sleep study on the prior night to exclude other sleep disorders and aid interpretation of the MSLT^{30, 31}.

Subjects suspected of having narcolepsy should be referred to a respiratory or sleep physician or neurologist for assessment (including a multiple sleep latency test) and management. They should have a review at least annually by their specialist.

Sleepiness in narcolepsy may be managed effectively with scheduled naps and stimulant medication³²⁻³⁴. Tricyclic antidepressants and MAO inhibitors are used to treat cataplexy³⁵. (LOE-II)

19.3 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Determining sleepiness is a clinical decision. Subjective measures include tools such as the Epworth Sleepiness Scale². Which is incorporated into the Safety Critical Worker health assessment

Use of the Epworth Sleepiness Scale (ESS):

The ESS is scored by summing the numeric values in the boxes in the questionnaire; the maximum possible is 8 x 3 = 24.

A score of 0 to 10 is within the normal range.

Mild to moderate self reported sleepiness (Epworth Sleepiness Scale score of 11 to 15)

may be associated with a significant sleep disorder, although the degree of increased risk of sleepiness-related (motor vehicle) accidents is unknown.

Scores of 16 to 24 are consistent with moderate to severe sleepiness and are associated with an increased risk of sleepiness related motor vehicle accidents (odds ratio 15.2)¹. (LOE-III-2)

If the score is raised (>15) or other clinical findings warrant it, discuss the findings with the worker to determine possible explanations such as rosters or sleep disorders and agree an approach to management eg referral to GP, or referral to sleep clinic for polysomnography, or a letter to management about rosters, etc. In most cases the worker will need to be immediately classed Temporarily Unfit for Duty pending further assessment.

Objective measures of sleepiness include the maintenance of wakefulness test (MWT) and multiple sleep latency test (MSLT). Excessive sleepiness on the maintenance of wakefulness test is related to impaired driving performance².

General Recommendations for Sleep Apnoea, Narcolepsy or Other Sleep Disorder:

Any worker with unexplained daytime sleepiness while working or having an off-duty motor vehicle accident potentially caused by sleepiness, or an ESS Score of 16 to 24 (consistent with moderate to severe sleepiness) should be classed Temporarily Unfit for Duty pending review and considered for referral to a sleep disorders specialist for assessment.

All workers suspected of having, or found to have, sleep apnoea or other sleep disorders should be warned about potential impact on Safety Critical Work. General advice should include:

- minimising unnecessary working at times when normally asleep
- allowing adequate time for sleep
- avoiding working after having missed a large portion of their normal sleep
- avoiding alcohol and sedative medications,
- resting if sleepy.

The Safety Critical Worker is responsible to:

- avoid working if they are sleepy
- comply with treatment including management of lifestyle factors
- maintain their treatment device
- attend review appointments and
- honestly report their condition to their treating physician

Safety Critical Workers who are diagnosed with obstructive sleep apnoea syndrome and require treatment are advised to have annual review by a sleep specialist to ensure that adequate treatment is maintained. For workers who are treated with CPAP it is recommended that they should use CPAP machines with a usage meter

² The Epworth Sleepiness Scale is under copyright to Dr Murray Johns 1991-1997. It may be used by individual doctors without permission, but use on a commercial basis must be negotiated. It is included in the Safety Critical Worker Health Assessment Questionnaire.

to allow objective assessment and recording of treatment compliance³⁵. Appropriate referral to an ENT surgeon should be made. Assessment of sleepiness should be made and objective measurement of sleepiness should be

considered (maintenance of wakefulness test and/or or multiple sleep latency test), particularly if there is concern regarding persisting sleepiness or treatment compliance.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – SLEEP DISORDERS	
CONDITION	CRITERIA
ESS Score	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has a ESS score of 16 or greater. <p>The person will be classified Temporarily Unfit for Duty while the causes are being assessed and managed.</p>
Sleep Apnoea	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If the person has established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and excessive daytime sleepiness), with moderate to severe sleepiness, until treatment is effective. If there is a history suggestive of sleep apnoea in association with severe daytime sleepiness, until investigated and treated. Severe sleepiness is indicated by frequent self reported sleepiness while working, motor vehicle crashes caused by inattention or sleepiness or an Epworth Sleepiness Scale Score of 16 to 24^{2, 37, 38}. (LOE-III-2) <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in sleep disorders, and the nature of the work:</p> <ul style="list-style-type: none"> For those with established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and excessive daytime sleepiness) who are on satisfactory treatment¹⁰. (LOE-IV) Consideration should be given to how long-distance drivers will comply with treatment such as CPAP^{11, 13}. (LOE-III-2)
Narcolepsy	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> If narcolepsy is confirmed^{27, 28}. (LOE-III-3) <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of a specialist in sleep disorders, and the nature of the work, after the following requirements are met:</p> <ul style="list-style-type: none"> A clinical assessment has been made by a sleep physician or neurologist; and Cataplexy has not been a feature in the past; and Medication is taken regularly; and There has been an absence of symptoms for six months; and Normal sleep latency present on MWT (on or off medication). (Expert Opinion)
Other causes of excessive daytime sleepiness	See guidelines in text

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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20. SYNCOPE / BLACKOUTS

20.1 RELEVANCE TO SAFETY CRITICAL WORK

Unpredictable, spontaneous loss of consciousness is incompatible with Safety Critical Work. Syncopal/blackout episodes may arise from various causes including:

- cardiac (for example, arrhythmias, flow obstruction);
- hypotension due to inappropriate vasodilation (for example, vaso-vagal faints, autonomic system disorder);
- neurogenic (for example, epilepsy, transient ischaemic attacks);
- metabolic (for example, hypoglycaemia); or
- psychiatric (for example, hyperventilation, psychosomatic states).

Determination of the cause of syncope/blackout may be difficult and require extensive investigations and referral to several specialists.

20.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for Fit for Duty are outlined in the following table.

Some of these conditions are temporary (for example, fainting in hot weather) and do not impact on fitness for duty. However, in the event of an unexplained episode of syncope/blackouts consideration must be given to discontinuation of performing Safety Critical Work until the cause is ascertained and treated.

Where a firm diagnosis has been made, the standard appropriate to the condition should be referred to in this Volume. For recurrent syncope/blackouts which is not covered elsewhere in this Volume refer to the table below.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – SYNCOPE/BLACKOUTS	
CONDITION	CRITERIA
Syncope	<p>The worker should not perform Safety Critical Work for six months following unexplained syncope/blackouts, although a shorter period may be advised by an appropriate specialist.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person suffers from unheralded recurrent syncope/blackouts which does not respond to treatment.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms which could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

21. VESTIBULAR DISORDERS

21.1 RELEVANCE TO SAFETY CRITICAL WORK

Vestibular disorders may affect the ability to perform Safety Critical Work due to their affect on balance. Safety Critical Work ability is dependent on the normal functioning of the vestibular mechanism to sense movement and position and may be impaired by defects in balance.

Vestibular disorders may vary between symptomatic and asymptomatic with little warning. Vestibular malfunction can occur suddenly and with sufficient severity to make safe driving or other Safety Critical Work impossible. It is often accompanied by nystagmus, which compounds the disability. In addition, drivers need to be able to enter and exit the cab to and from the ground in emergency situations and require balance to do so. All Safety Critical Workers need to walk and in emergency to run, along ballast and other uneven surfaces and require good balance.

21.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for Fit for Duty are outlined in the following table.

Generally, those who suffer from unheralded attacks of vertigo are Not Fit for Duty.

Vestibular function should be clinically assessed by using a simple Romberg test, which is also required for neurological function. A pass requires the ability to maintain balance while standing with shoes off, feet together side by side, eyes closed and arms by sides, for thirty seconds.

The opinion of an otorhinolaryngologist may be sought.

Subsequent to an initial attack of vertigo due to acute labyrinthitis (deafness and vertigo), there may be further recurrence of vertigo for up to twelve months. Given that there are no premonitory symptoms, a sudden inability to work safely may eventuate. The person should not perform Safety Critical Work while symptoms persist.

In cases of acute **neuro***labyrinthitis* (syn. vestibular neuronitis, viral infection of the vestibular nerve) which causes nystagmus and vertigo, recurrence of symptoms can present for many years despite treatment. This makes it quite difficult to isolate a given phase of the condition where symptoms deleterious to an individual's fitness for duty may be present.

In confirmed Meniere's disease, vestibular malfunction and nystagmus can occur despite treatment. The natural history is of progression in the affected ear associated with increasing hearing loss until in the extreme total loss of vestibular function and partial loss of cochlear function in the affected ear.

Benign paroxysmal positional vertigo (BPPV): Generally patients with BPPV will not have symptoms in the upright position. However, workers with BPPV and symptoms in the upright position should not perform Safety Critical Work such as climbing ladders while symptoms persist and should be free of symptoms and signs for two months before resuming Safety Critical Work.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – VESTIBULAR DISORDERS	
CONDITION	CRITERIA
Vestibular Function	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has, or has had in the previous twelve months, any condition of recurrent vertigo. This includes confirmed Meniere's disease, recurrent unheralded vertigo and/or benign paroxysmal positional vertigo, with or without treatment, or any other type of vertigo. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an ENT specialist and the nature of the work:</p> <ul style="list-style-type: none"> • For persons who have had vertigo caused by Meniere's condition, or recurring unheralded attacks of vertigo, after at least twelve months free of vertigo; • For persons who have had one episode of vertigo caused by acute labyrinthitis (deafness and vertigo), acute neuro labyrinthitis (vestibular neuronitis), after at least six months free of vertigo; • For persons who have any other type of vertigo, after at least two months free of vertigo; • For persons who have had BPPV only, after at least two months free of symptoms and signs of BPPV. <p>The ENT specialist is to have regard to:</p> <ul style="list-style-type: none"> • The nature of the condition and response to treatment; and • The functional ability to perform Safety Critical Work such as drivers entering/exiting the cab in an emergency.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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22. VISION AND EYE DISORDERS

22.1 RELEVANCE TO SAFETY CRITICAL WORK

Good vision is essential to Safety Critical Work as visual information is crucial to operating machinery and walking about as required by rail safety work. Any marked loss of visual acuity or visual field will diminish an individual's ability to work safely. A worker with a significant visual defect may fail to detect another train or member of the public and will take appreciably longer to perceive and react to a potentially hazardous situation.

The identification and correct interpretation of colour signals is also necessary for the safe operation of trains as railway signals are an essential part of the safety operating systems.

The following descriptions of rail safety jobs illustrate typical colour vision requirements but they are not necessarily correct for any one network. Risk assessments of the colour vision requirements of jobs are required and should be done in conjunction with a specialist in occupational medicine to determine the appropriate classification and hence examination. Where variations are made from the national standards they should be identified to all parties because they have implications for portability. The full details on risk assessment for jobs is given in the separate *Guideline for Health Risk Management*; but the guidance on colour vision is shown in the diagram opposite.

Train drivers must be able to demonstrate the ability to recognise colour signals. Positional cues are not always available as red-green lights may operate from a single lens signal; lights from a signal may have no background or illumination at night to help their identification; there may be dazzle from a low sun behind the signal; and red lights may be shone from a lantern in emergency situations requiring rapid reaction. Combinations of red/yellow/green signals are used to inform the train driver of a safe speed and routing.

Signallers may be required to rapidly and accurately identify all signal lights in the event of signal failure occurring.

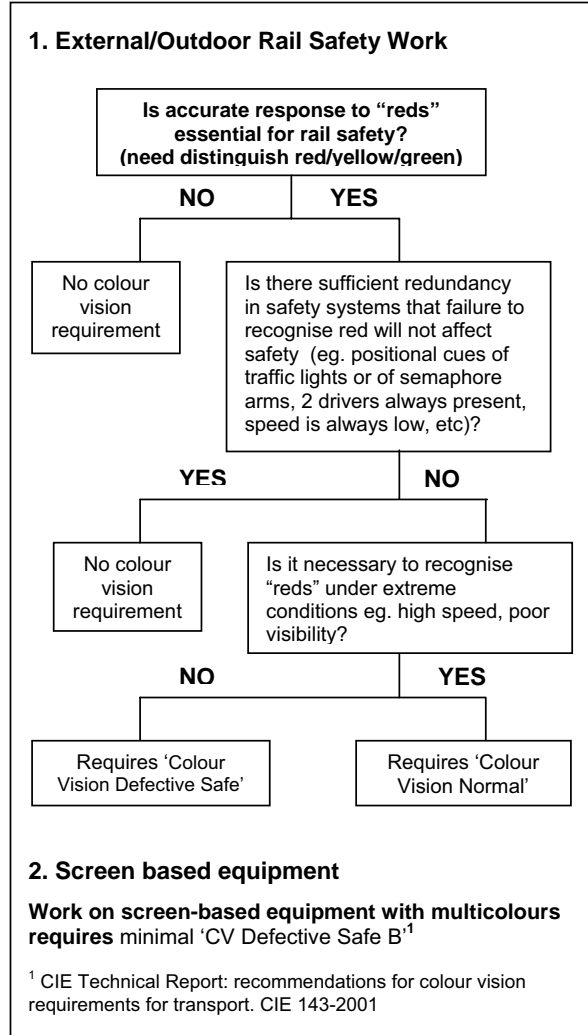
Shunters may need to identify all colours including purple although the trains they are guiding are generally moving slowly.

Flagmen need to identify red/yellow/green flags and be able to interpret signal lights as warning of an oncoming train.

Signal repairers need to recognise red/green at a distance from a single lens signal to check correctness of their repairs and to ensure safety of the network. However they are not under time pressure to read the signal.

Evaluation Process for Colour Vision¹⁵

There are two main groups of jobs regarding colour vision; external work and work involving multicolour screen based equipment.



Persons who are Colour Vision Normal have normal colour vision on testing on the Ishihara tests, whereas those who are Colour Defective Safe are not normal but can distinguish red/green with time and may work in jobs where quickness or distance etc is not crucial in signal recognition.

22.2 MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS

Medical criteria for Fit for Duty are outlined in the table overleaf.

There may be a degree of flexibility allowed at the optometrist's or ophthalmologist's discretion for individuals who barely meet visual standards but who are otherwise alert, have normal reaction times and good muscular coordination.

The two most important aspects of vision in relation to Safety Critical Work are:

- visual acuity
- visual fields

Visual acuity:

For the purposes of these Standards, visual acuity may simply be defined as the best obtainable vision with or without glasses or contact lenses. Visual acuity should be measured with one eye occluded and without correction. If correction is normally used when working then vision should be retested with corrective lenses and the corresponding results recorded. Acuity should be tested using an appropriate visual acuity chart (Snellen chart or equivalent). Alternative charts (for example, Landolt Ring, tumbling E) may be used for persons who cannot read English characters.

The visual acuity standard can be met with or without corrective spectacle lenses or contact lenses. Persons who require glasses to perform duties should be classed as Fit for Duty Subject to Review and reviewed at an appropriate time interval depending on the underlying condition. If workers meet the standard with corrective lenses they should be able to be passed by the authorised health professional without reference to an ophthalmologist, optometrist or GP. In appropriate circumstances a referral may be made.

NOTE: It is not required that workers carry spare sets of glasses at work. However persons who wear contact lenses must carry a spare set of glasses in case a foreign body enters the eye (so requiring removal of the lens). NOTE: In the case of corneal surgery, corneal pathology or a cataract, acuity should be assessed with a dilated pupil in the presence of a glare source.

Visual fields:

Adequate visual fields are important for Safety Critical Work and peripheral vision is particularly important in certain common driving tasks, such as use of side mirrors (which are important for monitoring the integrity of the train). Visual fields may be reduced as a result of head trauma, brain tumour, stroke or cerebral infarction.

Visual field losses also occur in eye diseases such as retinitis pigmentosa, a not uncommon inherited degeneration of the retina that causes significant visual field loss by the age of 30. Conditions such as glaucoma, optic atrophy, retinal detachment and localised retinal or choroidal infection can also reduce visual fields. Good rotation of the neck may also be necessary

to ensure adequate overall fields of vision, but this requirement will vary depending on the particular driving task. (Refer to *Musculoskeletal Disorders*).

Visual fields may be initially screened by confrontation. Any person who has or is suspected of having a visual field defect should be referred for expert assessment by an optometrist or ophthalmologist. As a minimum, a central (30 degree) visual field should be measured using an automated static perimeter (Humphrey Field Analyser, Medmont M700, Octopus). If the automated perimetry (on repeat) suggests that the criteria for fitness for duty are not met then Goldman or Esterman perimetry should be performed.

Binocular vision is required for all Safety Critical Work. Controllers who require only a limited field of vision may be exempted.

Colour vision:

The flow chart on page 82 summarises the testing procedures for the levels of colour vision.

Colour vision should be screened using Ishihara plates; two or more errors/12 plates is a fail. NOTE: No colour lenses or sun glasses to be used when testing.

Workers who fail the Ishihara screening test do not meet the criteria. A small number of these false positives (incorrect 'fails') occur with the Ishihara test. Therefore fails may be referred to a colour vision clinic for confirmation of their status. If found to be colour vision normal (ie false positive) they may be classed Fit for Duty. If found to be a true fail they may be offered other tests as specified and/or a practical test. A practical test is the preferred method for final assessment of doubtful colour vision, because it assesses a specific phenotype in relation to a specific signal system. The results only apply to the signal system on which the test has been conducted.

Drivers and signallers who fail the Ishihara test may be referred to a colour vision clinic for confirmation of their status. Those found not have normal colour vision may be offered a practical test. Practical tests of colour vision may be considered for drivers (and others) who fail the ordinary medical examinations. However the test is not intended to imply any relaxation of the standard for colour vision. Railway systems can differ in important details regarding signal systems requirements. Therefore, it is not sensible or safe to apply a uniform practical test nationally. These notes outline the principles of conducting a test within a particular railway. The results of such a test are not necessarily valid for any other railway because signalling systems may vary between States and networks. The test should be conducted by persons knowledgeable of the work.

Principles of Practical Tests for Colour Vision

- Driving a typical train (~80-130km/hr) and interpreting signals requires a person to be "Colour Vision Normal", which is defined as less than 2 errors/12 plates on an Ishihara

test. (Shunters and drivers of heritage trains may be further tested using the Farnsworth Lantern and persons who are "Colour Defective Safe" may be passed for these jobs.) Persons who fail may be offered a practical test using the following principles which are mainly relevant to drivers.

- The test should be based on the ability to read a variety of "multiple aspect" signals typical of those encountered on the system. The test will need to be designed by experienced engineers/drivers in conjunction with colour vision experts.
- The test should be conducted at the maximum distance a driver would be expected to interpret the signals. The maximum distance is required as a proxy for poor visibility in rain, glaring sunshine, etc. The test should be conducted by day and by night.
- A control subject should be selected. Their colour vision status must be known to be "CV normal" based on a recent Ishihara test, so they are a valid control.
- Test subject and control should be briefed on the test.
- The test involves a series of random showings of at least 10 signals at a frequency and duration designed to simulate the requirements of the system.
- The subject must obtain a score similar to the control to pass.
- If the subject passes they may be permitted to drive only on the rail system for which they have passed the practical test. If they wish to drive on another system, a practical test for that system must be conducted.
- In the event of a Signal Passed at Danger (SPAD) the driver may be required to repeat the test.
- If the person has another eye disorder (eg impaired acuity) that condition should be carefully monitored.

Shunters, flagman and signal repairers who fail may be referred to a colour vision clinic for confirmation of their status and 'fails' subsequently tested by Farnsworth Lantern. Alternatively those who fail the Ishihara test may be directly tested with Farnsworth Lantern (or equivalent eg Optec 900CV Tester) and those who pass are Fit for Duty (colour defective safe A). Those who fail may be offered a practical test following the principals stated above.

Train controllers who work with multicolour screen-based equipment need to distinguish colours such as red, magenta, blue and green which may be difficult for dichromats. They should be screened with Ishihara plates; two or more errors/12 plates is a fail. Fails may be referred to a colour vision clinic for confirmation of their status and subsequently tested by Farnsworth D15 test. Alternatively those who fail the Ishihara test may be directly tested with Farnsworth D15. The Farnsworth D15 test should be applied three times. A pass is two or more correct trials which identifies "Colour

Defective Safe B". An incorrect trial is two or more errors on the test. Those who fail may be offered a practical test following the principals stated above.

Heritage and Tourist train drivers who are not on a main line usually have a semaphore arm on a signal which gives a positional cue as well as a red/green light. They should be screened with Ishihara plates; two or more errors/12 plates is a fail. Workers who fail should be tested by Medmont C100 and those who are protans are Unfit for Duty, those who are deutans should be tested with Farnsworth Lantern and those who pass are Fit for Duty. (All drivers on main lines are required to be colour vision normal).

ATTP do not require colour vision testing.

Tram drivers do not require red and green colour vision. This is consistent with the latest Austroads standard for commercial vehicle drivers. Tram driving is comparable to bus driving in terms of risk and similar standards should be applied.

Dark Adaptation: Health professionals may wish to recommend restrictions on workers who appear to meet the visual criteria in the clinical setting but may, in certain environments have extreme difficulty. Examples of such restrictions might be daylight driving only, where certain disorders or diseases such as retinitis pigmentosa can cause poor night vision, or distance and/or speed restrictions.

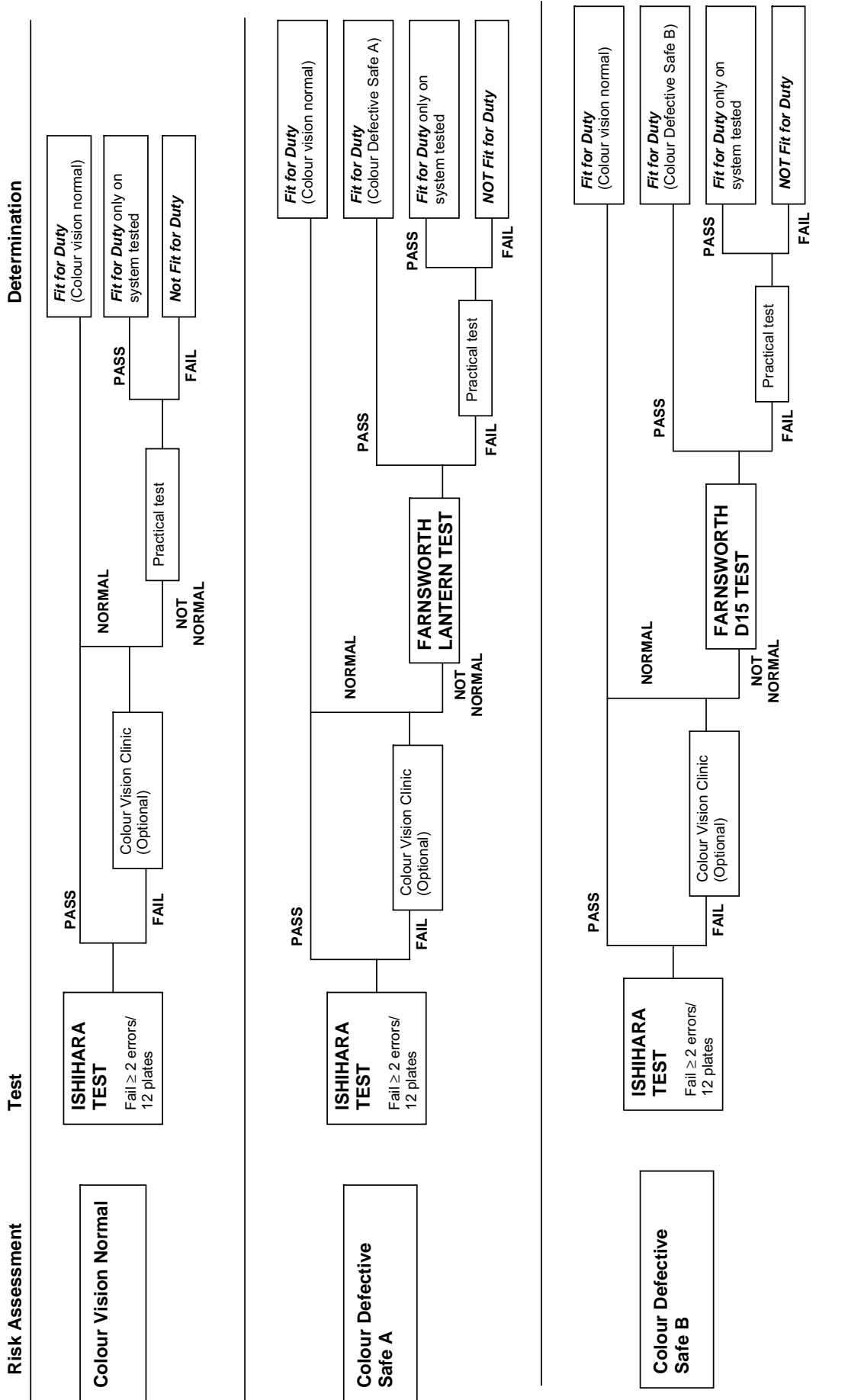
Progressive Eye Conditions: Workers with a progressive eye condition such as cataract, glaucoma, diabetic retinopathy, optic neuropathy and retinitis pigmentosa should be counselled that their eye condition will or may progress to a stage where they are no longer able to work. They should be encouraged to consider making lifestyle changes in anticipation of not being able to work. Their vision should be monitored regularly. Because persons with cataract suffer loss of contrast sensitivity and greater sensitivity to glare, they may have more difficulty seeing when working than is indicated by their visual acuity.

Short-term Eye Conditions and Eye Treatments: Persons whose vision is temporarily disturbed by a short term eye condition or an eye treatment should be counselled not to perform Safety Critical Work for a specified time or to limit their work during this time. This includes temporary patching of any eye, the use of mydriatics or drug known to affect vision, and after eye surgery. (they should be classed as Temporarily Unfit for Duty)

Congenital and Acquired Nystagmus: The criteria for visual acuity must be met and any underlying condition fully assessed.

Diplopia: Workers suffering from all but minor forms of diplopia generally are unsafe to drive. Any person who reports or is suspected of experiencing diplopia should be referred for expert assessment by an optometrist or ophthalmologist. They should be classed as Temporarily Unfit for Duty pending review.

COLOUR VISION REQUIREMENTS AND TESTING FOR RAIL SAFETY WORKERS



MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – VISION AND EYE DISORDERS	
CONDITION	CRITERIA
Acuity	<p>Visual acuity should be measured one eye at a time (monocularly), without correction in the first place. Acuity should be tested using a standard visual acuity chart (Snellen chart or equivalent) that includes at least five letters on the 6/9 and 6/18 lines. Alternative charts (for example, Landolt Ring, tumbling E) may be used for persons who cannot read the alphabet. More than two errors in reading the letters of any line is regarded as a failure to read the line.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person's visual acuity is worse than 6/9 in the better eye; or • If the person's visual acuity is worse than 6/18 in either eye. <p>Fit for Duty Subject to Review may be recommended:</p> <ul style="list-style-type: none"> • If the standard is met with corrective lenses; and • After consideration of the stability of any underlying disorder. <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an ophthalmologist or optometrist, and the nature of the work:</p> <ul style="list-style-type: none"> • If the person's vision is worse than 6/18 in the worse eye, provided that the visual acuity in the better eye is 6/9 or better (with or without corrective lenses); and • After consideration of the nature of any underlying disorder. <p>In cases of latent nystagmus made manifest by the occlusion of one eye for the purpose of testing, a binocular visual acuity of 6/9 is acceptable if the visual acuity of the better eye is below 6/9 with occlusion of the fellow eye. The same minimum standard of vision in the worse eye applies.</p>
Colour vision These standards may be varied subsequent to a risk assessment of the network and on advice of a specialist in occupational medicine.	<p>Drivers and signallers:</p> <p>Colour vision should be screened using Ishihara plates; more than one error/12 plates is a fail.</p> <p>The criteria for Fit for Duty for drivers and signallers are not met:</p> <ul style="list-style-type: none"> • If the person is not Colour Vision Normal, that is, does not pass the Ishihara test. <p>Drivers and signallers who fail the Ishihara test do not meet the criteria, but may be further assessed for confirmation at a colour vision clinic.</p> <p>Flagman, shunters and signal repairers:</p> <p>Colour vision should be screened using Ishihara plates; more than one error/12 plates is a fail. Shunters, flagman and signal repairers who fail the Ishihara test should be tested by Medmont C100 and those who are protans are not Fit for Duty; those who are deutans should be tested with Farnsworth Lantern and those who pass are Fit for Duty.</p> <p>The criteria for Fit for Duty for flagman, shunters and signal repairers are not met:</p> <ul style="list-style-type: none"> • If the person is a protan or deutans as determined by the Farnsworth Lantern test (ie they must be Colour Defective Safe A). <p>Train controllers:</p> <p>Colour vision should be screened using Ishihara plates; more than one error/12 plates is a fail. They should be further tested using Farnsworth D15 test.</p> <p>The criteria for Fit for Duty for a train controller are not met:</p> <p>If the person consistently fails the Farnsworth D15 test (ie they must be Colour Defective Safe B).</p> <p>Heritage and Tourist train drivers:</p> <p>Colour vision should be screened using Ishihara plates; more than one error/12 plates is a fail. Historical train drivers who fail the Ishihara test should be tested by Medmont C100 and those who are protans are not Fit for Duty, those who are deutans should be tested with Farnsworth Lantern and those who pass are Fit for Duty.</p> <p>The criteria for Fit for Duty for historical train drivers are not met:</p> <ul style="list-style-type: none"> • If the person is not Colour Defective Safe A, that is, a protan or deutans as determined by the Farnsworth Lantern test.

MEDICAL CRITERIA FOR SAFETY CRITICAL WORKERS – VISION AND EYE DISORDERS (CONT)	
CONDITION	CRITERIA
Colour vision (continued)	Tram drivers No colour vision standard
Diplopia	The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> If the person experiences any diplopia (other than physiological diplopia) when fixating objects within 20° of the primary direction of gaze.
Night blindness (Dark adaptation)	No specific standard. Refer general management guidelines in text (Paragraph 22.2 – Dark Adaptation).
Visual Fields	Visual fields may be initially screened by confrontation. Any person who has or is suspected of having a visual field defect should be referred for expert assessment by an optometrist or ophthalmologist. Central visual fields should be measured using an automated static perimeter (Humphrey Field Analyser, Medmont M700, Octopus). If the automated perimetry (on repeat) suggests that the criteria for fitness for duty are not met then Goldman or Esterman perimetry should be performed. The criteria for Fit for Duty are not met: <ul style="list-style-type: none"> If the person has any visual field defect. If the person is monocular (see text). Fit for Duty Subject to Review may be recommended, taking into account the opinion of an ophthalmologist or optometrist, and the nature of the work: <ul style="list-style-type: none"> If the binocular visual field has an extent of at least 140° within 20° above and below the horizontal midline; and If the person has no significant visual field loss (scotoma, hemianopia, quadrantanopia) that is likely to impede work performance; and After consideration of the stability of any underlying disorder.
ATTP	For vision criteria for ATTP refer PART 2B.

Temporary Illnesses. The Standards do not presume to deal with the myriad of conditions that may affect health on a short to medium term basis and for which a Safety Critical Worker may be referred for assessment regarding fitness to resume duty. Clinical judgement is usually required on a case-by-case basis although the text in each chapter gives some advice on the clinical issues to be considered.

Undifferentiated Illness. A Safety Critical Worker may present with symptoms that could have implications for their job but the diagnosis is not clear. Referral and investigation of the symptoms will mean that there is a period of uncertainty before a definitive diagnosis is made and before the worker and employer can be confidently advised. Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease which will affect Safety Critical Work. Generally, workers presenting with symptoms of a potentially serious nature should be classified Temporarily Unfit for Duty until their condition can be adequately assessed. However, they may be suitable for alternative duties.

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PART 2B – MEDICAL CRITERIA FOR TRACK SAFETY ASSESSMENT

Rail safety workers who work on or near the track but not in a Controlled Environment require examination. There are appreciable risks from moving trains which can be surprisingly quiet even at high speed so the ability to hear a train horn is important. A horn is intended to emit about 88dB at 200m in the country and 85dB at 100m in towns. The standard has been set with a wide margin of safety to allow for adverse environmental conditions and the worker facing away from the train.

Note: workers who are at any time working directly on the track should be regarded as functionally deaf and blind. A hearing standard for their safety is not appropriate and they require suitable track protection. Also this hearing standard and testing should not be confused with the requirements for audiometric monitoring required by OHS regulations for noise exposed workers.

Full visual fields and good acuity are important to sense an oncoming train.

There must be sufficient soundness of limb to permit rapid movement away from a train.

Workers who access the track receive Track Safety Awareness training on a regular basis.

Frequency of Assessment: The Track Safety Health Assessment for Category 3 (ATTP not in a Controlled Environment) assessment should be conducted:

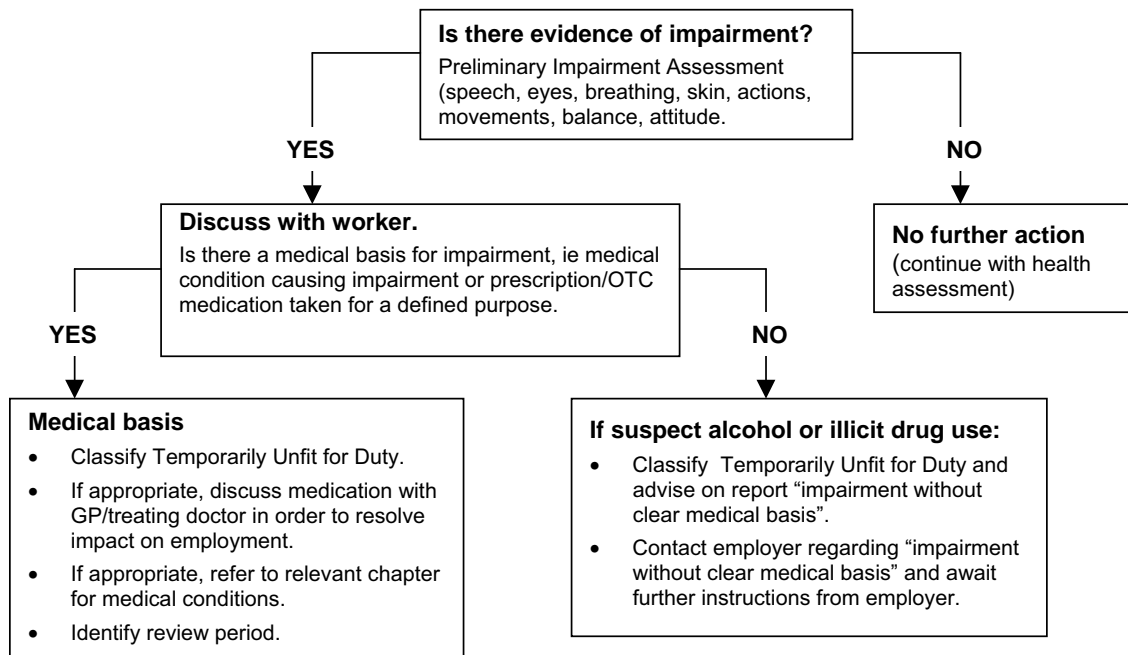
- At time of commencement and before changing to a position involving tasks of a higher risk category
- At age 40 and five yearly thereafter.

It is essential that workers are advised that if they incur serious injury or illness to their eyes, hearing or limbs, they should report to their supervisor for a Triggered Assessment.

MEDICAL CRITERIA FOR TRACK SAFETY HEALTH ASSESSMENT	
CONDITION	CRITERIA
Vision Acuity	<p>Visual acuity should be measured one eye at a time (monocularly), without correction in the first place. Acuity should be tested using a standard visual acuity chart (Snellen chart or equivalent) that includes at least five letters on the 6/9 and 6/18 lines. Alternative charts (for example, Landolt Ring, tumbling E) may be used for persons who cannot read the alphabet. More than two errors in reading the letters of any line is regarded as a failure to read the line.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person's visual acuity is worse than 6/9 in the better eye; or • If the person's visual acuity is worse than 6/18 in either eye. <p>Fit for Duty Subject to Review may be recommended if:</p> <ul style="list-style-type: none"> • The standard is met with corrective lenses; and • After consideration of the nature of any underlying disorder. <p>Fit for Duty Subject to Review may be recommended if:</p> <ul style="list-style-type: none"> • The person's vision is worse than 6/18 in the worse eye, provided that the visual acuity in the better eye is 6/9 or better; and • After consideration of the nature of any underlying disorder. <p>In cases of latent nystagmus made manifest by the occlusion of one eye for the purpose of testing, a binocular visual acuity of 6/9 is acceptable if the visual acuity of the better eye is below 6/9 with occlusion of the fellow eye. The same minimum standard of vision in the worse eye applies.</p> <p>Fit for Duty Subject to Job Modification may be considered, for example if the worker is to be escorted at all times when around the track.</p> <p>NOTE: It is not required that workers carry spare sets of glasses at work. However workers who use contact lenses should have a set of glasses for use lest a foreign body prevents use of contact lens</p>

MEDICAL CRITERIA FOR TRACK SAFETY HEALTH ASSESSMENT - CONT	
CONDITION	CRITERIA
Vision <i>Visual Fields</i>	<p>Visual fields may be initially screened by confrontation. Any worker who has or is suspected of having a visual field defect should be referred for expert assessment by an optometrist or ophthalmologist. Visual fields should be measured using an automated static perimeter (Humphrey Field Analyser, Medmont M700, Octopus). If the automated perimetry suggests that the criteria for Fit for Duty are not met then Goldman or Esterman perimetry should be performed.</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the person has any visual field defect. • If the person is monocular <p>Fit for Duty Subject to Review may be recommended:</p> <ul style="list-style-type: none"> • If the binocular visual field has an extent of at least 140° within 10° above and below the horizontal midline; and • If the person has no significant visual field loss (scotoma, hemianopia, quadrantanopia) that is likely to impede work performance; and • After consideration of the nature of any underlying disorder. <p>Fit for Duty Subject to Job Modification may be considered, for example if the person is to be accompanied at all times when around the track.</p>
Hearing	<p>Compliance with the standard should be assessed by conducting audiometry, without aids in the first place. . The hearing threshold level for pure tones is defined as the number of decibels above standard audiometric zero for a given frequency at which the listener's threshold of hearing lies when tested in a suitable sound attenuated environment. It is the reading on the hearing level dial of an audiometer that is calibrated according to Australian Standard AS 2586-1983."</p> <p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If the worker has an unaided average hearing threshold level of equal to or worse than 40dB in the better ear. (Average hearing threshold is the simple average of pure tone air conduction thresholds at 500, 1000, 2000 Hz). <p>Fit for Duty Subject to Review may be recommended, taking into account the opinion of an ENT specialist and the nature of the work:</p> <ul style="list-style-type: none"> • If a practical test is passed (refer text for details page 56). • Refer to text (page 55) regarding use of hearing aids. <p>Fit for Duty Subject to Job Modification may be considered, for example if the worker is to be escorted at all times when around the track.</p>
Musculoskeletal Disorders	<p>The criteria for Fit for Duty are not met:</p> <ul style="list-style-type: none"> • If chronic pain or restriction of joint movement or amputation of the lower limbs interferes with the ability to rapidly move from an oncoming train. <p>Fitness for Duty Subject to Periodic Review may be recommended, taking into account the opinion of a specialist and the nature of the work:</p> <ul style="list-style-type: none"> • If the condition is adequately treated. <p>Fitness for Duty Subject to Job Modification may be considered, for example if the person is to be accompanied at all times when around the track.</p>
Alcohol, Drugs	<p>If at time of examination a person appears to be mentally impaired they should be assessed per the procedures for Drug and Alcohol impairment (refer to Diagram 10).</p>

Diagram 10. Periodic Health Assessment - Management of possible impairment due to alcohol or drugs (illicit or prescription/OTC)



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PART 3 – CASE STUDIES

These studies illustrate the application of medical standards and the decision-making process for assessing rail safety worker fitness for duty. They begin with a typical scenario and then consider the issues arising for the workers, the health professionals and the rail organisation.

The cases include a description of the tasks of the worker and the health requirements for these tasks. The descriptions are typical of the rail safety tasks in question but are not representative of all rail organisations. The rail organisation will provide a task description for each rail safety worker presenting for health assessment.

1. Case Study 1: Train Driver on Commercial Network presenting for Periodic Health Assessment



Driver in cab - right hand on power/deadman's handle.



Driver climbing steep ladder to locomotive.



Driver checking underneath rolling stock.



Driver cleaning window of cab.

Drivers may be required to undertake a wide range of tasks depending on the locomotive and network.

Disclaimer: these photos are of healthy persons taken in the course of their work and do not imply any connection to the case study.

1.1 Presentation

Lou is a 53-year-old train driver who attends for his Periodic High Level Safety Critical Worker (Category 1) Health Assessment. His last assessment two years ago reported him Fit for Rail Safety Duty. He considers himself fit and well and does not regularly attend the family doctor. He takes no medication.

1.2 Task Description and Health Requirements

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>The train driver's job involves a variety of tasks that include:</p> <ul style="list-style-type: none"> • Continuous skilled driving to meet a timetable, which involves: <ul style="list-style-type: none"> - sitting for long periods while reading instruments; - communicating by radio or signal telephone to a signaller or train controller in a noisy environment; - operating handles to brake and accelerate the train; - constant vigilance to detect and respond to colour signals in a variety of changing conditions; and - scanning the track ahead for unexpected events and responding accordingly. • Working a rotating shiftwork roster; • Performance of tasks outside the cab in all types of weather, ground conditions, and times of day or night including: <ul style="list-style-type: none"> - climbing in and out of the crew cab; - checking the integrity of the train; - coupling carriages in a confined space; - fixing faults involving kneeling bending and reaching, using the signal telephone; and - changing points. • Emergency response including: <ul style="list-style-type: none"> - exiting the cab to the ground in unpredictable conditions such as after an accident; and - walking distances to provide protection of the site. 	<p><i>Health requirements relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when driving; • Normal colour perception in order to read signals and flags; • The ability to focus readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs; • Good eyesight to read data on a flat screen/SBE to monitor the train; • Psychological ability to memorise and retain route and signal placement; • Good hearing and speech to communicate on radio and communication devices and the ability to discern communications in a noisy environment. (There is also a need to understand written information. This is not a medical issue but should be addressed at pre-placement through other means); • Sufficient musculoskeletal strength and flexibility to be able to: walk externally along the length of the train on uneven ground (ballast); to correctly un/couple carriages including heavy coupling devices such as air hoses, electrical jumpers and emergency couplers in awkward spaces; • If there is an incident the driver must be able to get out of the cab and walk distances on uncertain terrain in unpredictable weather and light, and take emergency measures to protect safety of the rail network. <p><i>Health requirements relating to the worker's personal safety:</i></p> <p>Covered above</p>

1.3 Documentation

- Safety Critical Worker Health Questionnaire (completed by Lou)
- Safety Critical Worker Health Assessment Request and Report Form (completed by Lou's employer)
- Report of previous Health Assessment (provided by employer)
- Safety Critical Worker Health Assessment Record (provided by employer for completion by examining health professional)
- Audiometry result forwarded to authorised health professional by provider
- Cholesterol (total and HDL), blood glucose and ECG results forwarded to authorised health professional by pathology provider.

1.4 Assessment

At the health assessment the authorised health professional notes that Lou smokes 30 cigarettes per day, has a family history of heart disease (his father died at 56 from a heart attack) and is obese. He gives no history of chest pain or shortness of breath. He admits he does not exercise regularly any more and that he has gained quite a bit of weight in the past year since he and his wife separated. Upon examination it is noted that he has a resting blood pressure of 180/110mmHg, his total cholesterol is 7.0 and HDL 0.91, his resting ECG is normal and he has no diabetes. The Cardiac Risk Score is calculated to be 28.

Cardiac Risk Score Calculation

	Data	Score
Age/sex	Male, 53	11
Smoker: Y/N	Y	4
Blood Pressure (see above)	180/110mmHg	6
ECG (left ventricular hypertrophy)	Normal	0
Fasting cholesterol – TOTAL	7.0	4
– HDL	0.91	3
Fasting plasma glucose (diabetes)	5.3	0
TOTAL SCORE		28

1.5 Action

Authorised Health Professional

The authorised health professional diagnoses a raised Cardiac Risk Score that requires referral to a cardiologist for detailed assessment (for example, treadmill, thallium scan). Since Lou is asymptomatic and the cardiac score is less than 32 he could continue to drive and be seen soon after the cardiologist's report is received, but in view of the family history, obesity, inactivity and marital discord he should be classed Temporarily Unfit for Duty. The authorised health professional advises Lou's general practitioner of his findings and alerts him to the need for risk factor modification.

The authorised health professional discusses the findings with Lou, explaining the possible concern about his heart and the need for prompt referral for more tests and attention to his lifestyle. Lou is told that the health professional will recommend he is Temporarily Unfit for Duty and will advise the company immediately that he cannot be rostered.

The authorised health professional completes the report to the rail organisation, indicating Temporarily Unfit for Duty and noting that referral to a specialist has been made. The health professional indicates that Lou should be seen at the practice within the next month. Lou asks the health professional who is going to pay for these tests as Lou does not have health insurance. The health professional advises Lou to discuss this with his employer but that it is likely that his employer will pay for the diagnostic tests required to ascertain his fitness to drive (stress test, thallium scan, echocardiogram and visits to cardiologist) but will not pay for tests/procedures that are regarded as treatment for his condition (such tests include coronary angiogram, stenting, heart surgery).

Employer

On receipt of the report, the employer enters Lou's details into the rail organisation's recall system and flags him for review in a month and does not roster him for driving duties.

One Month Later

Authorised Health Professional

The cardiologist advises that Lou has a positive exercise test and that a thallium scan has revealed significant reversible myocardial ischaemia. Lou has been advised by the cardiologist that he will require an angiogram and cardiac surgery (either a stent or coronary artery bypass grafting).

The authorised health professional tells Lou he will be unfit to drive trains for at least three months after the cardiac procedure and that he may not be able to return to driving duties in the long term. He emphasises the need to address lifestyle issues with support from his general practitioner.

The authorised health professional advises the employer that Lou is Temporarily Unfit for Duty as a loco driver. Lou is however fit for alternate duties.

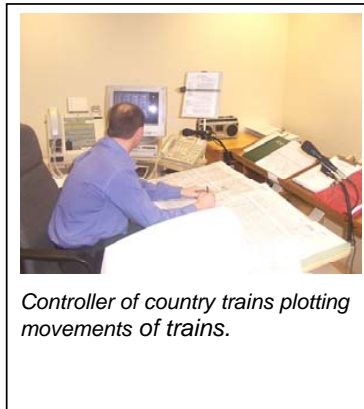
Employer

On receipt of the final report, the employer discusses employment options with Lou. There is a vacancy due to maternity leave at the local station. As he remains well, Lou is happy to fill this position in preference to staying at home on sick leave.

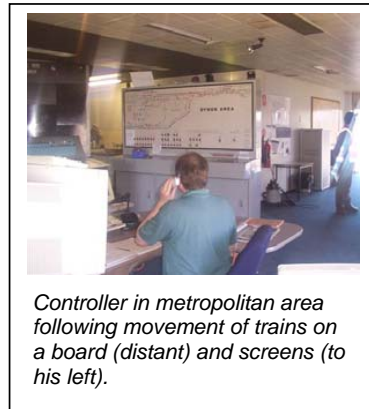
2. Case Study 2: Train Controller presenting for Triggered Health Assessment



Controller of metropolitan network using a bank of screens with multi-colours to track train movements.



Controller of country trains plotting movements of trains.



Controller in metropolitan area following movement of trains on a board (distant) and screens (to his left).

Disclaimer: these photos are of healthy persons taken in the course of their work and do not imply any connection to the case study.

2.1 Presentation

Serge is a 45-year-old train controller who attends the rail organisation’s authorised health professional for a Triggered Health Assessment as a result of concerns regarding recurrent sick leave. Serge is a Category 2 Safety Critical Worker and his last assessment was four years ago at which time the doctor reported him as Fit for Duty. Serge smokes 40 cigarettes per day and is overweight.

2.2 Task Description and Health Requirements

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>Operators in a network control room set and monitor the progress of suburban trains.</p> <ul style="list-style-type: none"> • They receive information about problems arising from passengers, track or the train and make any necessary routing decisions. • Train controllers make safeworking decisions regarding operation of the network. An incorrect decision could lead to a serious incident on the rail network. • They are in voice communication with drivers and others; monitor progress of trains on banks of screens. • They operate in an open plan area and have shift rosters that include night shifts. • The work may be routine but it can be stressful (for example, if a storm causes signal faults or trees across lines). <p>(cont)...</p>	<p>Health requirements relating to the safety of the rail network:</p> <ul style="list-style-type: none"> • Good physical and psychological health to be alert, particularly in emergencies when decisions may be made that could jeopardise the safety of the rail network; • The ability to distinguish colours on multi-coloured screens as well as adequate vision for SBE work; • Hearing and speech the same as an office worker to communicate on radio devices. <p>Health requirements relating to the worker’s personal safety:</p> <p>None</p>

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<ul style="list-style-type: none"> • In emergency situations experienced supervisors support individuals and help coordinate the response. In an emergency normal safety controls may be overridden which could lead to errors affecting the safety of the rail network. • Colours may be used on the computer screens to identify tasks or activities that require particular attention by the controller. 	

2.3 Documentation

- Safety Critical Worker Health Questionnaire (completed by Serge)
- Safety Critical Worker Health Assessment Request and Report Form (completed by Serge's employer), including attendance record summary indicating that Serge has taken twenty sick days in the past six months - all of one to two days' duration. Some were accompanied by a doctor's certificate for a *medical condition*.
- Report of previous Health Assessment (provided by employer)
- Safety Critical Worker Health Assessment Record (provided by employer for completion by examining health professional)

2.4 Assessment

On review of Serge's Safety Critical Worker Health Questionnaire, the authorised health professional finds the K10 questionnaire gives a score of 35. On further questioning, Serge reports having problems at home. His wife has a gambling problem, their financial situation is poor and their fifteen-year-old son has been in trouble with the police.

K10 Questionnaire

QUESTION	SCORE
6.1 In the past 4 weeks, about how often did you feel tired out for no good reason?	5
6.2 In the past 4 weeks, about how often did you feel nervous?	4
6.3 In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?	4
6.4 In the past 4 weeks, about how often did you feel hopeless?	3
6.5 In the past 4 weeks, about how often did you feel restless or fidgety?	4
6.6 In the past 4 weeks, about how often did you feel so restless you could not sit still?	3
6.7 In the past 4 weeks, about how often did you feel depressed?	4
6.8 In the past 4 weeks, about how often did you feel that everything was an effort?	2
6.9 In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?	3
6.10 In the past 4 weeks, about how often did you feel worthless?	3
TOTAL SCORE	35/50

His wife is worried that he appears to stop breathing at night. He is constantly tired, has no energy and admits that on a couple of occasions recently he has "nodded off" whilst at the control panel. His Epworth Sleepiness Scale (ESS) (in the Safety Critical Worker Health Questionnaire) score is 16/24. He is due to work as a train controller that evening.

Epworth Sleepiness Scale

QUESTION	SCORE
4.1 Have you ever had, or been told by a doctor that you had a sleep disorder, sleep apnoea or narcolepsy?	NO
4.2 Has anyone noticed that your breathing stops or is disrupted by episodes of choking during your sleep?	YES
4.3 How likely are you to doze off or fall asleep in the following situations?	
4.3.1 Sitting and reading	3
4.3.2 Watching TV	2
4.3.3 Sitting, inactive in a public place (eg. a theatre or meeting)	3
4.3.4 As a passenger in a car for an hour without a break	2
4.3.5 Lying down to rest in the afternoon when circumstances permit	2
4.3.6 Sitting and talking to someone	1
4.3.7 Sitting quietly after a lunch without alcohol	2
4.3.8 In a car, while stopped for a few minutes in the traffic	1
TOTAL SCORE	16/24

2.5 Action

Authorised Health Professional

The authorised health professional diagnoses significant anxiety, mild depression (history and raised K10, ≥ 19) and probable sleep apnoea (history and ESS score, ≥ 16). These conditions, undiagnosed and untreated, are incompatible with undertaking the train-controlling task safely. Serge is referred for a sleep study and his general practitioner is contacted to arrange management of his anxiety and depression.

The authorised health professional discusses with Serge that he has an anxiety state that requires referral to his general practitioner and a probable sleep disorder that requires urgent investigation. The health professional counsels Serge that he is Temporarily Unfit for Duty as a train controller and is to be reviewed again in one month after the results are to hand and the anxiety state is treated. He advises Serge that his employer provides a free Employee Assistance Program to workers and their families and that this might help him with his family difficulties.

The authorised health professional contacts Serge's manager immediately by phone as Serge was scheduled to work that evening. He advises that Serge is Temporarily Unfit for rail safety work (as a train controller) but indicates Serge may be fit for clerical work. He does not provide details of Serge's medical condition but indicates that Serge will be referred to a specialist and to his general practitioner. The authorised health professional completes the report and indicates that he will review Serge in a month's time.

Employer

The manager makes immediate changes to the roster and arranges to see Serge to discuss alternative duties. He enters Serge's details into the rail organisation's recall system and flags him for review within a month's time.

One Month Later

Authorised Health Professional

At review in one month the sleep specialist report advises that Serge has confirmed sleep apnoea and has had a good response to treatment.

A letter from Serge's general practitioner indicates that Serge has been diagnosed with significant depression. He has been referred to a psychologist and has been commenced on paroxetine, the dose of which has recently been increased to 40mg. His wife has been referred to Gambler's Anonymous. At this stage, Serge is considered at risk of being impaired by the new dose of anti-depressant, so he is not yet considered fit to return to Safety Critical Work.

The authorised health professional advises Serge's manager that Serge is not yet ready to return to work as a train controller but is fit for alternate duties. Further review is planned in one month's time.

One month later - second review

Authorised Health Professional

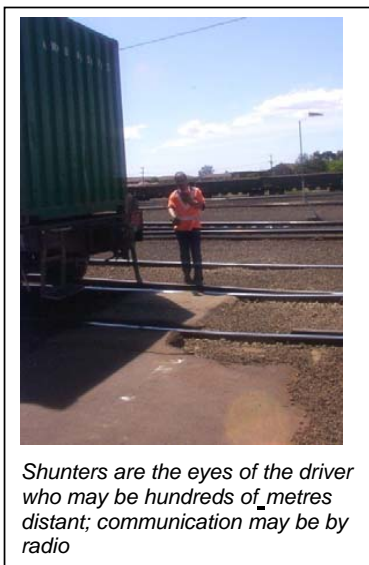
Serge's treating doctor has advised that Serge is progressing well. His mood has improved and he is stable on 40mg of paroxetine. He has not reported any drowsiness and his doctor is aware of the Drug Legislation for Transport Workers. The situation at home is improving.

As a result, the authorised health professional is of the opinion that Serge is fit to return to work as a Train Controller, but intends to monitor his progress by reviewing him in 3 months.

Employer

The employer notes the report results and flag's Serge for triggered assessment in 3 month's time and arranges for Serge to return to work as a Controller.

3. Case Study 3: Station Officer presenting for Periodic Health Assessment



Shunters are the eyes of the driver who may be hundreds of metres distant; communication may be by radio



Shunters repeatedly board and alight from rolling stock

Disclaimer: these photos are of healthy persons taken in the course of their work and do not imply any connection to the case study.

3.1 Presentation

Jack is a 48 year old Station Officer who attends for his periodic Safety Critical Worker (Category 1) Health Assessment. Jack is based at a major country station and shunting trains is part of his regular work duties. He works a 24 hr, 7day a week shift roster. His last assessment 5 years ago reported him fit for work. Under the new National Standard, the risk assessments for his duties have placed him into Category1 because of his shunting duties. He considers himself fit and well. He takes no medications and does not regularly attend his family doctor.

3.2 Shunting Task Description and Health Requirements

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>Shunting work occurs mainly in freight rail yards and involves marshalling the trucks or carriages that make up a train. A rake of trucks may be hundreds of metres long and may contain dangerous goods.</p> <p>The shunter works as a team with the driver of the engine and sometimes a signaller, using radio communication. The shunter acts as the eyes of the driver and controls precise shunting. The work involves:</p> <ul style="list-style-type: none"> • walking extensively over uneven ballast; • opening and closing coupling mechanisms; <p>(cont)...</p>	<p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when performing shunting activities; • Musculoskeletal strength and agility in order to walk/run on uneven surfaces; apply or release brakes to carriages and trucks; board/alight from carriages; couple air compression lines which requires bending in restricted spaces; • The ability to communicate via signal phones, radios and at a distance to a workgroup; <p>(cont)...</p>

<ul style="list-style-type: none"> • applying or releasing brakes to carriages and trucks; • reading colour signals and flags but at lower speeds than train drivers; • using spoken and hand signals to communicate during shunting movements; • coupling air compression lines; • boarding/alighting from trucks and carriages. <p>Shunters also work shiftwork.</p>	<ul style="list-style-type: none"> • The ability to determine colour signals and use coloured flags. <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
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3.3 Documentation

- Safety Critical Worker Health Questionnaire (completed by Jack)
- Safety Critical Worker Health Assessment Request and Report Form (completed by Jack's employer)
- Report of previous Health Assessment ("Fit all duties" provided by employer)
- Safety Critical Worker Health Assessment Record (provided by employer for completion by examining health professional)
- Audiometry results, forwarded by provider)
- Fasting blood tests and ECG (completed one week prior to visiting the doctor and forwarded by provider to the examining health professional)

3.4 Assessment

At the health assessment the authorised health professional notes that Jack is obese and has a fasting blood glucose of 13.4 but his lipids and other cardiac risk factors are normal. He has no history of diabetes but his father and older brother both have NIDDM. He has no evidence of end organ damage related to diabetes. Taking into account his new diagnosis of diabetes mellitus, his cardiac risk score is low at 15.

3.5 Action

Authorised Health Professional

The authorised health professional diagnoses that Jack has Type 2 diabetes mellitus without complications at present.

The authorised health professional refers Jack to his general practitioner for further tests such as an HBAIC to confirm the diagnosis and for ongoing management of his condition. The health professional writes a referral letter to the general practitioner and telephones on the day with Jack's consent to explain the situation. He alerts the general practitioner to the fact that Jack works shifts and this should be considered when discussing his diet and any medication. He also advises that Jack is a High Level Safety Critical Worker and the effects that poor glucose control could have on his job performance. Because of this, he advises the general practitioner that Jack should work regular day shifts on the station until his diabetes is stabilised and that he will review him in 4 weeks time.

The authorised health professional discusses the diagnosis of diabetes with Jack and the need to see his GP as soon as possible and the need to comply with treatment to help ensure that he will be able to continue in his job. He advises Jack that he is Fit for Duty Subject to roster modification and he will be reviewed in 4 weeks time. The authorised health professional advises Jack that he should work on regular day shifts until his condition is stabilised.

The authorised health professional telephones Jack's line manager and advises that he is "Fit for Duty Subject to Job Modification" in that he should work to a regular Day Shift roster but can continue with his normal duties on the station. In the meantime. The line manager advises the authorised health professional that Jack won't be required to do much shunting of trains during the day as most of the freight trains operate during the evening. He completes the report form advising the employer of this and that review is scheduled for one month's time.

Employer

The employer records the details of the recommendations and arranges a review assessment with the authorised health professional in one month. The employer is able to provide a regular day shift roster for Jack during this period.

General Practitioner

Jack is reviewed by his GP the next day. A further blood sample is taken which confirms the diagnosis. A second blood glucose reading is 12.8 and the HBAIC is 7.4% indicating moderate control. The GP counsels Jack and refers him to a dietitian for advice. It is likely that Jack's diabetes will be adequately controlled by diet. Jack begins a (low glycaemic) diet and purchases a blood glucose monitor. At review with his GP 3 weeks later, his blood glucose readings are all in the 6-10 range and his control has improved with an HBAIC down to 6.2% indicating good control. These results are relayed to the authorised health professional.

One Month Later

Authorised Health Professional

The authorised health professional reviews Jack who brings along his blood glucose book. The general practitioner has forwarded copies of blood test results and the dietitian has written a report on Jack's progress. Jack has lost 2 kg and is feeling well.

The authorised health professional advises Jack that he is now fit to return to work performing his normal roster. He advises Jack on the need to maintain good control of his sugars, to eat regular meals whilst on shift work and to maintain his weight loss. Jack is also advised that he is obliged to inform his employer if he is prescribed any medication in the future.

Jack is fit for High Level Safety Critical Work Subject to Review according to the medical criteria.

The authorised health professional advises the employer by phone and forwards a completed form. A recommendation for review at twelve months after resuming normal duties is made. If meals and shift work hours are a problem the possibility of permanent alteration of hours may be raised (Fit Subject to Job Modification).

12 months later

Authorised Health Professional

Jack does not have any problems with adjusting to shift work with his meals but his diabetic control is poor. His record of his self-measured sugars over the past 12 months shows his sugars have been in the 10-18 range. Jack has now gained 8kg and is feeling tired and lacking energy.

Following this review the authorised health professional recommends that Jack is Temporarily Unfit for Safety Critical work. Jack admits he has not stuck to his diet and has rarely contacted his GP. His HBAIC is 9.8% indicating poor control of his diabetes. Jack is advised that he must promptly return to his GP for review. The authorised health professional phones the doctor and advises in writing that Jack will need to cease safety critical work until his diabetes has stabilised. His manager is informed also. Review is planned in 1 month.

Jack returns in one month. He has commenced metformin 750mg twice daily. He advises the authorised health professional that he has been taking this medication for 2 weeks. There have been no symptoms of hypoglycemia and he is feeling well. As there are no side effects from the medication the Authorised Health Professional is satisfied that Jack may return to Safety Critical work but also advises him of the symptoms of hypoglycaemia, the need to carry sugar and to report any deterioration of his condition, and emphasises the importance of regularly attending his GP.

Review is recommended every 12 months. This review will concentrate on the control of his diabetes and any end-organ damage.. Jack will be required to produce a record of his blood sugar levels and will need to have an HBAIC performed by his general practitioner prior to the review appointment. Jack is advised of this. The recommendation Fit Subject to Review is completed and sent to the employer.

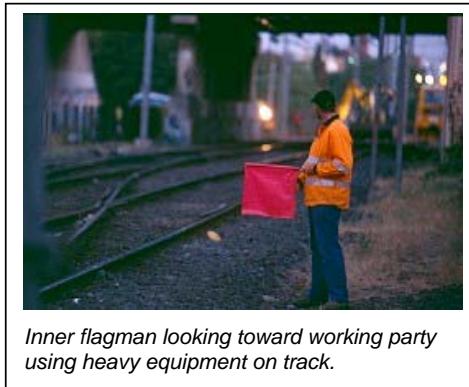
Employer

The employer records the details of the recommendations and arranges a review assessment with the authorised health professional in one year's time.

4. Case Study 4: Flagman presenting for Triggered Health Assessment



Outer flagman putting detonators on track.



Inner flagman looking toward working party using heavy equipment on track.

Disclaimer: these photos are of healthy persons taken in the course of their work and do not imply any connection to the case study

4.1 Presentation

Alex is a 35-year-old flagman who has been referred for a Triggered Assessment due to a *funny turn* at work. Alex had his last Periodic Safety Critical Worker (Category 1) Health Assessment three years ago at which he was reported Fit for Duty. This is a triggered referral from management.

4.2 Task Description and Health Requirements

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>Outer flagman</p> <p>An outer flagman positioned at 2000m from the obstruction in country areas (1200m in metropolitan areas) places 3 Audible Track Warning devices (ATWs or detonators) 10m apart on the track and, whilst positioned at least 40m from the ATWs, displays a Caution signal to train Drivers. On hitting these ATWs, the Driver of an approaching train is required to bring the train under control and be prepared to stop at the next hand signal location.</p> <p>After passage of a train, the outer flagman replaces the ATWs and resumes display of the Caution signal in preparation for the next train. During periods of heavy traffic, particularly in metropolitan areas, trains could be only a few minutes apart.</p> <p>(cont)...</p>	<p>Health requirements relating to the safety of the rail system:</p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance to detect and respond appropriately to train movements • Adequate visual acuity in order to be able to see near and far distances to detect train movement; • Normal colour vision in order to distinguish red and green signals and operate flags; • Adequate hearing and speech to be able to communicate via signal phones, radios and at a distance to a workgroup; <p>(cont)...</p>

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>The outer flagman is also required to remove the ATWs from the track when directed by the site safeworking coordinator to allow passage of a train from the other direction or at the end of the required protection period.</p> <p>An outer flagman may be required to operate alone in isolated locations for extended periods.</p> <p>Inner flagman</p> <p>An inner flagman positioned at 200m from the obstruction displays a Stop signal unless directed otherwise by the site safeworking coordinator. The inner flagman must be positioned so that he can be seen clearly by the driver of an approaching train (who should be travelling at reduced speed expecting to stop) and be clearly visible from the worksite. Where both conditions cannot be achieved, additional intermediate flagmen may be positioned to ensure the required visibility in both directions.</p> <p>The site safeworking coordinator normally has radio or mobile phone contact with all the outlying members of the protection party but other means of communication such as visual or audible signals may also be used.</p> <p>Protection party duties may often rotated through other suitably qualified members of the site work group to help ensure high levels of vigilance are maintained throughout the protection period.</p>	<p>Health requirements relating to the safety of the rail worker:</p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • Physical mobility to move quickly out of the road of an approaching train; • Adequate visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast (uneven ground). They are also required to stand for long periods of time.

4.3 Documentation

- Safety Critical Worker Health Questionnaire (completed by Alex)
- Safety Critical Worker Health Assessment Request and Report Form (completed by Alex's employer and indicating Triggered Assessment)
- Report of previous Health Assessment (provided by employer)
- Safety Critical Worker Health Assessment Record (provided by employer for completion by health professional)

4.4 Assessment

Alex advises the authorised health professional that he has had three funny turns over the past two years including a recent one at work. He has not been investigated or treated for these episodes. He states he gets no warning and cannot recall what happens. He thinks he is "out to it" for a few minutes, he cannot recall any injury such as bitten tongue or incontinence and he is just a bit sore generally when he recovers. He had a head injury five years ago with a fractured skull from a motorbike incident. He has no neurological or cardiac symptoms. At his previous

Periodic Health Assessment his cardiac risk score was acceptable, the ECG normal and the AUDIT score was low.

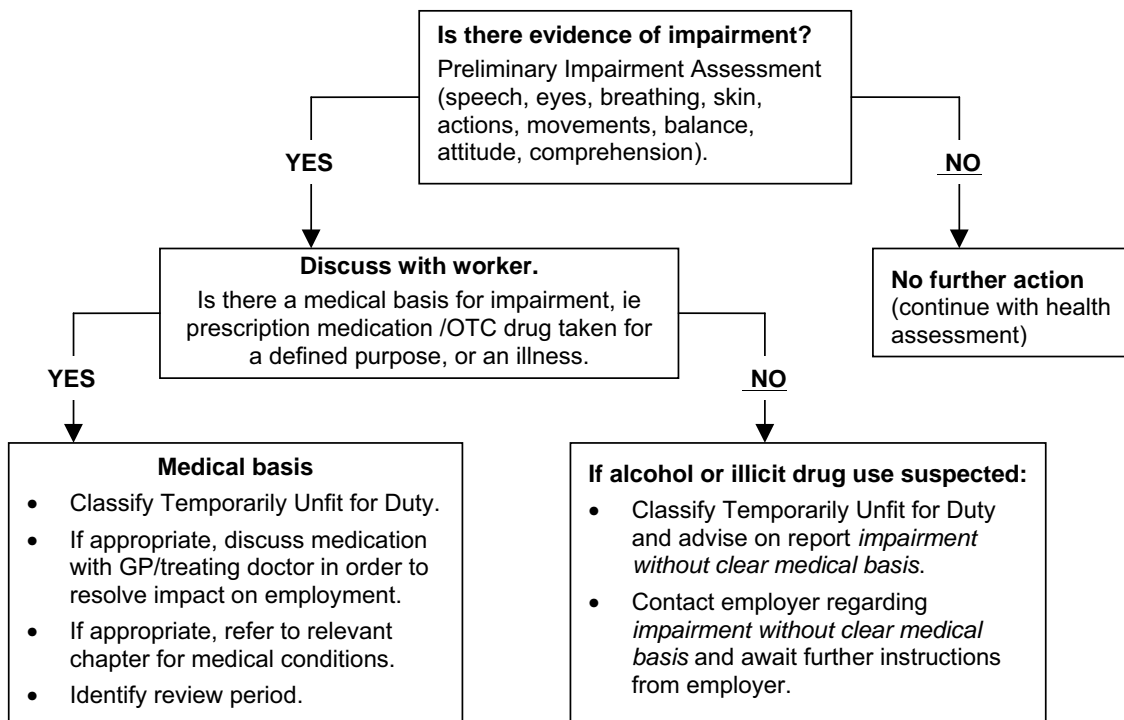
Clinical examination is essentially normal.

4.5 Action

Authorised Health Professional

Alex has an undiagnosed disorder (undifferentiated illness) that is predisposing him to sudden loss of awareness and this is not compatible with Safety Critical Work. The authorised health professional considers a wide range of disorders that may cause *funny turns* including drug or alcohol abuse.

Drug and Alcohol Impairment Assessment and Management



If drug abuse is suspected the health professional may contact the employer and advise that Alex has an impairment for which a medical basis is not apparent. Then the employer may request Alex to have a urine test for drugs. Otherwise Alex would be referred to his general practitioner for investigation. The safety critical nature of his job would be emphasised to the general practitioner and to any specialist subsequently involved.

The authorised health professional considers a medical cause is likely and discusses his concerns with Alex and the need to see his general practitioner. He advises Alex that he is assessed as Temporarily Unfit for Duty and will see him after results of investigations are to hand. The health professional may also ask the employer if any of Alex’s workmates saw his turns and whether they can give any more information.

The authorised health professional phones Alex’s supervisor to indicate that he is Temporarily Unfit for Duty pending further investigation. The specifics of Alex’s condition are not discussed but the health professional indicates that Alex has been referred to his general practitioner and may require specialist referral. He completes the report form and forwards it to the employer, advising that Alex

is Temporarily Unfit for Duty but may perform Non-Safety Critical Work (where he can be seen by others if he becomes unwell). The report indicates that Alex will be reviewed in one month's time.

If no cause of the turns is found or they cannot be treated adequately then Alex would be Permanently Unfit for Duty as a Safety Critical Worker and alternative duties would need to be considered for him.

Employer

The manager records the requirement for review in one month's time as well as Alex's work restrictions. He is able to provide Alex with temporary non-safety critical alternative employment working in a Controlled Environment.

General Practitioner and specialist

Alex attends his general practitioner and undergoes initial blood tests and resting ECG. Because of his past head injury a possible neurological cause of the condition needs to be excluded. He is referred to a specialist neurologist. Results from EEG and MRI of the brain indicate that Alex has epilepsy. Medication is prescribed by the specialist and a report forwarded to the authorised health professional.

One month later

Authorised Health Professional

It is important that the worker's specific epilepsy syndrome and seizure types are identified so that an adequate evaluation of the person's safety can be undertaken (including the risk of further seizures) and the appropriate therapy instituted. A full report will be required from the treating neurologist to assist in determining Alex's long-term employment options.

On review of the specialist report the authorised health professional advises Alex that he is Unfit to resume his High Level Safety Critical Work as a flagman. His employer is advised that this is a long-term restriction. Alex could work in maintenance work or other duties provided it is a Controlled Environment or that he is accompanied by others while working on the track.

Employer

Alex's manager records this information and ensures Alex is not placed in Safety Critical Work. Alex is no longer a SCW or an ATTP who works in an Uncontrolled Environment. As a result he is not scheduled for any regular health assessments in future.

If Alex's epilepsy is stabilised over the next few years his job restrictions may be reviewed in conjunction with a specialist report particularly if he wishes to work as an ATTP in an uncontrolled environment. It is unlikely he would return to High Level Safety Critical work.

5. Case Study 5: Tram Driver presenting for a Triggered Health Assessment



Tram driver with left hand on combined power/break/deadman's handle



Trams travel on busy roadways.

Disclaimer: these photos are of healthy persons taken in the course of their work and do not imply any connection to the case study

5.1 Presentation

Lee is a 35 year-old tram driver who has been referred for a Triggered Assessment due to increasingly unusual behaviour at work. It is known to the company medical officer that Lee has a history of bipolar disorder but has been stable for some considerable time on medication.

5.2 Description and Health Requirements

ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>The tram driver is required only to drive the tram. Conductors dispense tickets on this particular network.</p> <p>Drivers may be required to operate several types of trams that differ with respect to the types of controls and vigilance systems.</p> <p>The driver usually controls the tram by using a console of buttons and switches plus hand levers and foot pedals. There may also be side mirrors and video to aid internal and external views.</p> <p>The driver is required to undertake continuous skilled driving to meet a timetable. The main stress on the driver is the need to drive defensively in road traffic because a tram can only brake; it is not possible to take avoidance.</p> <p>In the case of an emergency or incident the driver is required to get out of the tram and act to protect the safety of the network. The road is usually predictable and well lit.</p>	<p>Health requirements relating to the safety of the rail system:</p> <ul style="list-style-type: none"> • Good physical and psychological health to maintain vigilance when driving to protect the safety of the rail network; • Adequate level of fitness and dexterity to enable driver be able to get out onto the road, in the case of an emergency; • Visual acuity and visual fields to ensure safe operation of the tram; • Normal colour perception is not regarded as essential for tram drivers. They are similar to commercial vehicle drivers who do not require red vision because red traffic lights give positional cues. Also trams are usually on well-lit roads which enables detection of emergency signs. <p>Health requirements relating to the safety of the rail worker:</p> <p>Covered above.</p>

5.3 Documentation

- Safety Critical Worker Health Assessment Request and Report Form (completed by Lee's employer and indicating Triggered Assessment)
- Report of previous Health Assessment (provided by employer)
- Safety Critical Worker Health Assessment Record (provided by employer for completion by health professional)

5.4 Assessment

Discussion with Lee reveals obvious paranoid ideation and mood elevation. This is similar to previous episodes that have occurred in the past. The authorised health professional assesses that Lee is bordering on psychosis associated with his bipolar disorder.

5.5 Action

Authorised Health Professional

Lee is Temporarily Unfit for rail safety work pending review by his general practitioner and a psychiatrist. After explanation to Lee and with his consent, the health professional contacts Lee's general practitioner by phone to arrange an urgent appointment. He also faxes a referral letter to the general practitioner requesting feedback on Lee's progress.

The authorised health professional also phones Lee's supervisor to inform him of the situation with respect to Lee's fitness for duty but does not discuss specific clinical details. He also informs the supervisor that Lee will not be fit to drive trams for a significant period of time although he may be fit for alternative duties and that further review before return to work is indicated. The health professional completes the health assessment report and forwards it to the supervisor. The health professional indicates that we will review Lee in 8 weeks.

Employer

The employer notes the recommendations and flags Lee for review in 8 weeks.

8 Weeks Later

Lee's treating specialist forwards a report to the authorised health professional recommending that Lee could be fit to return to work in some capacity. He reports that Lee has responded well to treatment, is compliant with medication and has no side effects from his new treatment regime.

Authorised Health Professional

At review, the authorised health professional advises Lee that due to the nature of his condition it will be a significant period of time before he will be able to resume his driving duties, but he would be able to return to work as a conductor (the tram operation in question has conductors). Arrangements are made for further review at 6 and 9 months with further feedback from the treating specialist. It is explained to Lee that he may be able to return to driving duties thereafter if he remains stable.

The authorised health professional advises the employer that Lee remains unfit to drive trams but that he could return to conductor duties and that further review is planned at 6 and 9 months with a view to possibly returning to driving duties thereafter.

Employer

The employer notes the recommendations and confirms that conductor duties can be arranged.

At 6 Months

The treating specialist has indicated that Lee continues to be well and remains compliant with treatment.

The authorised health professional advises the employer that Lee is stable but will need to remain stable for a further 3 months before resuming driving duties, but may continue alternative duties as a conductor.

At 9 Months

The treating specialist again advises that Lee remains psychologically well, compliant and free from any medication side effects.

Authorised Health Professional

The authorised health professional advises Lee and his employer that he is fit to resume his full duties including tram driving but that he will be required to have 3 monthly medical review for at least a year. The health professional recommends a practical driving assessment with an experienced driver before clearance to drive.

Employer

The employer records that Lee is to have 3 monthly triggered review, arranges a practical driving assessment before recommencing him on normal driving duties.

PART 4 – MODEL FORMS

1. Safety Critical Worker Health Assessment

1.1 Request and Report Form

The Request and Report form (Blue Form) is the key means of communication between the rail organisation and the Authorised Health Professional.

The form is used as follows:

1. **Part A:** The employer completes PART A, encloses copies of relevant supporting information (eg. previous Health Assessment Report, sick leave summary, relevant worker's compensation reports or critical incident reports) and a copy of the Health Professional Record (Form 1.3), and forwards them to the examining health professional.
2. **Part B:** Upon completion of the assessment, the health professional completes PART B of the form, retains a copy and returns the original form to the employer.
3. **Part C:** The employer completes PART C of the form to indicate the action taken as a result of the assessment.
4. **Part D:** The worker/applicant completes PART D of the form to indicate agreement to the portability of the Health Assessment Record.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION
A COPY SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL

CONFIDENTIAL

Safety Critical Worker Health Assessment REQUEST AND REPORT FORM (BLUE FORM)

IMPORTANT INFORMATION

To the Employer

- Please complete all relevant details in PART A of the form including:
 - Personal details of the worker/applicant.
 - Appointment details.
 - A description of the rail safety duties to be performed by the worker/applicant (or attach Job Description or Task Risk Assessment).
 - The category of risk determined by the tasks and therefore the level of assessment (Category 1 or 2).
 - The type of assessment requested (eg. Pre-placement, Periodic, Triggered).
 - The pathology tests required (High Level Safety Critical Worker only).
 - Audiometry requirements.
- Additional forms and information to be issued with this request include:
 - Health Assessment Record (Green Form) to be completed and retained by the examining health professional.
 - Screen-based Equipment Request and Report Form and Assessment Record (if required).
 - Any additional information relevant to the assessment including copies of previous Health Assessment Report, relevant workers compensation reports, critical incident history and sick leave record.
- On receipt of the completed Health Assessment Report:
 - Complete PART C and take action as appropriate
 - Ask the worker/applicant to complete and sign PART D as required in order to give permission for the health assessment result to be forwarded to another rail organisation.

To the Health Professional

- You are requested to conduct a health assessment to assess the worker's fitness for rail safety duties according to the details provided in PART A of this form and according to Volume 2 of the *National Standard for Health Assessment of Rail Safety Workers*.
- You must sight photo identification of the worker/applicant (eg Rail Safety Worker's Card, driver's licence).
- Please perform the assessment, complete PART B of this form and return to the worker's employer according to instructions noted in PART A, within 7 days of the assessment, OR should the worker be assessed Unfit for Duty, please contact the employer immediately by phone so that appropriate rostering changes may be made.
- Category 1 High Level Safety Critical Workers are required to present for fasting cholesterol (total and HDL), fasting glucose and an ECG for Pre-placement, Change of Grade (Risk Category) and Periodic Health Assessments. Results will be forwarded to you directly.
- Both Category 1 and Category 2 Safety Critical Workers are required to have audiometry for Pre-placement, Change of Grade (Risk Category) and Periodic Health Assessments. This will be arranged separately if audiometry facilities are not available at your practice.
- You may need to contact the worker's/applicant's nominated doctor to discuss conditions that may affect their fitness for rail safety work. Such contact should be made with the worker's signed consent (provision for this is included on the Green Form).
- Details of the examination should be recorded on the enclosed Health Assessment Record (Green Form). This record is confidential and should be retained by you, not returned to the employer. The employer's Chief Medical Officer (if they have one) may contact you for more information regarding the worker's condition.
- For more detailed information about the conduct of health assessments for rail safety workers see Volume 2 of the *National Standard for Health Assessment of Rail Safety Workers*.

PART A – Employer to complete

1. Worker/Applicant Details	
Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:

2. Rail Organisation Details		
Supervisor/contact:		
Date of request:	Phone:	Facsimile:
Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):		

3. Health Assessment Appointment Details:	
Doctor/Practice:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

4. Description of Duties (or see attached Job Description or Task Risk Assessment)

5. Supporting information relevant to the assessment (tick information provided):
<input type="checkbox"/> Previous relevant Health Assessment Report(s)
<input type="checkbox"/> Relevant sick leave for last 12 months (number of days, not details): _____
<input type="checkbox"/> Relevant Workcover history
<input type="checkbox"/> Relevant Critical Incident episodes
<input type="checkbox"/> Positive Drug and Alcohol Assessment Reports
<input type="checkbox"/> Record of involvement in serious rail safety incidents
<input type="checkbox"/> Other (specify): _____ _____ _____ _____ _____ _____ _____

6. Type of Assessment required
<input type="checkbox"/> Pre-placement / Change of Risk Category Health Assessment
<input type="checkbox"/> Periodic Health Assessment
<input type="checkbox"/> Triggered Health Assessment (specify reason): _____
<input type="checkbox"/> Drug Screen
<input type="checkbox"/> Screen-Based Equipment Examination
<input type="checkbox"/> Other (specify): _____

7. Risk Category/Level of Assessment
<input type="checkbox"/> Category 1 (High Level Safety Critical Worker)
<input type="checkbox"/> Category 2 (Safety Critical Worker)
Specific Health Requirements:
Colour vision <input type="checkbox"/> Normal
<input type="checkbox"/> Colour Defective Safe A
<input type="checkbox"/> Colour Defective Safe B (SBE)
Hearing <input type="checkbox"/> Driver
<input type="checkbox"/> Non Driver / Other
Musculoskeletal (note specific requirements): _____ _____ _____

8. Tests Ordered:
Cardiac Risk Assessment (Category 1 only)
<input type="checkbox"/> Fasting Cholesterol (total and HDL)
<input type="checkbox"/> Fasting Plasma Glucose
<input type="checkbox"/> Resting ECG
<input type="checkbox"/> Drug Screen
Pathology ordered from: _____
<input type="checkbox"/> Audiometry (Category 1 and 2)
Audiometry ordered from: _____

Worker/Applicant Name:		
Employee No.	Date of birth:	Date of Request:

PART B – Health Professional to complete

<input type="checkbox"/> I have sighted the worker's Rail Safety Worker Card Number _____ OR <input type="checkbox"/> I have sighted the worker's/applicant's photo ID (eg driver's licence, passport) Number _____ I certify that I have examined the worker/applicant named in accordance with the medical standards contained in the <i>National Standard for Health Assessment of Rail Safety Workers, Volume 2: Assessment Procedures and Medical Criteria</i> and in my opinion the worker/applicant is (tick appropriate box):	
<input type="checkbox"/> Fit for Duty – Meets all relevant medical criteria.	<input type="checkbox"/> Local doctor referral <input type="checkbox"/> Conditional on corrective lenses <input type="checkbox"/> Conditional on hearing aid <input type="checkbox"/> Other condition (specify): _____ _____ _____
<input type="checkbox"/> Fit for Duty Subject to Review – Does not meet all medical criteria, but could perform rail safety work if the condition is sufficiently under control and worker is more frequently reviewed than prescribed under periodic review.	I recommend: <input type="checkbox"/> Review at this practice DATE: <input style="width:100px;" type="text"/> <input type="checkbox"/> Specialist referral <input type="checkbox"/> Local doctor referral <input type="checkbox"/> Company Medical Officer referral <input type="checkbox"/> Laboratory tests This certificate is valid until: <input style="width:100px;" type="text"/>
<input type="checkbox"/> Fit for Duty Subject to Job Modification – Does not meet all medical criteria, but could perform rail safety work if suitable modifications were made to the duties.	I recommend the following job modifications: _____ _____ _____
<input type="checkbox"/> Temporarily Unfit for Duty Subject to Review – Does not meet all medical criteria and cannot perform current rail safety tasks but may perform alternative non-safety tasks. May return to full duty pending improvement in condition, response to treatment, confirmed diagnosis of undifferentiated illness.	I recommend the following in terms of management and review: _____ _____ _____
<input type="checkbox"/> Permanently Unfit for Duty – Does not meet the medical criteria and cannot perform the job in the future.	I recommend the following in terms of management and review: _____ _____ _____

Drug Screen Results (Pre-placement only or Change of Grade/Risk Category only):

Health Professional Details (stamp acceptable)		
Name:	Phone:	Facsimile:
Practice address:		
Signature:	Date of Assessment:	

PART C – Employer to complete on receipt of Assessment Report

Action taken as a result of Health Assessment:

<input type="checkbox"/>	Job modification (details): _____
<input type="checkbox"/>	Triggered review (indicate period): _____
<input type="checkbox"/>	Periodic Health Assessment scheduled (details): _____
<input type="checkbox"/>	Redeployment (details): _____
<input type="checkbox"/>	Drug Assessment (details): _____

Part D – Worker to complete regarding portability of assessment result

I, _____ (Print Name) give permission for this health assessment to be forwarded to another rail organisation as confirmation of fitness for duty.

Signature: _____ Date: ____/____/____

1.2 Worker Notification and Health Questionnaire

This form contains the notification to the worker and the Safety Critical Worker Health Questionnaire.

The self-administered questionnaire is a screening tool to help identify conditions that might affect the performance of safety critical work. The questionnaire is not a diagnostic tool and no decision can be made regarding the worker's fitness for duty until the full clinical examination is performed.

The health professional may need to guide or assist with completion of the questionnaire if literacy or cultural background presents a barrier to self-administration by the worker. The health professional will also need to review the answers with the worker to ascertain relevant detail.

Dishonest completion of the questionnaire may be an issue. Workers are required to sign the completed questionnaire in the presence of the examining health professional and the health professional should countersign.

The form is used as follows:

1. **Part A:** The employer requests that the worker/applicant sign the front of the form to indicate that they have read and understood the statements concerning the health information to be provided. The employer completes PART A including appointment details and instructions to the worker/applicant.
2. **Part B:** The worker/applicant completes PART B and presents to the health professional. The worker/applicant signs the form as a true statement and the health professional countersigns.
3. The employer discusses the results with the worker/applicant. The form is retained by the health professional and filed in the workers medical record.

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (other than the Chief Medical Officer if requested)

CONFIDENTIAL

Safety Critical Worker Health Assessment WORKER NOTIFICATION AND HEALTH QUESTIONNAIRE (PINK FORM)

IMPORTANT INFORMATION

To the Worker/Applicant,

- You are required to attend a health assessment as a condition of your employment, to assess your fitness for undertaking rail safety work.
- The health assessment must be completed by (date) _____ to ensure that you are able to carry out normal duties.
- Complete the enclosed questionnaire BEFORE ATTENDING THE APPOINTMENT and provide it to the examining health professional. **The bottom of the questionnaire must be signed by you in the presence of the examining doctor.**
- Take glasses, hearing aid or any other aids required for safety critical work to the appointment.
- Take all medication that you are currently taking to the appointment or a list of such medications.
- Take photo identification with you to the appointment.
- If you are **High Level Safety Critical Worker (Category 1)** you will be required to have a blood test as part of your assessment. So as to get a true reading of your blood sugar and cholesterol (total and HDL) you should not eat for a minimum of 8hr (and no longer than 14hr) before your blood test appointment. You may drink water but should not take sweetened drinks.

What happens if the examining doctor finds a problem with your health?

If the examining doctor finds or suspects something is wrong with your health that you did not know about, they will ask your permission to inform your own doctor. The examining doctor will not treat any medical condition but will give you a letter to take to your own doctor.

If the doctor finds that you do not meet all relevant medical criteria, your supervisor at the rail organisation(s) will discuss with you the appropriate action to be taken. This may include:

- modification to the duties that you undertake for that railway organisation
- scheduling of a further review, tests or specialist referral.

DISCLOSURE OF HEALTH INFORMATION – PLEASE READ CAREFULLY AND SIGN TO INDICATE YOUR UNDERSTANDING OF HOW YOUR HEALTH INFORMATION IS REPORTED, STORED AND ACCESSED

The details of your health assessment will remain confidential and will only be reported to your employer in terms of your fitness for duty. The examining doctor retains all detailed medical papers including your questionnaire responses, test results and the completed record of clinical findings. The examining doctor sends the completed **'Request and Report Form: Safety Critical Worker Health Assessment'** directly to the referring rail organisation indicating your fitness or otherwise for duty.

Where your employer utilises the services of a Chief Medical Officer (CMO), the CMO may request a copy of the examining doctor's clinical report and test results to aid in the management of your health in relation to your work. The CMO must maintain the confidentiality of the records and ensure they are not made available to, or discussed with any other person within the rail organisation.

Other than the above, no information will be disclosed to any other person or organisation without your written permission, except where:

- a notifiable disease is diagnosed which must, by law, be reported to the State authorities
- a report is subpoenaed by a court of law
- the Secretary to the Department of Infrastructure (or another person) is required to conduct an inquiry into a railway accident or incident.

You have the right to access your health records including those held by the authorised health professional and the CMO (if relevant) and the reports held by the rail organisation.

WORKERS DECLARATION

I, _____ (Print Name)

certify that I have read and understood the above statement concerning the health information provided herein.

Signature: _____

Date: _____

PART B - SAFETY CRITICAL WORKER HEALTH QUESTIONNAIRE– Worker to complete

This questionnaire must be completed in order to help assess your fitness for safety critical work.

Please answer the questions by ticking the correct box or circling the appropriate response. If you are not sure, leave question blank and ask the examining health professional what it means.

The health professional will ask you more questions during the assessment.

		NO	YES			NO	YES
1.	Are you currently being treated by a doctor for any illness or injury?	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
2.	Are you receiving any medical treatment or taking any medication (prescribed or otherwise)? <i>(Please take any medications with you to show the doctor) Please note brief details</i>	<input type="checkbox"/>	<input type="checkbox"/>			
3.	Have you ever had, or been told by a doctor that you had any of the following?	NO	YES	NO	YES	NO	YES
3.1	High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Colour blindness	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Heart disease	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Kidney disease	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Chest pain, angina	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Diabetes	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Any condition requiring heart surgery	<input type="checkbox"/>	<input type="checkbox"/>	3.18	Neck, back or limb disorders	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Palpitations/irregular heartbeat	<input type="checkbox"/>	<input type="checkbox"/>	3.19	Hearing loss or deafness or had an ear operation or use a hearing aid?	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Abnormal shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>	3.20	Do you have difficulty hearing people on the telephone (including use of hearing aid if worn)?	<input type="checkbox"/>	<input type="checkbox"/>
3.7	Do you smoke or have you ever been a smoker?	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Have you ever had, or been told by a doctor that you had a psychiatric illness or nervous disorder?	<input type="checkbox"/>	<input type="checkbox"/>
3.8	Head injury, spinal injury	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Have you ever had any other serious injury, illness, operation, or been in hospital for any reason?	<input type="checkbox"/>	<input type="checkbox"/>
3.9	Seizures, fits, convulsions, epilepsy	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Do you use illicit drugs?	<input type="checkbox"/>	<input type="checkbox"/>
3.10	Blackouts or fainting	<input type="checkbox"/>	<input type="checkbox"/>				
3.11	Migraine	<input type="checkbox"/>	<input type="checkbox"/>				
3.12	Stroke	<input type="checkbox"/>	<input type="checkbox"/>				
3.13	Dizziness, vertigo, problems with balance	<input type="checkbox"/>	<input type="checkbox"/>				
3.14	Double vision, difficulty seeing	<input type="checkbox"/>	<input type="checkbox"/>				
4.	Please tick the box 'NO' or 'YES' in response to the following:			NO	YES		
4.1	Have you ever had, or been told by a doctor that you had a sleep disorder, sleep apnoea, or narcolepsy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.2	Has anyone noticed that your breathing stops or is disrupted by episodes of choking during your sleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Epworth Sleepiness Scale							
4.3	How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired? This refers to your usual way of life in recent times. Even if you haven't done some of these things recently try to work out how they would have affected you. Use the following scale to choose the most appropriate number for each situation:						
		<i>0 = would never doze off</i>		<i>2 = moderate chance of dozing</i>			
		<i>1 = slight chance of dozing</i>		<i>3 = high chance of dozing</i>			
		Chance of Dozing (0 to 3)					
Situation		0	1	2	3		
4.3.1	Sitting and reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.2	Watching TV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.3	Sitting, inactive in a public place (eg. a theatre or meeting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.4	As a passenger in a car for an hour without a break	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.5	Lying down to rest in the afternoon when circumstances permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.6	Sitting and talking to someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.7	Sitting quietly after a lunch without alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.8	In a car, while stopped for a few minutes in the traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

5. (AUDIT Questionnaire) Please circle the answer that is correct for you:

	(0)	(1)	(2)	(3)	(4)
5.1 How often do you have a drink containing alcohol?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.2 How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 to 5	5 to 6	7 to 9	10 or more
5.3 How often do you have six or more drinks on one occasion?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.4 How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.5 How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.6 How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.7 How often during the last year have you had a feeling a guilt or remorse after drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.8 How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week
5.9 Have you or someone else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year
5.10 Has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year

6. (K10 Questionnaire) Please tick the answer that is correct for you:

	All of the time (5)	Most of the time (4)	Some of the time (3)	A little of the time (2)	None of the time (1)
6.1 In the past 4 weeks, about how often did you feel tired out for no good reason?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 In the past 4 weeks, about how often did you feel nervous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3 In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 In the past 4 weeks, about how often did you feel hopeless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 In the past 4 weeks, about how often did you feel restless or fidgety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.6 In the past 4 weeks, about how often did you feel so restless you could not sit still?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.7 In the past 4 weeks, about how often did you feel depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.8 In the past 4 weeks, about how often did you feel that everything was an effort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.9 In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.10 In the past 4 weeks, about how often did you feel worthless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Worker's Declaration (in presence of health professional):

I, _____ (Print Name)

certify that to the best of my knowledge the above information supplied by me is true and correct

Signature of worker: _____

Signature of health professional: _____

Date: ____ / ____ / ____

IMPORTANT: For privacy reasons, the completed questionnaire MUST NOT be returned to the employer (other than to the Chief Medical Officer if requested).

1.3 Record for Health Professional

The Health Assessment Record for Health Professionals is a tool that guides the health assessment process. It provides a standard format for recording the results of the assessment, which should then be filed by the examining health professional in the worker/patient's medical history.

The form should be used as follows:

1. **Part A:** The employer completes PART A, and includes the form with the Request and Report Form (Form 1.1) and forwards to the health professional.
2. **Part B:** The health professional records the results of the clinical examination in PART B and retains the form in the worker's medical record. The form also includes provision for the worker/patient to provide signed consent for the health professional to contact their treating doctor.
3. The completed Health Assessment Record is not to be forwarded to the employer for reasons of privacy. The health professional should summarise the results in terms of fitness for duty on the Request and Report Form (Form 1.1).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (Other than the Chief Medical Officer if requested)

CONFIDENTIAL

Safety Critical Worker Health Assessment RECORD FOR HEALTH PROFESSIONAL (GREEN FORM)

PART A – Employer to complete

1. Worker/Applicant Details		
Family Name:	First Names:	
Company:		
Location:		
Employee No:	Date of birth:	
2. Rail Organisation Details		
Supervisor/contact:		
Date of request:	Phone:	Facsimile:
3. Health Assessment Appointment Details		
Doctor/Practice:		
Address:		
Phone:	Facsimile:	
Appointment Date:	Time:	

PART B – Examination Record – Health Professional to complete

1. Cardiovascular System:

1.1 Blood Pressure (repeat if necessary)
 Systolic mm Hg
 Diastolic mm Hg

1.2 Pulse Rate:
 Regular Irregular

1.3 Heart Sounds:
 Normal Abnormal

1.4 Peripheral Pulses:
 Normal Abnormal

1.5 Calculation of Cardiac Risk Score (High level SCW examination only). See Cardiovascular chapter for scoring.

	Data	Score
Age/sex		
Smoker: Y/N		
Blood Pressure (systolic)		
ECG (left ventricular hypertrophy)		
Fasting cholesterol – TOTAL		
– HDL		
Fasting plasma glucose (diabetes)		
TOTAL SCORE		

(cont)....

1.5 Cardiovascular System (cont)
 Other clinical considerations (refer section 4.2 Cardiovascular Disease) eg symptoms, family and past history, co-morbidity, work conditions:

2. Musculoskeletal / Neurological:

2.1 Cervical spine rotation
 Normal Abnormal

2.2 Back movement
 Normal Abnormal

2.3 Upper Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

2.4 Lower Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

2.5 Gait Normal Abnormal

2.6 Romberg's Test (A pass requires the ability to maintain balance while standing with shoes off, feet together side by side, eyes closed and arms by sides, for thirty seconds):
 Normal Abnormal

1.4 Screen-Based Equipment (SBE) Eye Examination Request and Report Form

Some Safety Critical Workers may perform duties that require them to have a Screen-Based Equipment (SBE) Eye Examination. This model form is designed for this purpose.

The form is used as follows.

1. **Part A:** The employer completes PART A and forwards to the health professional together with the SBE Eye Examination Record for Health Professionals (Form 1.5).

Note: The health professional retains the Examination Record and does not return it to the employer.
2. **Part B:** The health professional summarises the results of the examination in PART B of the form and includes recommendations for corrective lenses. The Report Form is then sent to the employer.
3. **Part C:** Should corrective lenses be prescribed specifically for SBE work, the worker/applicant has the prescription filled and signs the declaration in PART C.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION

CONFIDENTIAL

Screen-Based Equipment Eye Examination REQUEST AND REPORT FORM (YELLOW FORM)

PART A – Employer to complete

1. Worker/Applicant Details

Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:

2. Rail Organisation Details

Supervisor/contact:		
Date of request:	Phone:	Facsimile:
Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):		

3. Health Assessment Appointment Details

Optometrist:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

PART B - Examination Record – Health Professional to complete and return to employer

Fit SBE work / does not require visual correction.	<input type="checkbox"/>
Fit SBE work / with current prescription.	<input type="checkbox"/>
Current prescription is <u>not</u> suitable for SBE work, therefore there is a need for lenses prescribed <u>specifically</u> for SBE work.	<input type="checkbox"/>
The person requires glasses prescribed specifically for SBE work, because of a visual problem that <u>only</u> arises with SBE work.	<input type="checkbox"/>
I certify I have prescribed glasses that <u>only</u> need to be used for SBE work, as this employee does not need to use glasses for other visual tasks.	<input type="checkbox"/>
Provider Name:	
Provider No:	Phone:
Provider Signature:	Date:
The above section must be completed by the Optometrist prior to employee re-imburement	

PART C – Worker Declaration – Worker to complete

I have obtained glasses specifically for SBE work as prescribed by this provider. Attached are:	
(a) The original itemised receipt	
(b) Health Benefit refund towards cost of glasses (if applicable)	
Signature:	Date:

1.5 Screen-Based Equipment (SBE) Eye Examination Record for Health Professional

This form guides the health professional in undertaking the SBE examination.

The form should not be returned to the employer.

The results should be summarised on the Request and Report form (Form 1.4).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION (Other than the Chief Medical Officer if requested)

CONFIDENTIAL

**Screen-Based Equipment Eye Examination
RECORD FOR HEALTH PROFESSIONAL
(ORANGE FORM)**

PART A – Employer to complete

1. Worker/Applicant Details

Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:
Is a multi-coloured screen used for Safety Critical Work?	

2. Rail Organisation Details

Supervisor/contact:		
Date of request:	Phone:	Facsimile:

3. Health Assessment Appointment Details

Optometrist:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

PART B – Examination Record – Health Professional to complete and retain

	No	Yes
1. Does the worker wear glasses or contact lenses? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there a history of eye disorders? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
3. Is external eye examination normal? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Is Distance Visual Acuity (Snellen chart) normal? (Fail is 2 or more errors in 6/9 line) Specify _____	- Right <input type="checkbox"/>	<input type="checkbox"/>
	- Left <input type="checkbox"/>	<input type="checkbox"/>
5. Is acuity at 45cm and 70cm (Times Roman Chart or equivalent) normal? (Fail is 2 or more errors of 20 words of N6 or N12 respectively) Specify _____	- Right <input type="checkbox"/>	<input type="checkbox"/>
	- Left <input type="checkbox"/>	<input type="checkbox"/>
6. Is colour vision (where multi-coloured screens are used for safety critical work) normal? (Ishihara test (fail is 2 or more errors/12 plates) If abnormal conduct Farnsworth D15 – Normal? Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
7. For OHN use: Pass <input type="checkbox"/> Refer <input type="checkbox"/>		
8. Clinical Notes: (In the event of an abnormality being found which requires optical correction, please consider all other optical requirements of the job to be included in the lens prescription). _____ _____		

Ref: Eyesight testing of users of screen-based equipment. NOHSC 1992

2. Track Safety Health Assessment

2.1 Request and Report Form

The Request and Report Form for the Track Safety Health Assessment is used as follows:

1. **Part A:** The employer asks the worker/applicant to sign the front of the form to indicate that they have read and understood the statements concerning the health information to be provided. The employer completes PART A, encloses a copy of the Health Assessment Record for Health Professionals (Form 2.2) and forwards to the examining health professional.
2. **Part B:** Upon completion of the assessment, the health professional completes PART B of the form, retains a copy and returns the original form to the employer.

The health professional also completes the Health Assessment Record (Form 2.2) and retains it.
3. **Part C:** The employer completes PART C of the form to indicate the action taken as a result of the health assessment.
4. **Part D:** The worker/applicant completes PART D of the form to indicate agreement to the portability of the assessment.

THE COMPLETED FORM SHOULD BE RETURNED TO THE RAIL ORGANISATION

CONFIDENTIAL

Track Safety Health Assessment REQUEST AND REPORT FORM (MAUVE FORM)

IMPORTANT INFORMATION

To the Worker/Applicant

- You are required to attend a health assessment as a condition of your employment, to assess your fitness for undertaking rail safety work.
- The health assessment must be completed by (date) _____ in order to ensure that you are able to carry out normal duties.
- Please ensure that you: take to the appointment: glasses, hearing aid or any other aids required for rail safety work; all medication that you are currently taking and photo identification.
- The examining health professional may ask your permission to speak to your GP.
- You may be required to attend for audiometry test of drug screen before attending the health assessment.
- If the examining health professional finds or suspects something is wrong with your health that you did not know about, they will ask permission to inform your own doctor. The examining health professional will not treat any medical condition but will give you a letter to take to your own health professional for treatment.
- If the health professional finds that you do not meet all relevant medical criteria your supervisor at the rail organisation(s) will discuss the appropriate action to be taken. This may include modification to the duties that you undertake for that railway organisation or scheduling of a further review, tests or specialist referral

To the Employer

- Please complete all relevant details in PART A of the form including:
 - Personal details of the worker/applicant
 - Appointment details if appropriate
 - Description of the rail safety duties to be performed by the worker/applicant
 - Type of assessment requested.
- Upon receipt of the completed Health Assessment Report from the examining health professional, please complete Section C indicating the action taken, and ask employee to complete Part D as required.

To the Health Professional

- You are requested to conduct a health assessment to assess the worker's/applicant's fitness for rail safety work in accordance with the details provided in PART A of this form and in accordance with Volume 2 of the *National Standard for Health Assessment of Rail safety Workers*.
- Please perform the assessment, complete PART B of this form and return to worker's supervisor according to the instructions in PART A.
- Should the worker be assessed Unfit for Duty please contact the employer immediately so that appropriate rostering changes may be made.
- Details of the assessment should be recorded on the enclosed Track Safety Health Assessment Record form. This record is confidential and should be retained by you, not returned to the employer. The employer's chief medical officer may contact you for more information regarding the worker's condition.
- For more detailed information about the conduct of health assessments for rail safety workers see Volume 2 of the *National Standard for Health Assessment of Rail safety Workers*.

To the Worker: DISCLOSURE OF HEALTH INFORMATION – PLEASE READ CAREFULLY AND SIGN TO INDICATE YOUR UNDERSTANDING OF HOW YOUR HEALTH INFORMATION IS REPORTED, STORED AND ACESSED

The details of your health assessment will remain confidential and will only be reported to your employer in terms of your fitness for duty. The examining health professional retains all detailed medical papers including your test results and the completed record of clinical findings. The health professional sends only the completed Request and Report form directly to the referring railway organisation indicating your fitness or otherwise for duty. Where your employer utilises the services of a Chief Medical Officer (CMO), the CMO may request a copy of the examining health professional's report to aid in the management of your health in relation to your work. The CMO must maintain the confidentiality of the records and ensure they are not made available to, or discussed with any other person within the rail organisation Other than the above, no information will be disclosed to the employer or any other person or organisation without your written permission, except where:

- a notifiable disease is diagnosed which must, by law, be reported to the State authorities
- a report is subpoenaed by a court of law
- the Secretary to the Department of Infrastructure (or another person) is required to conduct an inquiry into a railway accident or incident.

You have the right to access your health records including those held by the authorised health professional and the CMO (if relevant) and the reports held by the rail organisation.

WORKER'S DECLARATION

I, _____ (Print Name)

certify that I have read and understood the above statement concerning the Health Information provided herein.

Signature: _____ Date: _____

PART A– Employer to complete**1. Worker/Applicant Details**

Family Name:	First Names:
Company:	
Location:	
Employee No:	Date of birth:

2. Rail Organisation Details

Supervisor/contact:		
Date of request:	Phone:	Facsimile:
Account and report to be sent to Supervisor at the following address (Please insert postal address or fax number):		

3. Health Assessment Appointment Details

Health professional:	
Address:	
Phone:	Facsimile:
Appointment Date:	Time:

4. Description of Worker's Duties (or attach Job Description or Task Risk Assessment)

5. Type of Assessment requested

- Pre-placement / Change of Risk Category Health Assessment
- Periodic Health Assessment
- Triggered Health Assessment (specify reason): _____
- Drug Screen / Review results
- Screen-Based Equipment Examination
- Other (specify): _____

6. Tests Ordered

- Drug Screen (Preemployment / Change of Grade only)**

Location (if differs from Health Assessment Appointment details):

- Audiometry**

Location (if differs from Health Assessment Appointment details):

Worker/Applicant Name:		
Employee No.	Date of birth:	Date of Request:

PART B – Health Professional to complete	
<input type="checkbox"/> I have sighted the worker's Rail Safety Worker Card Number _____ OR <input type="checkbox"/> I have sighted the worker's/applicant's photo ID (eg driver's licence, passport) Number _____	
I certify that I have examined the worker/applicant named in accordance with the medical standards contained in the <i>National Standard for Health Assessment of Rail Safety Workers, Volume 2: Assessment Procedures and Medical Criteria</i> and in my opinion the worker/applicant is (tick appropriate box):	
<input type="checkbox"/> Fit for Duty – Meets all relevant medical criteria.	<input type="checkbox"/> Local doctor referral <input type="checkbox"/> Conditional on corrective lenses <input type="checkbox"/> Conditional on hearing aid <input type="checkbox"/> Other condition (specify): _____ _____
<input type="checkbox"/> Fit for Duty Subject to Review – Does not meet all medical criteria, but could perform rail safety work if the condition is sufficiently under control and worker is more frequently reviewed than prescribed under periodic review.	I recommend: <input type="checkbox"/> Review at this practice DATE: _____ <input type="checkbox"/> Specialist referral <input type="checkbox"/> Local doctor referral <input type="checkbox"/> Company Medical Officer referral <input type="checkbox"/> Laboratory tests This certificate is valid until: _____
<input type="checkbox"/> Fit for Duty Subject to Job Modification – Does not meet all medical criteria, but could perform rail safety work if suitable modifications were made to the duties.	I recommend the following job modifications: _____ _____ _____
<input type="checkbox"/> Temporarily Unfit for Duty Subject to Review – Does not meet all medical criteria and cannot perform current rail safety tasks but may perform alternative non-safety tasks. May return to full duty pending improvement in condition, response to treatment, confirmed diagnosis of undifferentiated illness.	I recommend the following in terms of management and review: _____ _____ _____
<input type="checkbox"/> Permanently Unfit for Duty – Does not meet the medical criteria and cannot perform the job in the future.	I recommend the following in terms of management and review: _____ _____ _____

Drug Screen Results (Pre-placement only or Change of Grade/Risk Category only):
--

Health Professional Details (stamp acceptable)		
Name:	Phone:	Facsimile:
Practice address:		
Signature:	Date of Assessment:	

PART C – Employer to complete on receipt of Assessment Report
Action taken as a result of Health Assessment: <input type="checkbox"/> Job modification (details): _____ <input type="checkbox"/> Triggered review (indicate period): _____ <input type="checkbox"/> Periodic Health Assessment scheduled (details): _____ <input type="checkbox"/> Redeployment (details): _____ <input type="checkbox"/> Drug Assessment (details): _____

Part D – Worker to complete regarding portability of assessment result
I, _____ (Print Name) give permission for this health assessment to be forwarded to another rail organisation as confirmation of fitness for duty. Signature: _____ Date: ____/____/____ May 2004

2.2 Record for Health Professional

The Track Safety Health Assessment Record for Health Professionals is a tool to help guide authorised health professionals with the health assessment process.

It provides a standard format for recording the results of the health assessment which should then be filed in the worker's medical history.

The completed Health Assessment Record is not to be forwarded to the employer for reasons of privacy.

The health professional should summarise the result in terms of fitness for duty on the Request and Report Form (Form 2.1).

FOR PRIVACY REASONS THE COMPLETED FORM SHOULD BE RETAINED BY THE AUTHORISED HEALTH PROFESSIONAL AND NOT RETURNED TO THE RAIL ORGANISATION
(Other than the Chief Medical Officer if requested)

CONFIDENTIAL

Track Safety Health Assessment RECORD FOR HEALTH PROFESSIONAL (WHITE FORM)

PART A – Employer to complete

1. Worker/Applicant Details	
<i>Family Name:</i>	<i>First Names:</i>
<i>Company:</i>	
<i>Location:</i>	
<i>Employee No:</i>	<i>Date of birth:</i>

2. Rail Organisation Details		
<i>Supervisor/contact:</i>		
<i>Date of request:</i>	<i>Phone:</i>	<i>Facsimile:</i>

3. Health Assessment Appointment Details	
<i>Doctor/Practice:</i>	
<i>Address:</i>	
<i>Phone:</i>	<i>Facsimile:</i>
<i>Appointment Date:</i>	<i>Time:</i>

PART B – Examination Record – Health Professional to complete

1. Medical History (<i>tick appropriate box</i>)		No	Yes
1.1	Do you have any serious illnesses?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Do you have any difficulty of vision?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Do you have any difficulty of hearing?	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Do you have any difficulty walking?	<input type="checkbox"/>	<input type="checkbox"/>

2. Vision:			
2.1 Visual Acuity			
Uncorrected		Corrected	
R	L	R	L
6/	6/	6/	6/
Are contact lenses worn? No <input type="checkbox"/> Yes <input type="checkbox"/>			
2.2 Visual Fields (Confrontation to each eye):			
Normal <input type="checkbox"/>		Abnormal <input type="checkbox"/>	

3. Musculoskeletal / Neurological:

3.1 Cervical spine rotation
 Normal Abnormal

3.2 Back movement
 Normal Abnormal

3.3 Upper Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

3.4 Lower Limbs
 a) Appearance: Normal Abnormal
 b) Joint movements: Normal Abnormal

3.5 Gait Normal Abnormal

3.6 Romberg's Test (A pass requires the ability to maintain balance while standing with shoes off, feet together side by side, eyes closed and arms by sides, for thirty seconds):
 Normal Abnormal

4. Hearing (Audiometry results):

	0.5 kHz	1.0 kHz	2.0 kHz
Right			
Left			

5. Drug Screen (pre-placement or change of grade only):

Comment on any relevant findings detected in the Health Assessment, making reference to the requirements of the standard.

Patient Consent (if required to consult with GP or other treating doctor)

I, _____ print name

give do not give (please indicate) permission for the examining health professional to contact my treating doctor to discuss or clarify information relating to my current health status

Signature of worker/applicant: _____

Name of Doctor: _____

Phone: _____

IMPORTANT: For privacy reasons, the completed Health Assessment Record must not be returned to the employer. It should be retained in the patient record.

3. Task Risk Assessment

The Task Risk Assessment is a template form designed to guide the process of risk assessment of rail safety tasks and serve as a documentation of the conclusions of task assessment.

The completed form is recommended as an inclusion with the information provided to the examining health professional and it supports a clearer understanding of the tasks performed by the worker and the matching health requirements.

A detailed explanation of the processes involved in health risk assessment and completion of the Task Risk Assessment Template is included in the *Guideline for Health Risk Management*.

Rail Safety Worker Risk Assessment Template

RAIL SAFETY WORKER TASK:		
ASSESSMENT RECORD:		
WORKSITE INSPECTION	Date:	Completed by:
JOB DESCRIPTION	Date:	Reviewed by:
CONTEXT:		
ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail network:</i> <i>Health attributes relating to the safety of the rail worker (OHS):</i>	
ENGINEERING AND PROCEDURAL ENVIRONMENT:		
RISK ANALYSIS AND CATEGORISATION:	CATEGORY	
HEALTH ASSESSMENT REQUIREMENTS:		

Glossary of Terms

1. **Accredited Rail Organisation** means a rail organisation accredited as defined in the jurisdiction's relevant rail safety legislation as a Manager of Infrastructure and/or Provider of Rolling Stock and/or Operator of Rolling Stock.
2. **Authorised Health Professional** means a health professional typically with a qualification in medicine or in nursing with a post graduate qualification in occupational health nursing, who has been selected by accredited rail organisations, on the basis of their compliance with the specified selection criteria, to undertake rail safety worker health assessments.
3. **Around the Track Personnel (ATTP)** means persons required to work on a railway where any aspect of the task they are undertaking is "on or near the track" as defined in definition 14, that is within three (3) metres from the edge of the closest rail when measured horizontally and at any level above or below the rail when measured vertically, unless in a position of safety. ATTP excludes any rail safety worker who is classified as a Safety Critical Worker
4. **Civil Infrastructure** means track formation and drainage (but excluding track, refer definition 33), fixed structures beside, over or under the track, including supports for overhead electric traction equipment, supports for signalling and telecommunications equipment but excluding those equipments.
5. **Competence** means the possession of skills and knowledge and the application of them to the standards required in employment.
6. **Contractor** means a person who is engaged by or on behalf of any body that has been accredited under jurisdiction's relevant rail safety legislation to provide goods or services to such a body.
7. **Controlled Environment** means a rail workplace where a risk assessment has been performed to identify hazards and implement controls to ensure that any person working in or transiting the area is not placed at risk from moving trains.
8. **Electric Traction Infrastructure** means equipment and systems associated with the supply and reticulation of electricity for traction purposes, but excluding elements of civil infrastructure supporting or otherwise associated with the equipment or systems.
9. **Employer** means an accredited rail organisation that engages a rail safety worker, either as a paid worker or volunteer.
10. **Ensure** means to take all reasonable action insofar as controllable factors will allow.
11. **Interstate System** means any railway system, or part thereof, designated by its owner as a route to be used for the movement of interstate traffic.
12. **Mainline** means the line normally used for running trains through and between locations.
13. **May** indicates the existence of an option.
14. **On or near the track** means three (3) metres from the edge of the closest rail when measured horizontally and at any level above or below the rail when measured vertically, unless in a position of safety.
15. **Operator** means the person or body responsible by reason of ownership, control or management, for the provision, maintenance or operation of trains, or a combination of these; or a person or body acting on its behalf.
16. **Organisation** means an owner or an operator or a person or a body that is both owner and operator.
17. **Owner** means the person or body responsible by reason of ownership, control or management, for the construction and maintenance of track,

- civil and electric traction infrastructure or the construction, operation or maintenance of train control and communication systems, or a combination of these, or a person or body acting on its behalf.
- 18. Rail Network** means a system of railways whether interconnected or not.
- 19. Rail Safety Worker** is a worker undertaking rail safety work as defined in jurisdiction's relevant rail safety legislation and for this Standard includes an employee, contractor, subcontractor or volunteer performing work on a railway or tramway system:
- as a driver, second person, trainee driver, guard, conductor, supervisor, observer or authorised officer
 - as a signal operator, shunter or person who performs other work relating to the movement of trains or trams
 - in repairs, maintenance, or upgrade of railway infrastructure, including for rolling stock or associated works or equipment
 - in construction or as a look out for construction or maintenance
 - any other work that may be included by regulation.
- 20. Railway** means a guided system designed for the movement of rolling stock which has the capability of transporting passengers, freight or both on a track together with its infrastructure and associated sidings. This includes a heavy railway, a light railway, an inclined railway or a tramway, having a nominal gauge in each case not less than 600mm, but excludes crane type runways and slipways.
- 21. Risk** means the combination of the frequency or probability of occurrence and the consequences of a specified hazardous event.
- 22. Risk Analysis** means a systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
- 23. Risk Assessment** means the overall process of risk analysis and risk evaluation.
- 24. Risk Control** means the process of decision making which involves the implementation of physical changes, standards, policies and/or procedures for eliminating, reducing and/or managing risk.
- 25. Risk Management** means the systematic application of management policies, procedures and practices to the tasks of analysing, evaluating and controlling risk.
- 26. Rolling Stock** means any vehicle that operates on or uses a railway track, excluding a vehicle designed for both on- and off-track use when not operating on the track.
- 27. Running Line** means any line used for the through operation of trains inclusive of mainlines, branch lines, crossing loops and shunting yards.
- 28. Safety Critical Worker** means a worker whose action or inaction, due to ill-health, may lead directly to a serious incident affecting the rail network.
- 29. Serious Incident** for the purposes of this Standards means an accident or incident that affects the public or the network resulting in:
- the death of a person
 - incapacitating injury to a person
 - a collision or derailment involving rolling stock that results in significant damage
 - any other occurrence which results in significant property damage.
- 30. Shall** is to be understood as mandatory.
- 31. Should** is to be understood as non-mandatory, that is, advisory or recommended.
- 32. Signalling and Telecommunications Infrastructure** means signalling equipment and telecommunication equipment provided and used as part of the safe working and operating systems of the railway but excluding supports for such equipment.
- 33. Track** means the combination of rails, rail connectors, sleepers, ballast, points and crossing and substitute devices where used.

34. **Train** means one unit of rolling stock or two or more units coupled, at least one of which is a locomotive or other self-propelled unit.
35. **Tram** means a vehicle which runs on rails on a highway, road or easement specifically designated for use by a tram or light rail vehicle and includes a light rail vehicle.
36. **Worker** means a rail safety worker as defined in Definition 19.

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Vol 2: Assessment Procedures and Medical Criteria, May 2004

COMMENTS AND/OR INQUIRIES

The National Transport Commission invites comments on and/or and inquires about the Assessment Procedures and Medical Criteria (Volume 2 of the National Standard for Health Assessment of Rail Safety Workers)

Comments from health professionals are especially welcome and may address any of the relevant matters, especially the accessibility and usefulness of the procedures and criteria.

National Transport Commission
Level 15/628 Bourke Street
MELBOURNE VIC 3000

Email: ntc@ntc.gov.au

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The Project Team responsible for researching and developing the draft National Standard was:

Jan Powning	National Project Manager and Manager Safety Policy and Planning, DOI Victoria
Dr Bruce Hocking	FAFOM. FAFPHM. FRACGP. Occupational Physician
Fiona Landgren	Principal Consultant, Communicating for Health
Keith Wheatley	Project Manager, NTC

The NTC also acknowledges the assistance provided to the Project Team by:

Dr Keith Adam	Occupational Physician and Chief Medical Advisor, Queensland Rail
Bruce Anderson	Safety and Quality Manager, Works Infrastructure
Rob Blackwell	Systems Manager, Works Infrastructure (EDI)
Graeme Breydon	Chairman, Puffing Billy Railway
Rob Burrows	Director, Office of Rail Safety, Department of Planning and Infrastructure
Brian Busch	Manager Safety, Australian Rail Track Corporation
Alex Claassens	Assistant National Secretary, Rail Tram and Bus Union (Locomotive Division)
Dr Michael Couch	Occupational Physician, NSW
Kent Donaldson	Executive Director Transport Safety and Rail Safety Regulation, Ministry of Transport NSW
Dr Tim Drew	Chief Medical Consultant to TransAdelaide
David Edwards	Executive Manager Safety, Pacific National
Greg Ford	Director Rail Safety, Queensland Transport
Dr John Glastonbury	Executive Member, Heritage Rail Australia (NSW) and Chairman 3801 Limited
Allan Gordon	Superintendent Safeworking and Training, Pilbara Rail
Ian Grenfell	President, Tasmanian Association of Tourist Railways
Catherine Herriman	Assistant Director Safety Strategy, Ministry of Transport
Bryan Homann	Council of Historic Railways and Tramways South Australia and Pichi Richi Railway
Caroline Hudson	National Manager Human Resources, Australian Railroad Group
Andrew Killingworth	Rail Transport Museum, (Tourist and Heritage Rail) NSW
Dr Andrew Marsden	Chief Medical Consultant to Westrail
Marnie O'Brien	Manager Injury Management Centre, Rail Infrastructure Corporation
Dr Graeme Peel	Occupational Physician, QANTAS
Adrian Ponton	Manager System Safety, Freight Australia
Philippa Rogers	Secretary, Association of Rail Preservation Groups of WA Inc
Dr Paul Rollason	President, Association of Tourist Railways Queensland
John Shalders	Code of Practice Manager, Australasian Rail Association
Graeme Silvester	Manager Safety Systems and Accreditation, Queensland Rail
Dr Tim Stewart	Medical Advisor to TasRail
Craig Tooke	Executive Officer, Council of Tramway Museums Australasia
Dr Stuart Turnbull	Medical Practitioner Occupational Medicine, Bayside Trains

NATIONAL STANDARD FOR HEALTH ASSESSMENT OF RAIL SAFETY WORKERS

VOLUME 3: GUIDELINE FOR HEALTH RISK MANAGEMENT

May 2004

**Prepared by
National Transport Commission**

National Transport Commission

**National Standard for Health Assessment of Rail Safety Workers
Guideline for Health Risk Management**

Report prepared by:
National Transport Commission

ii National Health Assessment Standard for Rail Safety Workers - Guideline for Health Risk Management, May 2004

FOREWORD

This draft *Guideline for Health Risk Management* accompanies the draft *National Standard for Health Assessment for Rail Safety Workers*. It is not formally part of the Standard, but supports the draft Standard by providing practical guidance for rail organisations to assess the risks and health attributes associated with rail safety tasks and activities and to assign a risk category so that the appropriate level of health assessment can be performed.

The draft National Standard and Guideline have been developed under the auspices of the National Transport Commission (NTC) as part of the Work Program approved by the Australian Transport Council. Recognising the extent of work already undertaken within Victoria on health standards for rail workers, the Victorian Department of Infrastructure has acted as the lead agency in the development of the national standard.

A nationally agreed and consistently applied Health Assessment Standard will ensure uniformly high safety standards apply across the whole industry. This will contribute to seamless rail operations allowing rail organisations to operate more efficiently within and across State and Territory boundaries. The National Standard will also benefit rail safety workers by providing for equity and portability of medical certification.

The draft Standard adopts a risk management approach and reflects contemporary medical knowledge as well as changes in societal values. It is the result of extensive research and input from a very wide range of industry stakeholders. The draft Standard consists of two volumes:

Volume 1 - Management Systems

Volume 1 is intended for use by rail organisations. It outlines the responsibilities of all parties and describes the management systems for health risk management including scheduling, communication, records management and the appointment of authorised health professionals. It contains provisions for a risk management approach to monitoring rail safety worker health and fitness, including a framework for analysing and categorising risks associated with rail safety tasks and assigning levels of health assessments accordingly.

Volume 2 – Health Assessment Procedures & Medical Criteria

Volume 2 is designed for use by authorised health professionals. It outlines the procedures for conducting health assessments and provides the screening tools and medical criteria for judging fitness for rail safety duty.

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PART 1 – GUIDELINE FOR HEALTH RISK MANAGEMENT

1. Introduction

An accredited rail organisation must establish systems and procedures to ensure rail safety workers receive the appropriate level of health assessment as outlined in this part of the Standard.

The systems and procedures should be based on a risk management approach so that the level and frequency of rail safety worker health assessments correspond with the risks associated with the tasks they perform.

1.1 Purpose and use of the Guideline

An accredited rail organisation should perform its own risk assessments of rail safety work in its own operating environment and apply health assessments accordingly.

This *Guideline for Health Risk Management* provides a methodology for:

- performing risk assessments of rail safety tasks;
- assigning risk categories for health assessment purposes; and
- identifying any specific health requirements relevant to rail safety tasks.

The Guideline includes:

- an overview of the risk categories and matched health assessment provisions contained in Volume 1 of the Standard;
- a step-by-step guide to the risk assessment of rail safety tasks and the health attributes needed for the tasks;
- guidance for identifying health assessment requirements for specific tasks, such as colour vision;
- a Risk Analysis Template for use within the rail organisation; and
- worked examples of risk assessments for a sample of rail safety tasks.

A rail organisation should not assume that the risk assessment and risk categories provided in the examples in this guideline

automatically apply to the operating and environmental circumstances of their own organisation.

The examples should be used as a guide to the processes involved and should not substitute for the conduct of risk assessments within the rail organisation.

1.2 References and Resources

Principles for risk management in the rail industry are described in Australian Standard, AS4360 *Risk Management* and AS4292 1995, *Railway Safety Management*. This Guideline provides further explanation for applying the principles to Health Risk Management.

Each rail organisation should also refer to its own *Risk Management Strategy* which is required for accreditation under the relevant legislation.

All rail safety work may also have specific occupational health and safety risks associated with it, for example, noise or manual handling. These are outside the scope of this document and should be managed as required by relevant occupational health and safety regulations.

2. Health Risk Management for Rail Safety Work

A risk management approach forms the basis for all health assessment decisions to ensure the type of health assessment matches the risks associated with different rail safety work.

The aim of the health risk management process is to:

- identify what could go wrong in the case of physical or psychological ill health;
- assess the consequences; and
- establish appropriate controls for the risks associated with ill health.

The health risk management process focuses on a consideration of the extent to which the worker's physical and/or psychological health could contribute to a

serious incident involving the public on the rail network that may result in:

- the death of a person;
- incapacitating injury to a person;
- a collision or derailment involving rolling stock that results in significant damage; or
- any other occurrence which results in significant property damage.

A further consideration is the extent to which the worker's health affects their own safety and that of fellow rail safety workers.

Health assessments are one approach to treating the risk of serious incidents and the risk to individual safety, thus a mix of engineering, administrative and health assessment measures is likely to be required.

Therefore, in determining the health assessment requirements of rail safety workers it is important to take into account the operational and engineering environment, since overall risk management significantly determines the human attributes that are required for safety.

To give an example, the operation of an historical steam engine requires two persons in the cab who scan the track and operate controls. If one becomes ill the other may brake the train.

By contrast a modern locomotive usually has a single driver who may read data from a flat screen as well as scanning the track, who operates a vigilance system and other controls, and who is likely to have his progress closely controlled from a central point.

As a result of these differences in engineering and operational requirements there are very different demands on the drivers. In these two situations the health requirements will vary substantially.

This interaction between technology and human capabilities has implications not only for the setting and application of health standards, but also for meeting diverse legal requirements. Health assessment standards cannot be simply

set at the highest level for *safety's sake*. They must be set and applied carefully to match the risks associated with the tasks to be consistent with anti-discrimination and privacy laws.

3. Risk Categorisation and Matched Health Assessments

The requirements for a health risk management approach are detailed in the *National Standard for Health Assessment of Rail Safety Workers, Volume 1: Management Systems*.

The health risk management approach is based on categories of risk which help to define broad physical and psychological health attributes needed for particular rail safety tasks. The approach also helps with identification and monitoring of task-specific requirements such as levels of colour vision.

The health assessment system is based on a risk analysis of rail safety work and categorisation of risk which is based on considering the key question:

For any aspect of the tasks identified, could ill health lead directly to a serious incident affecting the public or the rail network?

This process is illustrated in Diagram 1.

Two main risk categories are defined:

- Safety Critical Work
- Non-Safety Critical Work

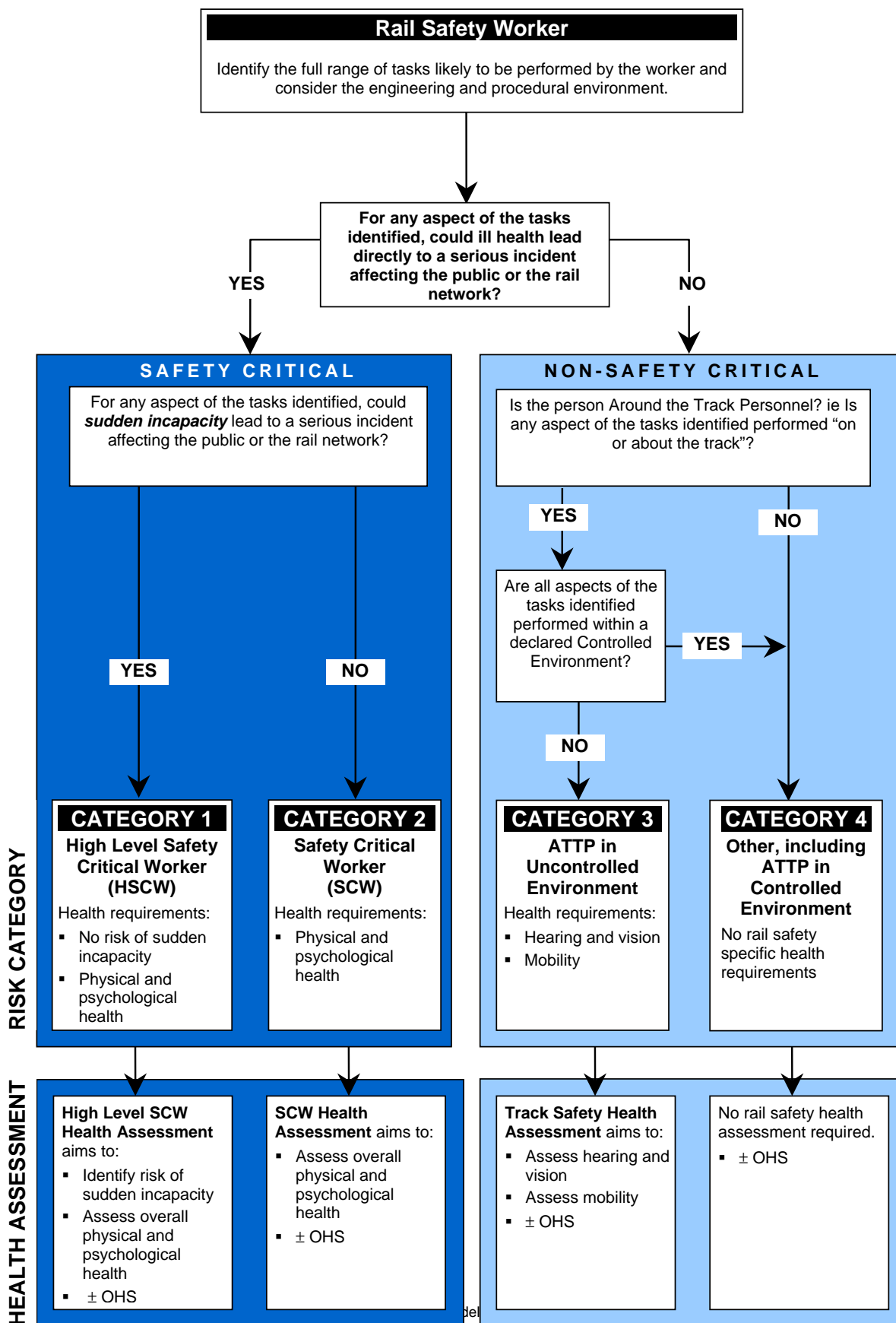
These two main categories are further divided resulting in four risk categories overall.

Safety Critical Workers

Safety Critical Workers are those whose action or inaction, due to ill health, may lead directly to a serious incident affecting the public or the rail network. The worker's physical and psychological fitness to carry out their job is crucial. There are two risk categories for Safety Critical Work:

- High Level Safety Critical Work (Category 1)
- Safety Critical Work (Category 2).

Diagram 1: Definition of Health Risk Categories for Rail Safety Work



Rail safety tasks are High Level Safety Critical if sudden worker incapacity such as a heart attack or blackout could result in a serious incident affecting the safety of the public or rail network. Single operator train driving on the commercial network is an example of a High Level Safety Critical task (Category 1).

Safety Critical tasks which are not High Level include those where fail-safe mechanisms ensure sudden incapacity does not affect safety of the rail network. For example, in many cases a signalling task is Safety Critical (Category 2) but not High Level Safety Critical because fail-safe systems ensure the safety of the network in case of worker incapacity.

To ensure sound physical and psychological health, the health assessments for Safety Critical Workers (Category 1 and 2) requires a comprehensive physical and psychological assessment. This involves a clinical examination and completion of a detailed questionnaire.

The assessments aim to detect conditions that may affect safeworking including heart disease, diabetes, epilepsy, sleep disorders, alcohol and drug dependence, psychiatric disorders and eye and ear problems.

High Level Safety Critical Workers (Category 1) are required to undergo additional assessment for their risk of sudden incapacity. This involves a Cardiac Risk Assessment which is a screening tool to determine their risk of a cardiovascular event.

Non-Safety Critical Workers

The health and fitness of Safety Critical Workers is of primary concern. However, it is important to monitor the health and fitness of Non-Safety Critical Workers to ensure they do not put at risk their own safety and that of fellow workers.

If Non-Safety Critical Workers perform tasks that require them to operate on or about the track they are termed Around The Track Personnel (ATTP).

There are two ATTP risk categories based on the potential exposure to moving rolling stock:

- ATTP working in an Uncontrolled Environment (Category 3)
- ATTP working in a Controlled Environment (Category 4).

A Controlled Environment is defined in the *National Health Assessment Standard for Rail Safety Workers* as a rail workplace such as a siding, rail yard or workshop environment where a risk assessment has been performed to identify hazards and where controls are implemented to ensure that any person working in or transiting the area is not placed at risk from moving trains.

When analysing the risk to ATTP and classifying the tasks into Categories 3 or 4, the features of a "controlled environment" need to be carefully considered regarding their adequacy.

Where ATTP cannot be protected by a Controlled Environment they must have the ability to sense an oncoming train and move quickly out of the way. They are therefore required to have health assessments commensurate with these risks, including hearing, vision and mobility.

Note: workers directly working on the track should be regarded as functionally deaf and blind and require appropriate protection.

Workers in a Controlled Environment do not rely on their vision, hearing and mobility to protect them from risk and do not require a rail safety health assessment, but they may require some form of assessment to meet OHS requirements of the job.

Where workers may move between Controlled and Uncontrolled Environments the higher level of risk assessment should be applied.

The worked examples in Part 2 of the Guideline illustrate the application of the risk categories for Around the Track Personnel.

The risk categories and matching health assessment requirements are summarised in Table 1.

Table 1. Summary of Health Assessments for Risk Categories

Risk Category	Health Assessment Required
Category 1 High Level Safety Critical Worker	Safety Critical Worker Health Assessment including: <ul style="list-style-type: none"> • Safety Critical Worker Health Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-Based Equipment (SBE) examination if required Plus <ul style="list-style-type: none"> • Cardiac Risk Score
Category 2 Safety Critical Worker	Safety Critical Worker Health Assessment including: <ul style="list-style-type: none"> • Safety Critical Worker Health Questionnaire and history • Comprehensive physical and psychological assessment • Vision and hearing • Screen-Based Equipment (SBE) examination if required
Category 3 Around the Track Personnel (Uncontrolled Environment)	Track Safety Health Assessment including: <ul style="list-style-type: none"> • Vision • Hearing • Mobility
Category 4 Other than those in Categories 1-3 including Around the Track Personnel in Controlled Environment	No prescribed health assessment

4. Steps for Health Risk Management

4.1 Preparatory Considerations

This section provides a step-by-step guide to performing a risk assessment of rail safety work and identifying health assessment requirements. The steps are summarised in Diagram 2.

Worked examples of these steps applied to a sample of rail safety tasks are also provided (refer Part 2).

The worked examples are not generic. The risk categorisation included in each example should not be assumed to apply to generally to all such tasks. An accredited rail organisation must perform its own risk analysis of rail safety tasks relevant to its own operating and engineering environment.

A template to guide collection and documentation of relevant data about the task risk analysis, health attributes and risk categorisation is also provided.

The rail organisation should ensure that the process and rationale for the health assessment requirements of its rail safety workers is transparent. The completed template would comprise appropriate documentation about the risk management processes for audit purposes.

A completed template about the risks and health attributes needed for rail safety tasks would also be informative for the authorised health professional conducting the health assessments.

An effective risk management process will involve communication between the responsible manager and the workers who perform the tasks.

The process should also draw on appropriate expertise. Involvement of the authorised health professional at the risk analysis stage will help with identifying necessary health attributes for a task. In turn, the health professional is likely to develop a sound understanding of the work and associated risks.

When completing a risk assessment it is important to state clearly the reasons why

a task was so categorised. This may have legal significance in the future. The name of the person who made the assessment should be recorded.

The rail organisation should establish a procedure to ensure that the health risk management process and effectiveness of risk control strategies are kept under review.

As a minimum, review should occur whenever there are changes to work practices or engineering controls.

4.2 Risk Management Steps

Step 1: Context

The first step is to establish and describe the context in which the health risk management process will be performed. This includes relevant legislative requirements, organisation policies and procedures and the business and operational environment.

Legislation

The relevant legislation forms a foundation for general risk management for rail safety work. It also determines the definition of rail safety worker and thus the scope of an organisation's health risk management process. Because rail safety legislation varies between state or territory jurisdictions, rail organisations may need to apply different definitions of rail safety work when assessing the health requirements of their workers to meet different accreditation requirements (or work to the highest standard).

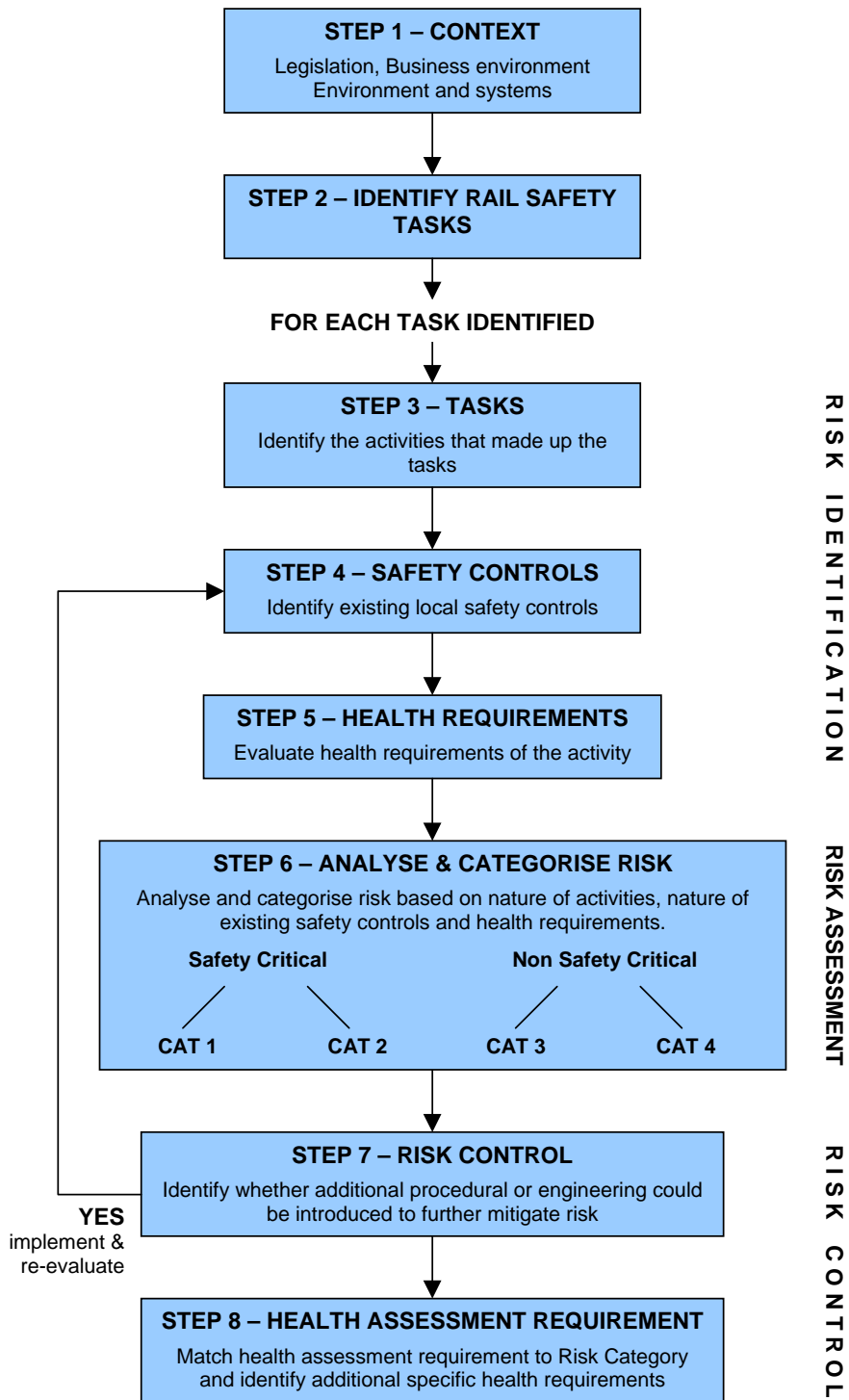
Business Environment

Identification of the business environment in which the organisation operates also helps to establish the risk management framework.

For example:

- Urban passenger train operations
- Freight operations, including dangerous goods
- Infrastructure maintenance or construction
- Light rail or tram operations
- Tourist and heritage train or tram operations.

Diagram 2: Steps in Health Risk Management Process



Policies and Procedures

The health risk management process should be consistent within the general risk management framework of the rail organisation. The organisation's policies and goals for rail safety should be considered to help define the criteria for deciding whether a risk is acceptable or not, and to determine the appropriate mix of engineering, administrative and medical control measures for treating risk.

Operational Environment and Systems

The broad operational systems which support the management of risk in the organisation are also an important contextual consideration. Considerations may include:

- the type of safe-working systems - for example, block signalling or staff-and-ticket;
- train protection systems, for example, train stops or automatic train protection;
- the maximum speed of operation.

Step 2: Identify Rail Safety Tasks

After defining the broad context of health risk management the next step is to identify and document all rail safety tasks performed within the organisation.

These tasks will be the focus of the health risk management process that will seek to:

- **identify** what could go wrong in the case of ill health;
- **assess** the consequences; and
- establish appropriate **controls** for the risks associated with ill health.

For example, the following provides a list of typical tasks that may comprise rail safety work in a rail organisation.

Rail Safety Worker Tasks - Examples

Train Driving

- Operation of passenger train on an urban network
- Operation of freight train on a non-urban network

Operation of signalling equipment

Train Controlling

Infrastructure Maintenance

- Driving of road/rail vehicle
- Track machine operation
- Safe working protection party duties
- Electrical systems maintenance

Rolling Stock Maintenance

- Maintenance in workshop or depot
- Train examination

The initial focus of the analysis should be on tasks, not on formal job classifications or grades. This is because workers are often required to be multi-skilled and perform various tasks within one job. Once tasks have been analysed, the analysis may then be applied to multiskilled positions, with the highest risk task determining the level of health assessment required.

For the purposes of this guideline

- a **job** is the aggregation of tasks that go to make a (multiskilled) position eg. driver;
- **tasks** are the work required to be done eg. driving an urban train, driving a non-urban train; and
- **activities** are the units of work done in carrying out the task eg scanning the track, moving controls, etc. when driving.

Step 3: Analyse Tasks

After identifying all rail safety tasks, each task should be examined to establish the specific activities that make up that task. This may involve:

- a review of relevant job descriptions;

- on-site visits to discuss tasks with rail safety workers and observe the activities that comprise the tasks as well as the conditions under which the activities are performed;
- identifying activities performed infrequently in response to an emergency situation.

This step should also identify working conditions associated with the task, as these may also be relevant to the health requirements, for example:

- shift work;
- working in extremes of heat and cold; or
- terrain etc.

The worked examples in Part 2 of this Guideline illustrate how the activities relevant to each task are identified and documented in the *Activities and Conditions* section of the Risk Assessment Template.

Step 4: Identify Local Safety Controls

The nature of the operational and engineering environment will in part determine the human attributes that are required for safety. This includes the operational and/or engineering controls which are intended to mitigate the risk associated with the task.

The next step therefore is to identify and assess the impact of the local safety controls on the rail safety task being analysed. For example:

- safe working rules;
- lock-out procedures;
- fail-safe systems;
- numbers of personnel in the working environment;
- deadman's devices; and
- vigilance devices.

Controlled Environment

The determination of a Non-Safety Critical Worker, ATTP Category 4 depends on whether the work is performed in a Controlled Environment.

When analysing the risk to ATTP the features of a "Controlled Environment"

need to be identified and their adequacy carefully considered. The essential requirement of a Controlled Environment is that it must protect workers from moving rolling stock.

In rail workplaces such as sidings, rail yards or workshops controls may include:

- provision of lock out and/or warning devices;
- barrier segregation from running lines; or
- permit to work.

These may be supplemented as identified by risk assessment by:

- warning signage;
- special instructions;
- use of designated pathways and/or access/transit routes; and/or
- supervision.

For special works, a running line may also be assessed as a Controlled Environment in certain circumstances, for example in the case of:

- complete possession of all sections of track in the vicinity, including parallel lines;
- "Non-train day" on isolated historical railways with no active parallel running lines.

In all instances consideration needs to be given to rolling stock and track machinery movements associated with the works.

The worked examples in Part 2 of this Guideline illustrate how the local safety controls relevant to each task are identified and documented in the *Engineering and Procedural Controls* section of the Risk Assessment Template.

Step 5: Evaluate Health Requirements

Once all activities comprising a task and the relevant working conditions and local controls are identified, the next step is to perform an evaluation to identify the health attributes necessary to perform the activity.

Health attributes should be clearly identified so that the impact of loss of

these functions can be assessed in the next risk analysis step.

Examples of this evaluation process may include:

- scanning the track *requires* visual acuity;
- use of Screen Based Equipment *requires* eyesight adequate for work at 40-70cm;
- detection of colour signals *requires* normal colour vision (Diagram 3 illustrates the evaluation process that might be applied for colour vision);
- use of radio-communications against noise in a cab *requires* adequate hearing;
- ability to continually monitor track or inspect rolling stock *requires* alertness and vigilance (A distinction in attributes may be made between the constant vigilance required in a prolonged monitoring situation to detect an uncommon 'signal' such as when driving or conducting preventive maintenance of rolling stock, and the normal attention to detail required for any job such as work by a competent skilled tradesman);
- ability to move onto or off rolling stock *requires* mobility (soundness of arms, legs and back).

The worked examples in Part 2 of this Guideline illustrate how the *Health Attributes* relevant to each task are identified and documented in the Risk Assessment Template.

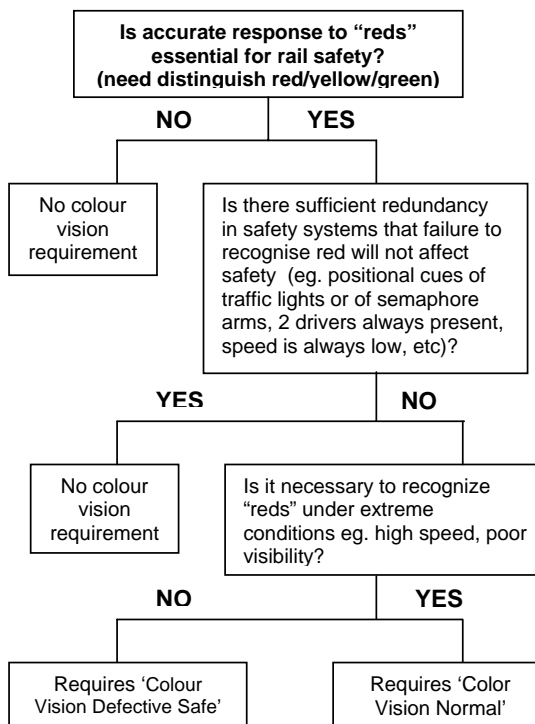
Step 6: Risk Analysis and Identification of Risk Category

The previous steps provide the necessary inputs to perform an analysis of the health risks of each task, ie. the nature of the activities, the local safety controls and the health attributes required to perform the tasks. A combined consideration of all these factors enables the consequences of ill health to be identified and assessed. A category of risk can then be applied.

Diagram 3: Evaluation Process for Colour Vision¹

There are two main groups of jobs requiring colour vision; external work and work involving multicolour screen based equipment.

1. External/Outdoor Rail Safety Work)



2. Screen based equipment

Work on screen-based equipment with multicolours requires minimal 'CV Defective Safe B'¹

¹ CIE Technical Report: recommendations for colour vision requirements for transport. CIE 143-2001

It is important in the risk analysis to differentiate between risks posed by ill health as distinct from lack of competency, which should be addressed through other control measures such as training and initial worker selection.

This risk analysis is best conducted in conjunction with persons knowledgeable about the tasks in question and the existing control measures.

Categorising Safety Critical Work

The first consideration in the analysis is whether the task is Safety Critical or not.

This is identified by applying the test:

For any aspect of the tasks identified, could physical or psychological ill-health lead directly to a serious incident on the rail network?

This question is posed in the context of existing control measures such as vigilance systems, fail-safe mechanisms etc (as per Step 4).

The test implies that physical conditions such as an amputated leg, diabetes or cardio-vascular disease should be considered as well as causes of substantial cognitive impairment such as psychiatric or sleep disorders. Tasks that could be affected by such ill-health are classed as "Safety Critical" tasks and these tasks are said to be performed by "Safety Critical Workers" (SCW); the remaining tasks are categorised as Non-Safety Critical.

Safety Critical tasks are subdivided by applying a further test:

*For any aspect of the tasks identified could **sudden incapacity** lead to a serious incident on the rail network?*

Again this question is posed in the context of existing control measures and with a consideration of the likelihood of a serious incident resulting from worker incapacity.

The test leads to a subdivision of Safety Critical tasks into "High Level Safety Critical Workers" and "Safety Critical Workers" as described earlier in the Guideline.

For example: Road-Rail Vehicle driver. *A road - rail vehicle has a sole driver, travels at up to 80km/hr and has a vigilance control but requires the driver to stop at level crossings. The task is considered Safety Critical because the driver's continued vigilance is necessary to ensure appropriate control of the vehicle to ensure the safety of the rail network. In the event of sudden incapacity (eg a heart*

attack) just prior to a level crossing, the vehicle may enter the crossing before stopping. However the likelihood of collapse occurring in the few hundred metres before a crossing is remote and therefore the risk is analysed as low (SCW Category 2). This contrasts with the driver of a track tamper machine with a settable throttle and without vigilance control where collapse of a sole operator could lead to a large machine progressing out of control and therefore the risk is analysed as high (Category 1).

Categorising Non-Safety Critical Work

Non-Safety Critical work is assessed in a similar way, resulting in allocation to Category 3 or 4 based on a consideration of the health requirements for maintaining safety of the worker and fellow rail safety workers, and the adequacy of measures to create a Controlled Environment.

When analysing the risk to ATTP and classifying the tasks into categories 3 or 4, the method and adequacy of a Controlled Environment need to be carefully considered regarding their adequacy.

When completing a risk assessment it is important to state clearly the reasons why a task was so categorised. This may have legal significance in the future. The name of the person who made the assessment should be stated.

The examples in Part 2 of this Guideline illustrate how the conclusions of the risk analysis and the task categorisation are documented in the *Risk Analysis and Categorisation* section of the Risk Assessment Template.

Step 7: Risk Control

The health risk categorisation performed in Step 6 is the basis of referral to a matched health assessment. However an important interim step is to consider the other treatment options that might be introduced to mitigate the risk, such as additional administrative or engineering controls.

Table 2 summarises the familiar hierarchy of control measures that may be applied to control safety risks.

Both elimination and substitution control the hazard itself. They are, therefore, more effective in reducing risk than controls which reduce the likelihood of the hazard, such as procedures. A limitation with lower level controls such as procedures is that they can be more easily defeated. However redundancy is helpful in safety and the optimal treatment of risk may involve a mix of engineering, administrative and medical risk control measures.

If practicable, engineering or administrative controls are generally preferred to health assessments as they provide more definitive protection. Such improvements should be implemented where possible and the task re-evaluated in terms of the health risk.

Table 2: Summary of Hierarchy of Control Measures

Elimination	Permanent solution and should be attempted in the first instance
Substitution	Replace hazard or environmental aspects by one of lower risk
Engineering controls	Includes physical barriers or structural changes
Administrative controls	Alter procedures / provide instructions/ medical exams
Personal Protective Equipment	Temporary control

For example, an outer flagman protecting a work site needs to lay detonators after each train passes. However if the flagman collapses the detonators will not be set and a train will enter a work site at high speed and may strike heavy machinery (and workers) causing a serious incident. One approach is to require high level health assessments for the flagman to lessen risk of collapse, but another is to alter the Track Working Rules

and provide the flagman with a radio to contact the site controller after they have laid detonators so the site controller can then open the site. This would be a safer work practice and change the categorisation of the job (to Category 2) and examination required.

Step 8: Identify Health Assessment Requirements

After determining the final risk categories of rail safety worker tasks, the health assessments are matched to the categories, ie Category 1 are required to have a High Level Safety Critical Worker Assessment; Category 2 are required to have a Safety Critical Worker Assessment and Category 3 are required to have a Track Safety Health Assessment.

The examples in Part 2 of this Guideline illustrate how the health assessment requirements are documented in the *Specific Health Assessment Requirements* section of the Risk Analysis Template.

In addition to these general requirements, workers may have specific assessment requirements depending on the nature of their tasks. These will have been identified in Step 5. For example:

Colour Vision

Specific criteria for colour vision are not described in the requirements for the general categories of assessment.

Depending on the result of the task identification for colour vision in Step 5 (above) a specific colour vision test may be required. For example, a solo train driver will require Normal Colour Vision in order to detect red/green in a variety of signal presentations and at high speed. A shunter on the other hand may require Colour Defective Safe vision, as there is not a requirement to interpret signals at speed.

Screen-Based Equipment

The evaluation of health requirements may also point to the need for a specific vision test for Screen-Based Equipment.

For example a Train Controller required to interpret colours on a screen.

Musculoskeletal requirements.

The standard health assessment for both Category 1 and 2 Safety Critical Workers requires soundness of arms, legs and back, and balance (Romberg Test). This should cover most situations in rail workers but the health assessment may be varied depending on the result of the task evaluation and on expert medical advice. For example a controller may not need use of legs, whereas a rolling stock maintainer requires considerable agility to move and inspect trains.

Occupational Health & Safety

Workers may also be required to have appropriate OHS examinations for specific hazards such as noise, asbestos or hazardous substances.

Rail Safety Worker Risk Assessment Template

RAIL SAFETY WORKER TASK:		
<i>State task under review eg driving on the commercial rail network, infrastructure maintenance</i>		
ASSESSMENT RECORD:		
WORKSITE INSPECTION	Date	Completed by:
JOB DESCRIPTION	Date	Reviewed by:
CONTEXT:		
<i>Briefly state the nature of the business and operating environment eg Commercial rail operation in suburban location; maximum speeds, signal system, etc</i>		
ACTIVITIES AND WORKING CONDITIONS	HEALTH ATTRIBUTES:	
<i>Describe the activities that make up the task and the working conditions under which the worker may need to operate eg, constant vigilance to detect and respond to coloured signals in a variety of changing conditions; and scanning the track ahead for unexpected events and responding accordingly etc.</i>	<p>Health attributes relating to the safety of the rail network:</p> <p><i>State the health requirements to fulfill the various activities eg. colour vision , sound legs, back and arms, sound general physical and psychological health so as to maintain vigilance.</i></p> <p>Health attributes relating to the safety of the rail worker (OHS):</p>	
ENGINEERING AND PROCEDURAL ENVIRONMENT:		
<i>Describe local safety procedures eg radio communications, safe working rules, fail-safe systems etc.</i>		
RISK ANALYSIS & CATEGORISATION:	CATEGORY	
<p><i>State the categorisation of the task and give reasons.</i></p> <p><i>Eg Train driving on the urban network is Safety Critical at a High Level (Category 1) because:</i></p> <ul style="list-style-type: none"> • <i>Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network;</i> • <i>Sudden incapacity could also result in a serious incident on the rail network;</i> • <i>Despite the high level of engineering protection on the urban network, the high traffic density and greater passenger load on urban trains, means that the highest risk category is applied.</i> 		
HEALTH ASSESMENT REQUIREMENTS:		
<p><i>State the type of medical examination recommended</i></p> <p><i>Eg ,for solo locomotive driver:</i></p> <ul style="list-style-type: none"> • <i>High Level Safety Critical Worker Health Assessment;</i> • <i>Colour vision normal (plus SBE eye examination in certain cabs).</i> 		

PART 2 – EXAMPLES OF RISK ASSESSMENTS FOR RAIL SAFETY TASKS

This section provides worked examples of the Health Risk Management process applied to a sample of rail safety tasks within the rail network.

The worked examples are not generic with prescriptive risk categories applied. They are specific examples taken from particular organisations and provided to illustrate the risk assessment methodology provided in this Guideline.

Note that only a representative sample of tasks is included and not all rail safety worker tasks are covered.

Rail organisations may find the examples are a useful a guide but they should perform their own risk assessment process and if referring to the examples, validate them in their own operating and engineering environment.

Following is a list of the tasks presented in the examples:

1 Commercial Rail Operations

1.1 Driving

- 1.1.1 Urban passenger on the commercial network
- 1.1.2 Non urban driving

1.2 Signalling and Controlling

- 1.2.1 Operation of signalling equipment
- 1.2.2 Train controlling

1.3 Shunting duties

1.4 Guard duties

1.5 Infrastructure Maintenance

- 1.5.1 Road/rail vehicle driving
- 1.5.2 Track machine operation
- 1.5.3 Flagman duties
- 1.5.4 Lookout duties
- 1.5.5 Other track maintenance
- 1.5.6 Electrical systems maintenance

1.6 Rolling Stock Maintenance

- 1.6.1 Train maintenance
- 1.6.2 Train examination
- 1.6.3 Freight yard work

1.7 Freight Work

2 Commercial Tram Operations

2.1 Tram Driving – Suburban

2.2 Tram Controlling

2.3 Tram Maintenance

2.4 Tram Infrastructure

3 Tourist/Heritage Train Operations

3.1 Driving of tourist trains

- 3.1.1 Driving on a dedicated line
- 3.1.2 Driving on a commercial main line

3.2 Driving of section cars

3.3 Train supervisor

3.4 Track Labourer

4 Historical Tram Operations

4.1 Driving of historical trams

1. EXAMPLES FROM COMMERCIAL RAIL NETWORK OPERATIONS

1.1 Example: Train Driving

1.1.1 Example: Passenger Train Driving on the Urban Network

TASK: PASSENGER TRAIN DRIVING ON THE URBAN NETWORK	
<p>CONTEXT:</p> <p>The organisation provides passenger transport services across Australia including buses, trams, trains and a monorail. It employs over 1,400 people nationally. The Melbourne urban rail operation involves 74 trains operating over 129 kilometres of network. More than 1,000,000 passengers a week utilise over 5,100 weekly services.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>The train driver's job involves a variety of activities that include:</p> <ul style="list-style-type: none"> • Continuous skilled driving to meet a timetable, which involves: <ul style="list-style-type: none"> - sitting for long periods while reading instruments; - communicating by radio or signal telephone to a signaller or train control in a noisy environment; - operating handles to brake and accelerate the train; - constant vigilance to detect and respond to colour signals in a variety of changing conditions; - scanning the track ahead for unexpected events and responding accordingly; - reading and understanding authorities and train orders. • Working a rotating shiftwork roster; • Performance of activities outside the cab in all types of weather, ground conditions, and times of day or night including: <ul style="list-style-type: none"> - climbing in and out of the crew cab; - checking the integrity of the train; - coupling carriages in a confined space; - fixing faults involving kneeling bending and reaching; - using the signal telephone; and - changing points. • Emergency response including: <ul style="list-style-type: none"> - exiting the cab to the ground in unpredictable conditions such as after an accident; and - walking distances to provide protection of the site. 	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when driving; • Normal colour perception in order to read signals and flags; • The ability to focus readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs; • Good eyesight to read data on a flat screen/SBE to monitor the train; • Psychological ability to memorise and retain route knowledge and signal placement; • Good hearing and speech to communicate on radio and communication devices and the ability to discern communications in a noisy environment. (There is also a need to understand written information. This is not a medical issue but should be addressed at pre-placement through other means); • Sufficient musculoskeletal strength and flexibility to be able to: walk externally along the length of the train on uneven ground (ballast) and to correctly un/couple carriages including heavy coupling devices such as air hoses, electrical jumpers and emergency couplers in awkward spaces; • If there is an incident the driver must be able to get out of the cab and walk distances on uncertain terrain in unpredictable weather and light, and take emergency measures to protect the safety of the rail network. <p><i>Health attributes relating to the safety of the worker:</i></p> <p>Covered above.</p>

Example: Passenger Train Driving on the Urban Network (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

The train driver usually operates alone; cabs have a vigilance control and/or 'dead man's device', which the driver needs to continually activate or the brakes will automatically make an emergency application.

For **urban trains** there are a range of other safety devices on the network including train stops and catch points to stop a train in the case a driver does not respond appropriately to signals. In the case of driver incapacity there is an instantaneous activation of the brakes via the deadman's handle and/or pedal, during this time about 650m could be covered at speeds over 100km/h with attendant risks to the safety of the rail network including speeding on restricted curves and through stations and accelerating on down hill gradients.

RISK ANALYSIS & CATEGORISATION:

**High Level SCW
(Category 1)**

Train driving on the urban network is **Safety Critical at a High Level** because:

- Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network;
- Sudden incapacity could also result in a serious incident on the rail network.
- Despite the high level of engineering protection on the urban network, the high traffic density and greater passenger load on urban trains, means that the highest risk category is applied.

SPECIFIC HEALTH ASSESMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment

Normal Colour Vision

Screen based Equipment Examination

All workers will require relevant OHS assessments.

1.1.2 Example: Train Driving on the Non-Urban Network

TASK TRAIN DRIVING ON THE NON-URBAN NETWORK

CONTEXT:

The organisation is a private operator and supplier of freight services across 5 states of Australia. It operates over 4,000km of track with 107 locomotives of varying design and 2,600 freight wagons. Freight carried ranges from timber and grain to general containers, including dangerous goods. The organisation employs 780 employees.

ACTIVITIES AND WORKING CONDITIONS:

The train driver's job involves a variety of activities that include:

- Continuous skilled driving to meet a timetable, which involves:
 - sitting for long periods while reading instruments;
 - communicating by radio or signal telephone to a signaller or train control;
 - operating handles to brake and accelerate the train;
 - constant vigilance to detect and respond to colour signals in a variety of changing conditions;
 - scanning the track ahead for unexpected events and responding accordingly;
 - reading and understanding authorities and train orders.
- Working a rotating shiftwork roster;
- Performance of activities outside the cab in all types of weather, ground conditions, and times of day or night including:
 - climbing in and out of the crew cab;
 - checking the integrity of the train;
 - coupling carriages in a restricted space;
 - fixing faults involving kneeling bending and reaching;
 - using the signal telephone; and
 - changing points.
- Emergency response including:
 - exiting the cab to the ground in unpredictable conditions such as after an accident; and
 - walking distances to provide protection of the site.

HEALTH ATTRIBUTES:

Health attributes relating to the safety of the rail system:

In order to perform these activities the driver requires:

- Good physical and psychological health in order to maintain vigilance when driving;
- The ability to walk externally beyond the length of the train on uneven ground (ballast) and inspect couplings, bogies, etc. which is necessary to protect safety of the rail network;
- Normal colour perception in order to read signals and flags;
- The ability to focus readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs;
- Good eyesight to read data on a flat screen/SBE to monitor the train;
- Psychological ability to memorise and retain route knowledge and signal placements;
- Good hearing and speech to communicate on radio and communication devices. (There is also a need to understand written information. This is not a medical issue but should be addressed at pre-placement through other means);
- Sufficient musculoskeletal strength and flexibility to be able to correctly un/couple carriages including heavy coupling devices such as air hoses, electrical jumpers and emergency couplers in awkward spaces;
- If there is an incident the driver must be able to get out of the cab and walk distances on uncertain terrain in unpredictable weather and light, and take emergency measures to protect safety of the rail network.

Health attributes relating to the safety of the worker:

Covered above.

ENGINEERING AND PROCEDURAL ENVIRONMENT:

The train driver operates alone; cabs have a vigilance control and/or 'dead man's device', which the driver needs to continually activate or the brakes will automatically make an emergency application.

There may be a time delay in the vigilance system before activation of the brakes, during which time significant distance could be covered at speeds of over 100km/h, with attendant risks to the safety of the rail network including no whistle at unprotected level crossings, speeding on restricted curves and through stations and accelerating on down hill gradients.

Example: Train Driving on the Non-Urban Network (cont)**RISK ANALYSIS & CATEGORISATION:****High Level SCW
(Category 1)**

Train driving on the non-urban network is **Safety Critical at a High Level** because:

- Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network;
- Collapse could also result in a serious incident on the rail network due to a delay in the vigilance system before activation of the brakes, during which time significant distances could be covered at speeds of over 100km/h;
- Attendant risks to the safety of the rail network may include no whistle at unprotected level crossings, speeding on restricted curves and through stations and accelerating on down hill gradients.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment

Normal Colour Vision

Screen-Based Equipment Examination if required

All workers will require relevant OHS assessments.

1.2 Examples: Signalling and Controlling

1.2.1 Example: Operation of Signalling Equipment

TASK: OPERATION OF SIGNALLING EQUIPMENT	
CONTEXT:	
<p>The organisation has an integrated structure managing and operating on 9,500 kilometres of narrow gauge track mainly in Queensland. Operators carry passengers, livestock, general freight, coal and minerals, grain, sugar and dangerous goods. The organisation employs approximately 13,700 staff. Operation of signalling equipment is largely incorporated into Train Controller duties and is managed remotely by remote controlled signalling systems (RCS) or Direct Traffic Control (DTC) from Train Control Centres (Refer example for Train Controlling). Signal cabins and signaller duties are located within marshalling yards.</p>	
ACTIVITIES AND WORKING CONDITIONS:	HEALTH ATTRIBUTES:
<p>Signallers are responsible for the control of trains through a section of track, in marshalling yards and protecting infrastructure workers who are instrumental in the movement of trains and rolling stock within these areas:</p> <ul style="list-style-type: none"> • They monitor the progress of the train from a large display board set at a distance above them and activate points and signals by switches or by pulling/releasing levers; • The action may be repeated up to twice a minute at peak hours and requires appreciable strength of arms, back and legs; • Signallers may need to access the track to give a written rail pass to a driver, or to correctly identify red/yellow/green colours from a single lens signal. Note: these types of task are most often performed by related infrastructure personnel due to nature of rostering personnel in signalling work (ie single person on duty); • In the event of a signal failure they may need to access the track and/or arrange for the signal to be re-set and/or issue special authorities to train crew to pass signals at danger; • Signallers also provide track protection and relevant train information to track workers; • Signalling staff, like train control personnel, are required to re-accredit in safeworking qualifications every three years; • The signallers generally work an 8 hour shift, including rostered hand over time. They liaise with track workers, train crew and business groups; • Signallers generally work alone. • Signal cabin operations are generally based on manually managed protection systems (ie the signaller manages the work, rather than automatic setting and re-setting of roads and signals occurring. 	<p>Health attributes relating to the safety of the rail:</p> <ul style="list-style-type: none"> • Good physical and psychological health to be continually alert and make appropriate decisions; • Normal colour vision to read signals in the event of signal failure; • Adequate vision to read a computer screen/Screen based Equipment as well as distance vision; • Hearing and speech as an office worker to communicate on radio devices. <p>Health attributes relating to the safety of the worker: Covered above.</p>

Example: Operation of Signalling Equipment (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

Signal cabins are generally isolated buildings or rooms for a single person, and signallers generally work on their own cabins. Cabins generally house Universal Train Control panels and systems (UTC), or are combined with NX panels which are a combination of switches and buttons with a mimic panel consisting of LED's or incandescent bulbs. These indicate the aspect of signals and location of trains by track circuits.

Common equipment inside the cabins includes desktop computers, train overview, video camera equipment, train control diagrams, telephones, faxes and multi channel radios.

Signallers are required to be accredited in safeworking procedures, and it is these requirement and procedures that are applied on a daily basis to manage movement of trains and rolling stock within marshalling yards. This risk may be assessed at a lower level (Category 2) if fail-safe mechanisms exist across the network in which the signaller is operating ie in an area with an interlocked system. If fail-safe systems do not exist, then the risk may be assessed at Category 1.

The two main systems used in marshalling yards are Interlocked (fail-safe) and Non-Interlocked (non fail-safe). The use of these systems is governed by signalling standards and procedures authorised within the organisation's Safety and Security Management System.

RISK ANALYSIS AND CATEGORISATION:

**High Level SCW
(Category 1)**

Depending on their location signaller's work is **Safety Critical at a High Level** because:

- Physical or psychological ill health in undertaking some or all of the above activities could result in a serious incident on the rail network;
- Fail-safe systems are not universal throughout the network thus sudden incapacity of signalling personnel could jeopardize the safety of the rail system and infrastructure workers in the marshalling yard.
- Analysis of worst case consequence is a single fatality.
- Analysis of the likelihood of this occurrence is possible (expected frequency is once every 10-100 years).

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment.

Normal Colour Vision

Screen-based Equipment Examination as required

All workers will require relevant OHS assessments.

Additional considerations:

The point of entry for signalling and controlling is usually the signaller position and therefore requirements for a signaller should generally be met in the first instance.

1.2.2 Example - Train Controlling

TASK: TRAIN CONTROLLING IN THE NON-URBAN NETWORK	
<p>CONTEXT:</p> <p>The organisation currently has responsibility for the management of 4430 route kilometres of standard gauge interstate track, mainly in South Australia, Victoria and Western Australia. Over these corridors, the organisation is responsible for:</p> <ul style="list-style-type: none"> • Selling access to train operators • The development of new business • Capital investment in the corridors • Management of the Network • The management of infrastructure maintenance <p>The rail organisation's Train Control has up to 8 Boards operating at one time and the ability to combine train control boards in various configuration to meet traffic density. The various Boards operate using CTC, electronic authorities or manual authorities with some boards or combination of boards performing control functions using one or more of the above.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <ul style="list-style-type: none"> • Operators work in a open plan environment and record the progression of trains on a paper graph and authorise trains to proceed using either signalling commands operated from a key board, electronic authority operated from a key board or verbal authority written in a book and given verbally to the recipient then repeated back by the recipient; • They receive information about the progression of trains either from either a screen-based display or from radio conversations with trains and track workers and record same on a paper based train control graph to enable planning of forward movements; • Train controllers make safe working decisions regarding operation of the sector for which they are responsible; • They are in voice communication with trains and track workers to monitor progress the movements. On some train control boards a screen based display gives the current location of the train. Track workers do not appear on the display as their machines are insulated; • They operate in an open plan area and have shift rosters that include night and afternoon shifts. Normal roster hours are 8.5 including hand over; • The work can be routine but it can be stressful dependant upon train and track worker volume and any abnormal working such as signal failures due to weather or other failure mode; • In failure mode for CTC emergency working takes over using Train Authority working; • In emergency situations the Train Transit Manager oversight workers – in an emergency normal safety controls may have to be overridden; • Colours are used on computer screens to identify signal and track settings. 	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health to be alert, particularly in emergencies when decisions may be made that could jeopardise the safety of the rail network; • The ability to distinguish colours on multi-coloured screens as well as adequate vision for SBE work; • Hearing and speech the same as an office worker to communicate on radio devices. <p><i>Health attributes relating to the safety of the worker:</i></p> <p>Covered above.</p>

Example - Train Controlling (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

There are a number of persons in the one room although side screens do segregate each train control board with the two train authority boards where verbal authorities are continually issued are fully enclosed rooms.

The open plan system leads to good peer support and communication between train control jurisdictions in busy periods and times of emergency.

RISK ANALYSIS AND CATEGORISATION:

**SCW
(Category 2)**

Controller tasks are **Safety Critical but NOT at a High Level** because:

- Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network;
- Sudden incapacity on duty however will not jeopardise safety on the rail network because of the fail safe engineering of the signal systems and the limit of authority which has been selected by the train controller and presence of others who can identify the sudden incapacity. Train controllers generally have knowledge of more than one train control board.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

Safety Critical Worker Health Assessment.

Screen-based Equipment eye examination.

Colour vision assessment should be in line with the requirements of the particular screen based equipment. If multi-coloured screens are used "Colour Defective Safe B" is required.

1.3 Example: Shunting

<p>TASK: PERFORMANCE OF SHUNTING DUTIES</p>	
<p>CONTEXT:</p> <p>The organisation is a private operator and supplier of freight services across 5 states of Australia. It operates over 4,000km of track with 107 locomotives of varying design and 2,600 freight wagons. Freight carried ranges from timber and grain to general containers, including dangerous goods. The organisation employs 780 employees.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Shunting work occurs mainly in freight rail yards and involves marshalling the trucks or carriages that make up a train. A rake of trucks may be hundreds of metres long and may contain dangerous goods.</p> <p>The shunter works as a team with the driver of the engine and sometimes a signalman, using radio communication. The shunter acts as the eyes of the driver and controls precise shunting. The work involves:</p> <ul style="list-style-type: none"> • walking extensively over uneven ballast; • opening and closing coupling mechanisms; • applying or releasing brakes to carriages and trucks; • reading colour signals and flags but at lower speeds than train drivers; • using spoken and hand signals to communicate during shunting movements; • coupling air compression lines; • boarding/alighting from trucks and carriages. <p>Shunters also work shiftwork.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when performing shunting activities; • Musculoskeletal strength and agility in order to walk/run on uneven surfaces; apply or release brakes to carriages and trucks; board/alight from carriages; couple air compression lines which requires bending in restricted spaces; • The ability to communicate via signal phones, radios and at a distance to a workgroup; • The ability to determine colour signals and use coloured flags. <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>The commercial rail networks may be protected from the marshalling yards by roll out protection, which would derail any runaway trucks. In addition loose shunting is not permitted. However an error or a sudden incapacity may result in an accident with derailed trucks fouling the commercial rail network or a possible explosion occurring.</p>	
<p>RISK ANALYSIS AND CATEGORISATION:</p> <p>Shunting work is Safety Critical at a High Level because:</p> <ul style="list-style-type: none"> • The freight may comprise dangerous goods thus an accident with derailed trucks entering the commercial rail network or an error or a collapse may result in a possible explosion or environmental contamination; • Loss of vigilance through physical or psychological ill health in performing the shunting activities could result in a serious incident on the rail network eg through incorrectly routing shunted carriages onto the main line; • Frequent communication (eg every 5 seconds) is not an established procedure and is impractical in most instances. 	<p>High Level SCW (Category 1)</p>

Example: Shunting (cont)**SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:**

High Level Safety Critical Worker Health Assessment.

Whilst shunting requires the ability to identify coloured signals it does not require for them to be interpreted at speed, thus "Colour Defective Safe A" is the required level of colour vision.

All workers will require relevant OHS assessments.

Additional considerations:

- Where guards are involved in shunting they should be assessed for the task that is the highest risk.
- The risk may be reduced for shunters involved in shunting passenger vehicles (ie without dangerous goods).
- The risk may also be reduced through establishing regular communication requirements between drivers and shunters.

1.4 Example: Guard duties

TASK: GUARDS AND COUNTRYLINK ONBOARD SERVICES STAFF	
CONTEXT: The rail organisation is an accredited owner of rolling stock and infrastructure, and is the primary provider of passenger rail services in NSW. The organisation also provides passenger services into 3 other states/territories. The organisation operates both electric and diesel passenger trains. The electric trains operate in the greater metropolitan area with the diesel trains traveling in both the metropolitan and country areas to service country locations. The organisation delivers over 320,000,000 passenger journeys per year, and operates approximately 2700 trains daily over 14 different routes.	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Activities include:</p> <ul style="list-style-type: none"> • Standing for long periods of time; • Communicating via communication devices, which may include by train communication devices to the driver, radio or signal telephone to a signaller or train control; • Operating the train doors and ensuring passengers are clear of the doors and the doors are shut prior to indicating to the driver that it is safe to proceed. This may involve moving in and out of the train, especially on curved platforms to ensure passengers are clear; • Holding onto a handle and leaning out of the guard's cab so as to watch the trains in and out of the platform and indicating to the driver if there is a situation which requires the train to stop; • Performing PA announcements to passengers; • Interpreting right a ways; • Assisting with fault finding of the train; • Performing signal sighting duties when required (PSS only); • Working a rotating shiftwork roster; • Performing activities outside the cab in all types of weather, ground conditions, and times of day or night including: <ul style="list-style-type: none"> - climbing in and out of the crew cab; - checking the integrity of the train; and - fixing faults involving kneeling bending and reaching. • Emergency response including: <ul style="list-style-type: none"> - detecting an emergency situation during operation of the train and pull the emergency brake valve; - providing first aid; - flagging defective level crossings; - exiting the cab to the ground in unpredictable conditions such as after an accident and walk distances to provide protection of the site; and - emergency evacuation of passengers to the ground. <p>(cont)</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when performing duties so as to protect safety of the rail network; • Normal colour perception in order to read signals and flags at low speed; • The ability to focus readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs; • Good eyesight to read data on a flat screen/SBE to monitor the train; • Good hearing and speech to communicate on radio and communication devices; • Sufficient musculoskeletal strength and balance to lean out of the cab; • Sufficient musculoskeletal strength and flexibility to correctly un/couple carriages including heavy coupling devices such as air hoses, electrical jumpers and emergency couplers in awkward spaces; • Sufficient musculoskeletal strength and movement to be able to bend and wind points and pull and push points levers; • If there is an incident the guard must be able to get out of the cab and walk distances on uncertain terrain in unpredictable weather and light, and take emergency measures to protect safety of the rail network. <p>(cont)</p>

Example: Guard duties (cont)

<p>Guards and PSS perform the following additional activities:</p> <ul style="list-style-type: none"> • Responding to the (blue) guard's indicator light; • Performing shunting duties when required; • Performing activities outside the cab in all types of weather, ground conditions, and times of day or night including: <ul style="list-style-type: none"> - coupling carriages in a confined space; - using the signal telephone; and - changing points. <p>In addition, guards also perform activities involving:</p> <ul style="list-style-type: none"> • Emergency response due to incapacitation of the driver: <ul style="list-style-type: none"> - driving no faster than 25 km/h in second notch to the nearest station to allow passengers to detrain; - detecting colour signals, purple warning boards or unexpected events and responding appropriately; and - focusing readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs. 	<p>Health attributes relating to the safety of the worker:</p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues to detect an oncoming train; • Physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement.
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>The guard usually operates alone. Onboard services staff work with a team of other onboard staff.</p>	
<p>RISK ANALYSIS & CATEGORISATION:</p> <p>The tasks of guards and onboard service staff are Safety Critical but NOT at a High Level because:</p> <ul style="list-style-type: none"> • Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network; • However, sudden incapacity will not cause a serious incident on the rail network. This will pose an issue of personal safety of the guard and inconvenience to passengers until such a time that the driver or station staff determine the situation; • The guard (but not the onboard service staff) may drive in the case that a driver becomes incapacitated, however this is rare and the risk analysis considered that it would be unlikely that a guard would become incapacitated immediately after a driver due to a health issue. 	<p>SCW Category 2</p>
<p>SPECIFIC HEALTH ASSESMENT REQUIREMENTS:</p> <p>Safety Critical Worker Health Assessment including appropriate musculoskeletal assessment Colour Vision Defective Safe All workers will require relevant OHS assessments. Psychometric testing may be conducted at placement in addition to the general health assessment.</p>	

1.5 Examples: Infrastructure Maintenance

1.5.1 Example: Driving of Road/Rail Vehicles

TASK: DRIVING OF ROAD/RAIL VEHICLES	
<p>CONTEXT:</p> <p>The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand.</p> <p>Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non-urban environment.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Road/rail vehicles are typically commercial vehicles of various types fitted with additional rail wheels so that they may operate on road or rail. The vehicles range from light commercial utilities and 4WDs through to medium or heavy rigid trucks and are typically used by track inspectors, track repair gangs and signalling system maintainers. The vehicle operator may work alone, particularly when road/rail vehicles are used by track inspectors and signals system maintainers.</p> <p>Road/rail vehicle operators are required to obey all rail signals and respond appropriately to radio communications from Train Controllers or Signallers. The cab is relative quiet compared to that of a locomotive.</p> <p>Operators are required to be able to mount and dismount from the vehicle, including in potentially dangerous locations such as embankments and bridges.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail network:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when driving the road/rail vehicle; • Adequate hearing and speech to be able to communicate via signal phones, radios and at a distance to a workgroup; • Adequate visual acuity to enable safe operation of the vehicle; • Depending on the signal system used in the network, the ability to be able to read signals and use coloured flags. <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast; • Musculoskeletal mobility and stability to mount and dismount from the vehicle cab, including at potentially dangerous locations.

Example: Driving of Road/Rail Vehicles (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

Trains are usually, but not always, excluded from the section of track where the vehicle is operating.

In Victoria vehicles are permitted to travel at up to 60km/hour, unless a lower track speed applies. The vehicles are also fitted with a Vigilance Control System (VCS) that will shut down the engine after a maximum of 2 minutes if the vehicle operator fails to respond to visual and auditory warning signals. The VCS does not brake the vehicle.

When operating in Victoria, the vehicles are required to operate with headlights on and with a flashing warning light on the top of the vehicle. The warning lights are required to operate when the vehicle is on or off the track, when crossing a level crossing or when running on a single line.

Road/rail vehicles on track will not operate protected level crossing warning systems and are required to give way to road traffic at ALL level crossings.

RISK ANALYSIS AND CATEGORISATION:

**SCW
(Category 2)**

The task of road/rail vehicle operation is **Safety Critical but NOT at a High Level** because:

- The vigilance system will shut down the engine in the event of incapacity and trains are usually excluded from the track;
- Attentiveness when driving along the track is required to ensure that all relevant signs and signals are obeyed and that the vehicle does not conflict with road traffic at level crossings;
- In the event of operator incapacity, the vehicle may:
 - rapidly increase in speed (collapse with foot hard on accelerator) or reduce to idle speed (collapse with foot off accelerator);
 - risk collision with road traffic by entering a level crossing before braking and/or giving way to road traffic;
 - fail to stop in response to a fixed signal or other warning sign or flag;
 - risk derailing on tight curves or points due to excessive speed; or
 - pass into a track section where entry has not been authorised.

The risk of incapacity followed by any of these events causing significant danger to the network and other rail traffic is considered remote as Hi-rail vehicles are comparatively light weight (cf. trains) and the vehicle will stop after a maximum of 2 minutes.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

Safety Critical Worker Health Assessment.

Hearing levels would be those required for an ATTP.

Colour vision according to the needs of the local network.

All workers will require relevant OHS assessments.

Additional considerations:

- Where vigilance controls are not fitted this may affect the risk assessment.
- Non-exclusion of trains and speed allowances for the vehicles are additional factors that might affect the risk assessment.
- The colour vision requirements may vary depending on the signal system and operating environment.
- If noise in the vehicle is a further variable that may impact on the degree of hearing required.

1.5.2 Example: Track Machine Operation

TASK: TRACK MACHINE OPERATION	
CONTEXT: The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand. Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non-urban environment.	
ACTIVITIES AND WORKING CONDITIONS: Some track workers are responsible for the operation of a range of medium weight track machines such as ballast tampers, regulators, compacters and stabilizers (weight range 8-10 tonnes). Most of these machines operate at very low speeds when working but may travel to and from worksites at speeds of up to 80km/h. Track recording cars and a range of heavier machines such as ballast cleaners and rail grinders may operate at up to line speed. In some types of machine the operator may be working on their own during both work and travel operations. Operators are required to be able to mount and dismount from the vehicle, including in potentially dangerous locations such as embankments and bridges. They may also be required to physically assist in assembly and disassembly of machine components during work/travel conversion.	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when operating machinery; • Adequate hearing and speech to be able to communicate via signal phones, radios and at a distance to a workgroup, potentially in a noisy cab environment; • Adequate visual acuity to enable safe operation of the vehicle; • Depending on the signal system used in the network, the ability read colour signals and use coloured flags. <i>Health attributes relating to the safety of the worker:</i> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • The physical mobility to move quickly out of the way of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast; • Adequate mobility, flexibility and musculoskeletal strength to safely mount and dismount vehicles on track, and assist in physical work associated with work/travel conversion of machinery.
ENGINEERING AND PROCEDURAL ENVIRONMENT: During work and in some travel situations, track machines are normally operated under safeworking protection systems applicable to an obstruction, such as Full Protection, Track Warrants or Absolute Occupations. In many travel situations, track machines operate under the same safeworking rules and systems as are applicable to trains. Most track machines are not fitted with a Vigilance Control System and most do not have a "dead man's handle" or equivalent, ie. they may work or travel as set without the continual intervention of an operator. Some machines deliberately have a fixed settable throttle to suit their work mode and the same throttle is used during travel.	

Example: Track Machine Operation (cont)**RISK ANALYSIS AND CATEGORISATION:****High Level SCW
(Category 1)**

The task of Track Machine Operation is **Safety Critical at a High Level** because:

- Operator incapacity could result in a machine in travel mode continuing on at a pre-set speed (up to line speed in some cases) until possible derailment or collision occurred;
- Vigilance when driving along the track is also required to ensure the safety of the network.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Assessment

Normal Colour vision

All workers will require relevant OHS assessments.

Additional considerations:

- Track Machine Operators who drive machinery classified as a locomotive should be assessed as for a train driver
- The task could be reduced to **Safety Critical but NOT at a High Level** (Category 2) if:
 - solo operation during travel is avoided, or
 - a Vigilance Control System is fitted to the machine, or
 - a "dead man's handle" or equivalent is fitted to the machine, or
 - other suitable engineering or procedural changes are introduced to remove the possibility of the machine continuing unchecked at a pre-set speed in the event of operator incapacity.

1.5.3 Example: Safeworking Protection Party Duties (Flagman)

TASK: SAFE-WORKING PROTECTION PARTY DUTIES (FLAGMAN)

CONTEXT:

The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand.

Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non-urban environment.

In Victoria, Full Protection of any obstruction on the track (which may be a worksite) is arranged through the positioning of outer and inner flagman to warn and/or stop trains approaching the obstruction. These flagmen operate under the direction of the site safeworking coordinator who is positioned at the obstruction. Where it is necessary to protect an obstruction or worksite from trains travelling in both directions, a pair of flagmen must be positioned on each side of the location.

ACTIVITIES AND WORKING CONDITIONS:

Outer flagman

An outer flagman positioned at 2000m from the obstruction in country areas (1200m in metropolitan areas) places 3 Audible Track Warning devices (ATWs or detonators) 10m apart on the track and, whilst positioned at least 40m from the ATWs, displays a Caution signal to train Drivers. On hitting these ATWs, the Driver of an approaching train is required to bring the train under control and be prepared to stop at the next hand signal location.

After passage of a train, the outer flagman replaces the ATWs and resumes display of the Caution signal in preparation for the next train. During periods of heavy traffic, particularly in metropolitan areas, trains could be only a few minutes apart.

The outer flagman is also required to remove the ATWs from the track when directed by the site safeworking coordinator to allow passage of a train from the other direction or at the end of the required protection period.

An outer flagman may be required to operate alone in isolated locations for extended periods.

Inner flagman

An inner flagman positioned at 200m from the obstruction displays a Stop signal unless directed otherwise by the site safeworking coordinator. The inner flagman must be positioned so that he can be seen clearly by the driver of an approaching train (who should be travelling at reduced speed expecting to stop) and be clearly visible from the worksite. Where both conditions cannot be achieved, additional intermediate flagmen may be positioned to ensure the required visibility in both directions.

The site safeworking coordinator normally has radio or mobile phone contact with all the outlying members of the protection party but other means of communication such as visual or audible signals may also be used.

Protection party duties may often be rotated through other suitably qualified members of the site work group to help ensure high levels of vigilance are maintained throughout the protection period.

HEALTH ATTRIBUTES:

Health attributes relating to the safety of the rail system:

- Good physical and psychological health in order to maintain vigilance to detect and respond appropriately to train movements;
- Adequate visual acuity in order to be able to see near and far distances to detect train movement;
- Normal colour vision in order to distinguish coloured signals and operate flags;
- Adequate hearing and speech to be able to communicate via signal phones, radios and at a distance to a workgroup.

Health attributes relating to the safety of the worker:

- The ability to integrate visual, sound and vibration cues in order to detect an oncoming train;
- Physical mobility to move quickly out of the road of an approaching train;
- Adequate visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement;
- The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast (uneven ground). They are also required to stand for long periods of time.

Example: Safeworking Protection Party Duties (Flagman) (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

The protection provided by flagmen/detmen and lookouts, or any other similar types of protection personnel, is entirely dependent upon the continual vigilance and reliability of the person or persons assigned specific protection duties. Train Control/Signallers are not involved in these types of protection, although they may contribute to the effectiveness of the protection by regularly providing up to date train running information.

When a person/group is operating with a lookout, the train Driver has no responsibility for their safety and does not expect to encounter delays or hazards resultant from the person/group's around the track activities. Under Full Protection, the required safeworking outcome is a joint responsibility:

- Persons responsible for protection duties must be appropriately positioned and ensure that all necessary warnings and signals are clearly provided; and
- Train Drivers must be continually vigilant and respond appropriately to ATWs and hand signals.

RISK ANALYSIS AND CATEGORISATION:

**High Level SCW
(Category 1)**

The task of flagman in a Full Protection System is **Safety Critical at a High Level** because:

- Sudden incapacity may lead to a train driver receiving insufficient warning to halt a train before an obstruction on the track. In the worst case this could lead to derailment/collision at or near line speed with the potential for multiple casualties to the travelling public and/or infrastructure workers. The safeworking rules do not currently require that flagmen communicate with Site Coordinators to confirm placement of detonators.
- Constant vigilance is required because a serious incident could occur if a flagman provides incorrect signals.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Health Assessment

Normal Colour Vision

All workers will require relevant OHS assessments.

1.5.4 Example: Safeworking Protection Party Duties (Lookout)

TASK: SAFE-WORKING PROTECTION PARTY DUTIES (LOOKOUT)	
<p>CONTEXT:</p> <p>The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand.</p> <p>Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non-urban environment.</p> <p>Any task on or about the track which does NOT involve obstructing the track but which does make it difficult for an individual or small group to personally remain constantly alert for approaching trains may be carried out under the protection of one or more lookouts.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>A lookout must be positioned such that their distant view of an approaching train travelling at line speed is such that a typical minimum of 25 seconds is available to warn the workgroup and have them clear the line for the passage of a train. The minimum sighting distance to achieve the required warning is dependent upon train speed.</p> <p>A reliable means of communication such as whistles, horns, sirens, etc. must be established between the lookout and the protected person/group. Where visibility is restricted, multiple lookouts operating in relay may be required to achieve the necessary warning times. Under some circumstances it may be necessary to carry out activities that do not obstruct the track under Full Protection rather than a lookout.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <p>NONE</p> <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • Physical mobility to move quickly out of the way of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast (uneven ground). They are also required to stand for long periods of time.
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>The protection provided by lookouts, or any other similar types of protection personnel, is entirely dependent upon the continual vigilance and reliability of the person or persons assigned specific protection duties. Train Control/Signallers are not involved in these types of protection, although they may contribute to the effectiveness of the protection by regularly providing up to date train running information.</p> <p>When a person/group is operating with a lookout, the train Driver has no responsibility for their safety and does not expect to encounter delays or hazards resultant from the person/group's around the track activities.</p> <p>Under Full Protection, the required safeworking outcome is a joint responsibility:</p> <ul style="list-style-type: none"> • Persons responsible for protection duties must be appropriately positioned and ensure that all necessary warnings and signals are clearly provided; and • Train Drivers must be continually vigilant and respond appropriately to ATWs and hand signals. 	

Example: Safeworking Protection Party Duties (Lookout) (cont)**RISK ANALYSIS AND CATEGORISATION:****Not SCW – Uncontrolled Environment (Category 3)**

The task of Lookout is ***NO Safety Critical*** because:

- Sudden incapacity or loss of vigilance will not jeopardise the safety of the train/network because of the nature of the activities conducted under lookouts.
- Persons on or about the track will normally hear a warning horn from the approaching train if the Driver sees them and they do not appear to be aware of the train's presence and/or clearing the track. This reduced warning may result in a hasty exit from the danger zone by infrastructure workers, but the train/network would not normally be endangered.

The Lookout does operate in an uncontrolled environment and is therefore categorised Category 3.

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

Track Safety Health Assessment

All workers will require relevant OHS assessments.

1.5.5 Example: Other Track Maintenance Duties

TASK: OTHER TRACK MAINTENANCE DUTIES	
<p>CONTEXT:</p> <p>The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand.</p> <p>Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non-urban environment.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Track maintainers work in small teams to repair track. They may work in extremes of weather and sometimes on night shifts.</p> <p>They may use heavy mechanical aids such as back hoes or pneumatic drills. Track maintainers are also at personal risk from high-speed trains on the (adjacent) track.</p> <p>Track maintainers who are using machinery often wear hearing protection to reduce their noise exposure levels to 85dB and this limits their hearing. Sometimes specialist welders join the team and use face shields that limit their vision. Therefore it is prudent to regard these teams as functionally deaf and blind regarding detection of oncoming trains.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <p>NONE</p> <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • Physical mobility to move quickly out of the way of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>During work track maintainers generally operate under safeworking protection systems applicable to an obstruction, such as Full Protection, Track Warrants or Absolute Occupations. They may operate alone or with a lookout when the task does not involve obstructing the track.</p>	
<p>RISK ANALYSIS AND CATEGORISATION:</p> <p>Other track maintenance workers <i>are not safety critical</i> because:</p> <ul style="list-style-type: none"> • Their action or inaction due to ill-health will not impact on the safety of the rail network due to the protection practices in place. <p>They are however required to act to protect their own safety and that of fellow workers when walking to and from the site, but when at the work site they should be assumed to be functionally deaf and blind and protected appropriately.</p>	<p>Not SCW – Uncontrolled Environment (Category 3)</p>
<p>SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:</p> <p>Track Safety Health Assessment</p> <p>All workers will require relevant OHS assessments.</p>	

1.5.6 Example: Electrical Systems Maintenance

TASK: ELECTRICAL SYSTEMS MAINTENANCE (Signals & Traction)	
<p>CONTEXT:</p> <p>The organisation provides comprehensive engineering and infrastructure management services to the public and private rail, road, power, telecommunications, mining and resource sectors in Australia, New Zealand, South East Asia, Hong Kong and the Pacific. It is a provider of routine and preventative maintenance services to the road and rail sectors in Australia and New Zealand.</p> <p>Rail infrastructure operations involve construction and maintenance of track and associated systems including signalling, signage and communications. This example applies to the non urban environment.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Electrical systems maintenance workers repair signal systems and overhead wiring systems across the rail network. They may work alone or as part of a team using equipment that varies in size from hand tools to large machinery.</p> <p>Electrical systems workers typically access their worksites by road or road/rail vehicle or may walk along the track to equipment locations.</p> <p>Their activities include maintenance and repair of trackside (for example enclosures or substations) or above track equipment (for example signals or traction wiring) and may involve making electrical connections directly to the rails. Traction system workers may access the overhead from rail mounted or other types of elevated work platforms.</p> <p>When working solo on or about the track, they are often responsible for their own protection but when in groups, lookouts may be used to see or hear trains at a distance. When using hand tools they will not jeopardise the safety of the rail network. However when performing any work that obstructs the track, the relevant Train Control/Signaller is normally notified and protection is put in place in accordance with the safeworking rules.</p> <p>When performing maintenance work, the workers are responsible for function checking their own work. They therefore need to recognise colours at a distance from a single lens signal to check correctness of their repairs and to ensure safety of the network. However they are generally not under time pressure to read the signal and there is often redundant information regarding the signal colour in the control enclosure. They may also be required to distinguish between red, yellow and blue colours on plans and drawings used when commissioning systems. However cross check processes by another person are used to detect any colour identification errors made during commissioning</p> <p>All installation and construction work is checked by a third party prior to commissioning.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <ul style="list-style-type: none"> • The ability to discern colour signals to enable checking of their work, though such capacity is not required at speed. <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train. • Physical mobility to move quickly out of the way of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.

Example: Electrical Systems Maintenance (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

When working solo on or about the track, they are often responsible for their own protection but when in groups, lookouts may be used to see or hear trains at a distance. When using hand tools they will not jeopardise the safety of the rail network. However when performing any work that obstructs the track, the relevant Train Control/Signaller is normally notified and protection is put in place in accordance with the safeworking rules.

Electrical systems maintainers receive a Track Safety Health Assessment as well as relevant safeworking training.

RISK ANALYSIS AND CATEGORISATION:

Not SCW – Uncontrolled Environment (Category 3)

The task of electrical systems maintenance is **not Safety Critical** because:

- Ill health will not impact on the safety of the rail network. When using hand tools their work will not jeopardise the safety of the network and when their activities obstruct the track, protection will be in place according to safe working rules.

They work on or about the track in an Uncontrolled Environment and are therefore required to act to protect their own health and that of fellow workers. They are categorised Category 3.

Signal systems maintenance workers need to recognise colour at a distance from a single lens signal to check correctness of their repairs and to ensure safety of the network. However they are generally not under time pressure to read the signal and there is often redundant information regarding the signal colour in the control enclosure. They may also be required to distinguish between red, yellow and blue colours on plans and drawings used when commissioning systems. However cross check processes by another person are used to detect any colour identification errors made during commissioning. Signal systems maintenance workers are therefore only required to have colour defective safe vision (similar to shunting).

SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:

Track Safety Health Assessment

Colour Defective Safe colour vision

All workers will require relevant OHS assessments.

Other considerations

- If an electrical systems maintenance worker is required to act as a flagman in a protection party, they must meet the specified medical requirements for that risk category (Category 1).
- If an electrical systems maintenance worker is required to drive a road-rail vehicle, they must meet the specified medical requirements for that risk category (Category 2).

1.6 Examples: Rolling Stock Maintenance

1.6.1 Example: Rolling Stock Maintenance

TASK: ROLLING STOCK MAINTENANCE	
CONTEXT: The organisation is a rail freight logistics company that offers a seamless national logistics service for containerised freight, coal, industrial and agricultural products. A fleet of 120, 4000hp DASH-9 locomotives and more than 1,000 new lightweight container platforms provide modern, efficient and reliable rollingstock and form the core of the organisation's total fleet of 176 locomotives and 4,600 wagons.	
ACTIVITIES AND WORKING CONDITIONS: Maintainers of rolling stock are typically fitters and turners and their assistants, or other tradespeople. They perform the full range of engineering required to maintain chassis, engines, bogies and seating. They usually work in large workshops with rails entering the shops to bring in rolling stock. They may leave the shops to perform other activities (for example brake blocking, washing carriages, fuelling engines). In the event of a rail accident a team of recovery workers is formed from workers in the workshops. At the site they may use heavy equipment such as cranes or cutting and welding equipment. They may be required to climb over difficult terrain and wrecked carriages in bad weather and light.	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> NONE <i>Health attributes relating to the safety of the worker:</i> <ul style="list-style-type: none"> • Adequate vision to detect moving trains and warning lights, and to recognise red/green flags or lights in unusual situations; • Adequate hearing to detect a train or warning sounds; • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the ability to move quickly; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
ENGINEERING AND PROCEDURAL ENVIRONMENT: The workshop area is a Controlled Environment. There is a handover procedure from the driver to the maintenance workers and a system of warning lights for train movements.	
RISK ANALYSIS AND CATEGORISATION: The task of rolling stock maintenance is NOT Safety Critical , because ill health will not jeopardise the safety of the rail network. a) Controlled Environment (Not SCW – Category 4) Maintainers who work only in the Controlled Environment of the workshop are protected by appropriate warning systems and procedures and therefore have negligible risk from moving trains (Category 4). b) Uncontrolled Environment (Not SCW – Category 3) Maintainers whose work requires that they leave the workshops to perform other activities on or about the track are at risk from moving trains because they have entered an Uncontrolled Environment.	Not SCW (Category 4 – Controlled Environment) Not SCW – Uncontrolled Environment (Category 3)

Example: Rolling Stock Maintenance (cont)

<p>c) Recovery Workers (Not SCW – Category 3)</p>	<p>Not SCW (Category 3 – Uncontrolled Environment)</p>
<p>In the event of a rail accident a team of recovery workers is formed from workers in the workshops. At the site they may use heavy equipment such as cranes or cutting and welding equipment. The latter requires eye protection and because of noisy equipment they may wear hearing protection. Therefore at the accident scene they should be regarded as functionally deaf and blind and must be given appropriate protection from passing trains. However members of these teams should have a Track Safety Health Assessment for their protection while accessing the crash site.</p> <p>They may be required to climb over difficult terrain and wrecked carriages in bad weather and light. Therefore a high level of fitness is required for this work. The assessment of such fitness is a specific occupational health and safety matter and beyond the scope of this Standard.</p>	
<p>SPECIFIC HEALTH ASSESSMENT REQUIREMENTS:</p> <p>Track Safety Assessment for those working in an Uncontrolled Environment (Category 3).</p> <p>No health assessment requirements for Category 4.</p> <p>All workers will require relevant OHS assessments.</p>	

1.6.2 Example: Train Examination

TASK: TRAIN EXAMINATION	
CONTEXT: The organisation is a rail freight logistics company that offers a seamless national logistics service for containerised freight, coal, industrial and agricultural products. A fleet of 120, 4000hp DASH-9 locomotives and more than 1000 new lightweight container platforms provide modern, efficient and reliable rollingstock and form the core of the organisation's total fleet of 176 locomotives and 4,600 wagons.	
ACTIVITIES AND WORKING CONDITIONS: Train Examiners inspect a train for its integrity prior to dispatch from rail yards and are the quality control point for the mechanical safety of a train which has implications for the safety of the network. They work in isolation and under time pressure so vigilance is important. They lock off the train when examining it and then check it by walking along the ballast and bending to check couplings, bogies and protrusions. They then issue a Train Inspection Certificate to clear a train. They communicate by radio.	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when examining the train; • The ability to communicate via signal phones, radios and at a distance to a workgroup; • Sufficient musculoskeletal strength and flexibility to be able to correctly check coupling devices such as air hoses, electrical jumpers and emergency couplers in awkward spaces. <i>Health attributes relating to the safety of the worker:</i> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • The physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
ENGINEERING AND PROCEDURAL ENVIRONMENT: When working solo on or about the track, Train Examiners are often responsible for their own protection but when in groups, lookouts may be used to see or hear trains at a distance. When using hand tools they will not jeopardise the safety of the rail network. However when performing any work that obstructs the track, the relevant Train Control/Signaller is normally notified and protection is put in place in accordance with the safeworking rules.	
RISK ANALYSIS AND CATEGORISATION: The train examination task is <i>Safety Critical but NOT at a High Level</i> because: <ul style="list-style-type: none"> • Constant vigilance is required because an error in train examination may jeopardise the safety of the network; • However, sudden incapacity will not lead to a serious incident on the rail network. 	SCW (Category 2)
SPECIFIC HEALTH ASSESSMENT REQUIREMENTS: Safety Critical Worker Assessment No colour vision requirement All workers will require relevant OHS assessments.	

1.7 Example: Freight Yard Work

TASK: FREIGHT YARD WORK	
CONTEXT: The organisation is a rail freight logistics company that offers a seamless national logistics service for containerised freight, coal, industrial and agricultural products. A fleet of 120, 4000hp DASH-9 locomotives and more than 1000 new lightweight container platforms provide modern, efficient and reliable rollingstock and form the core of the organisation's total fleet of 176 locomotives and 4,600 wagons.	
ACTIVITIES AND WORKING CONDITIONS: Freight yard workers unload pallets or containers of goods (including dangerous goods) from wagons often using forklifts.	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> NONE <i>Health attributes relating to the safety of the worker:</i> When working in an uncontrolled environment: <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • The physical mobility to move quickly out of the road of an approaching train; • The ability to see warning lights and hear warning sirens in order to detect moving plant and equipment; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
ENGINEERING AND PROCEDURAL ENVIRONMENT: Where freight workers work in a Controlled Environment, their work area is well protected from train movements by a lockout system and warning lights and sirens. However if they need to leave the controlled environment and enter other track areas then they require adequate vision to detect moving trains and warning lights, adequate hearing to detect a train or warning sounds and to recognise coloured flags or lights in unusual situations.	
RISK ANALYSIS AND CATEGORISATION: Freight yard workers are NOT Safety Critical because: <ul style="list-style-type: none"> • the safety of the rail network will not be jeopardised by their activities or by them incurring a sudden incapacity at work. Those working in a Controlled Environment are at low risk and no health assessment is required (Category 4). Those working in an Uncontrolled Environment are at risk in terms of their own safety with respect to moving trains (Category 3).	Not SCW (Category 3 or 4 depending on Controlled Environment)
HEALTH ASSESSMENT REQUIREMENTS: Track Safety Health Assessment (if Category 3) No assessment (if Category 4) All workers will require relevant OHS assessments.	

2. EXAMPLES FOR COMMERCIAL TRAM OPERATIONS

2.1 Example: Tram Driving - Suburban

TASK: TRAM DRIVING - SUBURBAN	
CONTEXT: The organisation is an accredited owner of rolling stock and infrastructure, and is a provider of passenger tram services in Melbourne. It operates a fleet of 216 trams of the following classes; "A", "B", "W" and Citadis. The organisation delivers over 60,000,000 passenger journeys per year, over 9 major routes.	
ACTIVITIES AND WORKING CONDITIONS: The tram driver is required only to drive the tram. Tickets are dispensed by machine; there are no conductors. Drivers may be required to operate several types of trams that differ with respect to the types of controls and vigilance systems. The driver usually controls the tram by using a console of buttons and switches plus hand levers and foot pedals. There may also be side mirrors and video to aid internal and external views. The driver is required to perform continuous skilled driving to meet a timetable. The main stress on the driver is the need to drive defensively in road traffic because a tram can only brake; cannot steer to avoid obstacles. Tram separation is maintained by line of sight. In the case of an emergency or incident the driver is required to get out of the tram and act to protect the safety of the network. The road is usually predictable and well lit.	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> <ul style="list-style-type: none"> • Good physical and psychological health to maintain vigilance when driving to protect the safety of the rail network; • Adequate level of fitness and dexterity to enable driver be able to get out onto the road in the case of an emergency; • Visual acuity and visual fields to ensure safe operation of the tram; • Normal colour perception is not essential for tram drivers. They are similar to commercial vehicle drivers who do not require red vision because red traffic lights give positional cues. Also trams are usually on well-lit roads which enables detection of emergency signs. <i>Health attributes relating to the safety of the worker:</i> Covered above. ✓
ENGINEERING AND PROCEDURAL ENVIRONMENT: The vigilance systems on Class A, B and Z trams are sensitive foot pedals that activate the brakes immediately if foot pressure lessens. The new Citidas class trams have a sliding hand-controlled combined accelerator and vigilance system which is responsive to hand pressure and movement. If the pressure is suddenly reduced (as in a sudden incapacity) the device recoils and begins applying the brakes and if not activated in three seconds it sounds an alert and in another two seconds activates the emergency brakes. This is a sophisticated vigilance system. All the W class trams used on the Melbourne City Circle have been modified to include a vigilance system and travel at less than 40km/h. Power cuts off at 35 km/h and at 40 km/h the emergency braking automatically kicks in until the tram stops. In addition, the driver is in radio contact with central control.	
RISK ANALYSIS AND CATEGORISATION: The drivers are Safety Critical but NOT at a High Level because: <ul style="list-style-type: none"> • If the driver is incapacitated, the deadman's handle/pedal immediately activates the brakes to stop the tram, which cannot veer across the road. Therefore sudden incapacity will not jeopardise safety of the tram network. • Vigilance when driving along the track is required to ensure the safety of the network. 	SCW (Category 2)
HEALTH ASSESSMENT REQUIREMENTS: Safety Critical Worker Assessment No colour vision requirement All workers will require relevant OHS assessments.	

2.2 Example: Fleet Operation (Controllers)

TASK: FLEET OPERATION (CONTROLLERS)	
CONTEXT: The organisation is an accredited owner of rolling stock and infrastructure, and is a provider of passenger tram services in Melbourne. It operates a fleet of 216 trams of the following classes; "A", "B", "W" and Citadis. The organisation delivers over 60,000,000 passenger journeys per year, over 9 major routes.	
ACTIVITIES AND WORKING CONDITIONS: Fleet Operation workers in the control room monitoring the progress of trams on computers and are in radio contact with drivers. Unlike rail controllers, they do not make decisions regarding routing or operation of the tram which would directly impact on the safety of the tram network. They are required to communicate by radio. Fleet Operation workers in the field are also required to drive trams and will need to be assessed as for a tram driver (that is a Safety Critical Worker)	HEALTH ATTRIBUTES: <i>Health attributes relating to the safety of the rail system:</i> NONE <i>Health attributes relating to the safety of the rail worker:</i> NONE
ENGINEERING AND PROCEDURAL ENVIRONMENT: The organisation's Fleet Operation workers work rostered shifts environment at control centres located within Depot Administration buildings. They are required to direct tram drivers in cases of emergency and to re-route trams around incident sites but as tram separation is maintained by line of sight this is not considered to be critical to the safety of the tram network.	
RISK ANALYSIS AND CATEGORISATION: The task of tram Fleet Operation in the control room is NOT Safety Critical as the activities do not impact the safety of the network. The nature of the controllers work also does not impact on their own safety or that of fellow workers, thus they are categorised Category 4 and have no health assessment requirements linked to that task. However like the Line Officers, Network Officers and Depot Starters, Control Centre Operators are required, as per their position descriptions, to be in mobiles and drive trams in emergency situations. The nature of the controllers tasks in the field would impact on their own safety or that of fellow workers, thus they would be categorised Category 2 and have health assessments accordingly (refer Example 2.1).	Not SCW – Controlled Environment (Category 4)
HEALTH ASSESSMENT REQUIREMENTS: Generally no health assessment requirements other than OHS. All workers will require relevant OHS assessments.	

Additional considerations:

- Fleet Operation workers who are required to drive trams will need to be assessed as for a tram driver (that is a Safety Critical Worker) Category 2.
- Issues such as adequate speech and hearing to perform radio communications should be addressed at pre-employment.

2.3 Example: Maintenance Workers

TASK: TRAM MAINTENANCE	
CONTEXT: The organisation is an accredited owner of rolling stock and infrastructure, and is a provider of passenger tram services in Melbourne. It operates a fleet of 216 trams of the following classes; "A", "B", "W" and Citadis. The organisation delivers over 60,000,000 passenger journeys per year, over 9 major routes.	
ACTIVITIES AND WORKING CONDITIONS: Maintainers work in sheds and are responsible for all aspects of maintenance of trams including bogies, chassis, electrical and fittings. Trams are slowly brought into sheds by the maintainers themselves. Some maintainers are required to test drive trams on commercial rail networks and should therefore be assessed as for Tram Drivers.	HEALTH ATTRIBUTES: Health attributes relating to the safety of the rail system: NONE Unless required to drive a tram on the network. Health attributes relating to the safety of the worker: NONE
ENGINEERING AND PROCEDURAL ENVIRONMENT: Maintainers work in a Controlled Environment.	
RISK ANALYSIS AND CATEGORISATION: The task of tram maintenance is NOT Safety Critical because the activities do not impact on the safety of the tram network. The workers operate in a Controlled Environment and are therefore not at risk from moving rolling stock. They are therefore categorised Category 4.	Not SCW – Controlled Environment (Category 4)
HEALTH ASSESSMENT REQUIREMENTS: Generally no health assessment requirements other than OHS.	

Additional considerations:

- Maintainers are qualified tradesmen and it is assumed they are technically competent.
- Some maintainers are required to drive recovered disabled trams that may have defective vigilance controls and should therefore be assessed as Tram Recovery Drivers.
- Some maintainers are required to test drive trams on commercial rail networks and should therefore be assessed as for Tram Drivers (Category 2, Safety Critical Worker Assessment).
- Should they be required to enter an Uncontrolled Environment then they would be classified Risk Category 3 should be assessed accordingly.

2.4 Example: Infrastructure/Electrical & Recovery Work

TASK: INFRASTRUCTURE / ELECTRICAL & RECOVERY WORK	
<p>CONTEXT:</p> <p>The organisation is an accredited owner of rolling stock and infrastructure, and is a provider of passenger tram services in Melbourne. It operates a fleet of 216 trams of the following classes; "A", "B", "W" and Citadis. The organisation delivers over 60,000,000 passenger journeys per year, over 9 major routes.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>The workers may be wearing face shields when welding or ear muffs when using pneumatic drills and therefore should be regarded as functionally blind and deaf and their safety ensured by lookouts as well as barriers, signs and warning lights.</p> <p>Electrical workers usually work in a tower above a truck with the driver responsible for traffic safety.</p> <p>Recovery workers go to the scene of a breakdown or accident involving a tram. They may be required to drive a tram on the commercial rail network.</p>	<p>HEALTH ATTRIBUTES</p> <p>Health attributes relating to the safety of the rail system:</p> <p>NONE</p> <p>Unless required to drive a tram on the network.</p> <p>Health attributes relating to the safety of the worker:</p>
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>Infrastructure work on tramlines is often at night after the service has ceased or on protected (closed) track. The hazard to infrastructure workers is therefore usually from road traffic rather than trams. The standard safety procedures for traffic management as required by VicRoads are enforced to protect these workers (refer <i>Australian Standards Handbook HB81 series: Field Guide for traffic control at works on roads 1996</i>).</p>	
<p>RISK ANALYSIS AND CATEGORISATION:</p> <p>Recovery Work Involving Tram Driving</p> <p>All recovery workers required to drive trams on commercial rail networks should be examined as for a Tram Driver SCW (Category 2).</p> <p>Other Infrastructure Workers</p> <p>For all other infrastructure workers there is no health assessment is proposed where:</p> <ul style="list-style-type: none"> the jobs will not jeopardise safety of the tram network; there is protection from traffic in place to create a Controlled Environment. <p>However examinations for occupational health and safety or a licence to drive a commercial vehicle may be required but are outside the scope of this Standard.</p>	<p>Not SCW (Category 3 or 4 depending on Controlled Environment)</p>
<p>HEALTH ASSESSMENT REQUIREMENTS:</p> <p>Track Safety Assessment (if Category 3)</p> <p>No health assessment if Category 4</p> <p>All workers will require relevant OHS assessments.</p>	

3. EXAMPLES FOR TOURIST / HERITAGE RAIL OPERATIONS

The tourist and heritage railway sector in Australia comprises over 70 operators, mostly not-for-profit volunteer based organisations operating at weekends and holiday periods. Some larger operators provide more frequent/daily services and retain a small core of paid employees.

Most tourist/heritage operators provide public passenger train or track vehicle services on track under their exclusive use and control within State boundaries, but some also operate over the intrastate/interstate commercial (shared) networks and a few are member-only or freight only operations.

In addition there are various tourist/heritage groups involved in research, publication, static preservation of vehicles and artifacts that may in future seek to become involved in operations.

Tourist/heritage operators may be defined or declared as such by a Regulator and/or Access Manager based on particular market characteristics or other criteria independent of the health assessment process.

Tourist/heritage sector workers may work with a variety of operators – portability of medical standards provides important flexibility in a sector which relies upon cost effective operation and efficient resourcing.

Tourist/heritage operations generally have important differences from commercial rail operations due to the type of rolling stock operated, the markets served and the scope of operation.

The types of tasks performed in the tourist/heritage sector can often involve individual workers in greater physical input and higher exposure to OHS issues than similar tasks in the commercial network – primarily due to the age and type of equipment used and the legacy nature of some work practices. Training procedures and costs are major issues for tourist / heritage operators.

Types of tourist / heritage operation:

Risk analysis for tourist/heritage sector tasks should be firstly based upon determining the **type of operation**.

The risk analysis for the same or substantially similar task on a commercial (shared) network should apply, unless the factors outlined below categorise the type of operation as a tourist/heritage operation not on the commercial (shared) network.

Tasks performed on train operations or on portions of tourist/heritage lines which interface with the commercial (shared) network should have the same risk category as the same or substantially similar task on the commercial (shared) network.

The reasoning should be documented and the appropriate health assessment identified.

Tourist / heritage trains not on the Commercial (shared) Network:

Tourist/heritage train operations on single user, dedicated lines are generally characterised by the following:

- The organisation provides its own access and corridor management;
- There is low traffic density and service frequency;
- Line speeds are low, up to a typical maximum of 40 – 60 km/h;
- They are likely to operate on short, isolated lines (or a portion of a line) up to 40 km, with no direct physical interface to the commercial (shared) network;
- Workers generally perform tasks sporadically as volunteers or employees of the operator, or of other tourist/heritage or commercial operators;
- The organisation generally performs or arranges its own track, corridor, infrastructure and rolling stock maintenance, often with less

- mechanised assistance than on the commercial (shared) network;
- There are generally simple, traditional safety and signalling systems and operational practices;
- Locomotives generally operate with a two person crew, or single manned self propelled trains / track vehicles equipped with safety apparatus.

Tourist / heritage trains on the Commercial (shared) Network:

Tourist/heritage train operations on multi user, shared, commercial 'main' lines are generally characterised by the following:

- Network access for the organisation and other operators on the network is controlled and administered by an Access Manager;
 - Network access is provided and regulated to common standards for all other operators using the same network;
 - Operating environment allows higher line speeds and multiple train operations;
- Rolling stock may have different operating characteristics to normal commercial operations, however health factors are largely common to other commercial (shared) network operators;
 - Operator maintains or arranges its own maintenance of rolling stock to a condition suitable for operation on the commercial (shared) network, often with traditional, less mechanised processes than used by commercial operators;
 - Workers who are engaged as employees or volunteers of the operator perform tasks sporadically, but may otherwise be engaged by other commercial (shared) network operators or tourist/heritage operators;
 - Track, infrastructure and corridor maintenance is the responsibility of the Access Manager;
 - Safety and signalling systems and equipment are prescribed by the Access Manager and are those that apply on the commercial (shared) network;
 - Locomotives, track vehicles and trains are operated and crewed in a manner consistent with normal permitted practice on the commercial (shared) network.

3.1 Example: Driving of Tourist/Heritage Trains

The diversity of operation influences the risk analysis for drivers of trains on tourist railways. A key consideration in the risk analysis of drivers is whether they run on the commercial rail network.

3.1.1 Example: Driving of a Tourist Train on a Dedicated Line

TASK: DRIVING OF A TOURIST TRAIN ON A DEDICATED LINE	
<p>CONTEXT:</p> <p>The organisation operates 364 days per year, carrying over 250,000 passengers annually on its 25km narrow gauge (2'6) line. At least two locomotives are steamed each day, with three or more on most days, to run a total of 47,000 train-kilometres annually, including evening services. The active operating fleet includes nine steam locomotives, three diesel locomotives and over 36 carriages, with numerous other items of rolling stock on restricted usage or awaiting restoration. Maximum train weight is 200 tonnes (inc locos) and top line speed is 32km per hour.</p> <p>Safeworking is based on the staff and ticket system supported by semaphore signals with limited detection/interlocking at major stations. Active protection (lights & bells without booms) is provided at most crossings.</p> <p>The organisation employs 44 FTE staff but unpaid labour (from a pool of about 600) still accounts for over two thirds of the human resource. In addition to the volunteers, unpaid labour is sourced from state and government employment schemes, corporate and international volunteering groups, and court based community service schemes.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>The driver's job involves a variety of activities including:</p> <ul style="list-style-type: none"> • Driving for relatively short periods (max 30 minutes between station stops) which involves sitting or standing whilst reading gauges, communicating by radio, operating levers to brake and accelerate the train, scanning the track ahead and periodic inspection of the train behind (without the aid of side mirrors); • Constant vigilance to detect red/green signals or unexpected events and respond appropriately; • Performance of activities outside the cab including checking the integrity of the train, bending to inspect and test vehicle brakes, checking and oiling of locomotive bearings; • Supervising and assisting the fireman (see activities for fireman below); • Re-coaling of steam locomotives, generally involving operating a front-end loader tractor; • Checking and preparing the locomotive for service (including climbing into and from an inspection pit for under-locomotive work) or climbing onto the upper part of the locomotive to access some components; • In emergency situations the driver must be able to exit the cab to the ground in unpredictable conditions such as after an accident. 	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health in order to maintain vigilance when driving so as to protect safety of the tourist line; • In the case of an incident, the ability, to get out of the cab onto uncertain terrain and take emergency measures to protect the safety of the line; • Normal colour perception in order to read lamp signals (at night) and flags to protect the safety of the line; <p><i>Health attributes relating to the safety of the worker:</i></p> <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train and the physical mobility to move quickly out of the road of an approaching train; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.

Example: Driving of a Tourist Train on a Dedicated Line (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

The locomotives, both steam and diesel, operate with two qualified persons in the cab, except when operating within defined workshop limits.

The locomotives do not have a vigilance system or deadman's handle.

The locomotives do not operate on the commercial network.

RISK ANALYSIS AND CATEGORISATION:

**SCW
(Category 2)**

These drivers are **Safety Critical but NOT at a High Level** because:

- Whilst the locomotives do not have vigilance systems or a deadman's handle, there are always two persons in the cab who can operate brakes (as well, in the case of passenger trains, as a guard who has a brake), so if one collapses the other may operate the brakes, hence the safety of the line is not in jeopardy if one collapses;
- The drivers require good general physical and psychological health to maintain vigilance in conducting the activities required of them.

HEALTH ASSESSMENT REQUIREMENTS:

Safety Critical Worker Assessment

Colour Vision Normal

All workers will require relevant OHS assessments.

Other considerations:

If there is only one qualified person in the cab this is likely to result in a higher risk analysis.

Acknowledgement:

The above example draws on the Risk Analysis for Rail Safety Work at the Puffing Billy Railway which is copyright Emerald Tourist Railway Board. Used with permission.

3.1.2 Example: Driving of Tourist Train on a Commercial Main Line

TASK: DRIVING OF TOURIST TRAIN ON THE COMMERCIAL NETWORK

CONTEXT:

The organisation operates about 200 days per year, carrying over 12,000 passengers annually over the standard gauge NSW mainline network including the Greater Sydney electrified system. A total of 20,000 train-kilometres annually, including extended country tours of up to 1 week duration. The active operating fleet includes four steam locomotives, four diesel locomotives and over 20 carriages, with numerous other items of rolling stock such as water gins and service vans. Train weights of 600 tonnes (inc locos) are not uncommon and top line speed is 115km per hour. There are occasions when distributed motive power, an additional steam or diesel locomotive is used when the haulage capacity of one locomotive is exceeded. In these circumstances, both locomotives are fully crewed.

Safeworking is that in force on the NSW commercial network.

The accredited operator is a non-profit company limited by guarantee. The organisation employs 6 permanent staff together with locomotive and safeworking staff employed on a casual basis. The majority of these casual employees are permanent employees of other operators on the NSW commercial network. A large pool of volunteers assist with catering and other on-board train services, cleaning maintenance and restoration.

ACTIVITIES AND WORKING CONDITIONS:

The driver's job involves a variety of activities including:

- Continuous skilled driving to meet a timetable, which involves working a rotating shiftwork roster taking into account fatigue management principles, reporting fit for duty to carry out rail safety work;
- Driving for significant periods between station stops which involves sitting or standing whilst reading gauges, communicating by radio, operating levers to brake and accelerate the train, scanning the track ahead and periodic inspection of the train behind (without the aid of side mirrors);
- Constant vigilance to detect colour signals or unexpected events and respond appropriately;
- Performance of activities outside the cab including checking the integrity of the train, bending to inspect and test vehicle brakes, checking and oiling of locomotive bearings;
- Supervising and assisting the fireman (see activities for fireman below);
- In emergency situations the driver must be able to exit the cab to the ground in unpredictable conditions such as after an accident.

HEALTH ATTRIBUTES:

Health attributes relating to the safety of the rail system:

- Good physical and psychological health in order to maintain vigilance when driving so as to protect safety of the commercial network;
- The ability to focus readily at changing distances and lighting levels (such as entering a tunnel) to see signals or other signs;
- Psychological ability to memorise and retain route knowledge and signal placement;
- Good hearing and speech to communicate on radio and communication devices and the ability to discern communications in a noisy environment;
- Sufficient musculoskeletal strength and flexibility to carry out the physical activities associated with the working of a steam engine, eg. shovelling of coal;
- In the case of an incident, the ability, to get out of the cab onto uncertain terrain and take emergency measures to protect the safety of the line;
- Normal colour perception in order to read signals (at night) and flags to protect the safety of the line;
- Adequate speech and hearing so as to be able to communicate by radio.

Health attributes relating to the safety of the worker:

Covered above.

Example: Driving of Tourist Train on a Commercial Main Line (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

The steam locomotives may operate with up to three qualified persons in the cab, (driver, fireman and qualified fitter) except when operating within defined yard limits. These locomotives do not have a vigilance system or deadman's handle.

The diesel locomotives operate with two qualified persons in the cab, except when operating within defined yard limits. These locomotives have a vigilance system.

The locomotives operate on the commercial network.

RISK ANALYSIS AND CATEGORISATION:

**High Level SCW
(Category 1)**

The task of driving a tourist train on a commercial network is **Safety Critical at a High Level** because:

- Physical or psychological ill health in performing some or all of the above activities could result in a serious incident on the rail network;
- Sudden incapacity could also result in a serious incident on the rail network despite the presence of 2 or more competent persons in the cab. The fitter does not always hold Safeworking or train working qualifications and it is not mandatory to have the fitter travel on the engine at all times. The guard is not restricted to remaining in his compartment with his hand on the "tail" and in fact many operators have removed the handle in the passenger cars due to passenger interference;
- The steam locomotives do not have vigilance systems or a deadman's handle.

HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment

Colour Vision Normal

All workers will require relevant OHS assessments.

Other considerations

Should systems and procedures be implemented to ensure that 2 qualified persons are in the cab at all times, the risk assessment may result in a reduction of risk category to Category 2.

3.2 Example: Operation of Section Car

TASK: OPERATION OF SECTION CAR	
<p>CONTEXT:</p> <p>The organisation operates rolling stock on a variety of commercial and tourist railway corridors, upwards of thirty days per year, spread across at least two jurisdictions. Historically, it has managed to operate over 18,000 person kilometres in its two years of operations. Railways include heavy haul lines of one train a day, lines not providing either commercial or heritage services, or lines providing solely heritage services.</p> <p>Its operations are provided solely for the benefit of its members who own and maintain railway motor section cars (also known as trikes, quads, trolleys, jiggers, gang motors and putt-putts). Operation of section cars is restricted to persons over the age of 16.</p> <p>Safeworking is provided by the host organisation, or its contractors, with interface operator accredited safeworkers providing the interface. Some organisations apply additional safeworking controls to operations (including but not limited to "one clear section at all times", "section cars to follow trains") when other services are operating.</p> <p>Section cars are operated on working railways, at times working in with trains of masses upwards of 16000t. Maximum speed of section cars is 40km/h subject to a lesser speed imposed by the host organisation.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Section cars operate generally with two or more people on board, one of whom is accredited to operate alone.</p> <p>Operators of section cars may operate solo from time to time.</p> <p>They may travel up to 150km per day by section car.</p> <p>They may travel on a vehicle that is open to the environment.</p> <p>They do not read colour signals as they have authority for that section of track.</p> <p>An operator of a section car broadly needs to be able to;</p> <ul style="list-style-type: none"> • Apply a safe technique to the starting of a section car (in particular a two stroke powered unit); • Identify a safe speed, and maintain a safe speed within reasonable parameters; • Hold onto a control lever for extended periods; • Use lifting and turning devices provided for the safe manoeuvring of a vehicle; • Judge stopping distances based on the condition of track, section car and speed, allowing sufficient space between vehicles to be able to stop without contributing to a collision; • Understand and respond to direction from a host safeworker, or representative of ASSCO; • Sit for periods of up to two hours whilst operating a vehicle; • Communicate via flag signal (single orange flag with silver stripe); • Communicate via radio, generally when section car is not running. 	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <ul style="list-style-type: none"> • Not likely to suddenly lose consciousness; • Not likely to be adversely affected by noise, vibration or exposure to environmental extremes; • Able to detect and respond appropriately to visual and audible cues, including radio communications, animals on track, the presence of and traffic through a crossing; • Able to manually manoeuvre a section car, dependant on type and size, clear of a railway line using basic devices such as lift handles or portable turntables, or has access to assistance to do so; • From time to time, under the direction of a qualified officer operate plant and equipment within the railway environment. • The driver is considered functionally deaf in performing these duties thus no hearing requirement is set. <p><i>Health attributes relating to the safety of the rail worker:</i></p> <ul style="list-style-type: none"> • Able to walk over uneven surfaces with little to no assistance; • Ability to hold onto and effectively maintain force on controls such as a belt lever or brake system.

Example: Operation of Section Car (cont)**ENGINEERING AND PROCEDURAL ENVIRONMENT:**

Section cars may be operated in groups up to twenty, with one or more operators on each. The group is usually led by a road/rail vehicle fitted with vigilance and under the control of an accredited operator; or is led by a section car carrying two or more people one of whom is an accredited operator.

RISK ANALYSIS AND CATEGORISATION:

**High Level SCW
Category 1**

The risk profile for operation of section cars, **in convoy** is SCW Category 2 because;

- Generally two people travel on the lead vehicle, one of whom can recover control of the vehicle in the event of the operator collapsing;
- The collapse of any person in a trailing vehicle, where there is only one person, is likely to impact only on the leading vehicles and be contained;
- Where hiring a road/rail vehicle to lead, the road/rail is fitted with a vigilance system;
- A light section car is unlikely to derail a locomotive in the event of impact.

However, the risk profile needs to be based on a single operator, running lead car who suffers an event impairing their ability to stop a vehicle.

- A car may have a range of up to 150km before running out of fuel and stopping;
- The single car may run into an unprotected crossing, injuring or killing a member of the public;
- Most section cars are fitted with throttles that can be set and held.

Further, the potential for impairment from environmental factors, such as heat, dehydration, fatigue and cold all add further variants to the risk equation.

Thus the task of Section Car Driver is **Safety Critical at a High Level**.

HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment including

No colour vision requirement

No hearing requirement unless classified as ATTP operating in an uncontrolled environment

All workers will require relevant OHS assessments.

3.3 Example: Train supervisor / Head Conductor

TASK: TRAIN SUPERVISOR/HEAD CONDUCTOR	
<p>CONTEXT:</p> <p>The organisation operates approximately 120 train departures per year. It operates on track physically isolated from any other rail network and has sole occupancy and control of its own network. Safeworking is by Train Order system. The conductor takes no part in the train order process. The railway uses platform level and step down facilities for passenger access to trains</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Activities include:</p> <ul style="list-style-type: none"> • Arranging for passenger accommodation to be unlocked/locked; • Supervising car captains who look after passengers in individual carriages; • Carrying out the car captain role at times; • Ensuring carriages are clean internally before and after train journeys; • Supervising and assisting with passenger loading/unloading, ensuring that platform cross over, or step down stools are in place or stowed; • Making public address announcements before and after journeys, as circumstances dictate; • Unlocking/locking toilets at intermediate stations and ensuring passengers are not left in these facilities; • Communicating with Station Master or ticket office to ascertain status of any last minute passengers; • Indicating to guard when all passengers are aboard and cross over ramps/ step down stools are stowed; • Inspecting tickets for revenue protection during journey where facilities allow for passage through the train; • In an emergency, attending to the needs of passengers and supervising car captains with this procedure. <p>Working conditions</p> <ul style="list-style-type: none"> • Generally works in a station yard environment, or on maintained surfaces suitable for passengers; • In an emergency situation, may be required to move around on uncertain terrain; • Generally daylight work, but will entail some night operations. 	<p>HEALTH ATTRIBUTES:</p> <p>Health attributes relating to the safety of the rail system:</p> <p>NONE</p> <p>Health attributes relating to the safety of the rail worker:</p> <p>NONE</p>
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>The conductor occupies the same environment on and off the train as the passengers</p>	

Example: Train supervisor / Head Conductor (cont)**RISK ANALYSIS AND CATEGORISATION:**

**Not SCW
Not ATTP
Category 4**

The Train Supervisor task not *safety critical* because:

Incapacity of the conductor prior to departure, or on journey completion will not compromise the network, as the relevant train is already stationary by the action of others, and failure by the conductor to give a signal prevents further movement action by the safeworking staff.

Although conductors perform some passenger safety supervisory functions they do so by enforcing or policing behaviour where the basic control is provided by other means (eg Driver/fireman/Guard lookout during train movements, signage, fencing, etc).

The role is not critical to the safety of the line and they are not located on or about the track other than incidentally in a controlled environment. Therefore no medical assessment is required.

HEALTH ASSESSMENT REQUIREMENTS:

No health assessment requirements other than OHS requirements

3.4 Example: Track Labourer

TASK: TRACK LABOURER	
CONTEXT: The organisation operates on weekends, public holidays, during the main school holidays and at Christmas and Easter. Train operate over a 15km track and the operations are in accordance with Australian Tourist and Heritage Railway Rules and General Instructions. Diesel locomotives and steam trains are used.	
ACTIVITIES AND WORKING CONDITIONS: Activities Track labourers travel to/from work sites by rail or road and work in teams under the supervision of a Road Foreman or Ganger. They used power tools for clearing and cutting as well as hand tools. Working conditions Trains operate at low speeds, and are infrequent in operation.	HEALTH ATTRIBUTES: Health attributes relating to the safety of the rail system: NONE Health attributes relating to the safety of the rail worker: When working in an uncontrolled environment: <ul style="list-style-type: none"> • The ability to integrate visual, sound and vibration cues in order to detect an oncoming train; • The physical mobility to move quickly out of the road of an approaching train; • The ability to see warning lights and hear warning sirens in order to detect moving plant and equipment; • Good visual fields to see out of the corners of the eyes, as well as far-distance (rather than reading-distance) sight to see train movement; • The ability to work at all times of day and night in all types of weather and ground conditions – especially walking distances on ballast.
ENGINEERING AND PROCEDURAL ENVIRONMENT: Track labourers receive a 'Rail Safety Brief' before commencement. Labourers may work in Controlled or Uncontrolled Environments. A Controlled Environment is one in which the workers are protected from moving trains by lockout systems, exclusion of trains from the track (eg non-train days) or similar. When working in an uncontrolled environment staff are protected at both ends of the work area by flag persons, speed restrictions and advisory boards on operating days. General safety systems and procedures include: <ul style="list-style-type: none"> • A Staff and Ticket system to control all trains and trolleys; • Operation of all locomotives by a crew of two qualified persons; • Radio contact with on board staff. 	
RISK ANALYSIS AND CATEGORISATION:	Not SCW Category 3 or 4 depending on Controlled Environment
The task of Track Labourer is NOT Safety Critical because the activities and the health of the labourers do not impact on the safety of the rail system. If the track labourer works within a Controlled Environment, such as that established by total occupancy of the track or other suitable systems to exclude trains from the area, the worker is categorised Category 4. Those working in an Uncontrolled Environment, are categorised Category 3.	

Example: Track Labourer (cont)**HEALTH ASSESSMENT REQUIREMENTS:**

Track Safety Assessment (if Category 3)

No assessment (if Category 4)

All workers require relevant OHS assessments.

4. EXAMPLES FROM HISTORICAL TRAM OPERATIONS

The operation of historical trams varies and this may affect the risk assessment.

In some cases the tram route is along main roads but others are on private land and the public may not have access.

Further important considerations with respect to safety include whether the vehicle has a deadman's handle or

vigilance system and whether the driver operates alone in the cab of the tram.

Members of historical tram societies may visit and work at other societies with different routes and rolling stock.

Therefore medical standards need to be sufficient to be portable or a restriction may be applied to working on a specific tramway or type of tram.

4.1 Example: Driving of Historical Trams

TASK: DRIVING OF HISTORICAL TRAMS ON A MAIN ROAD	
<p>CONTEXT:</p> <p>The organisation operates trams over a 4.2 kilometre route every day (except Christmas Day) along city streets in a regional centre. It runs on a mixture of single and double track. The tours operate at least hourly.</p> <p>Over 120,000 passengers are carried annually in the one-person operated electric trams moving at up to 50 km/hour. About 8 vehicles from a fleet of 38 (dating from between the early 1900s and the 1950's) are used on a regular basis and only a few have a dead-man handle/pedal or other vigilance system. There are about six regular drivers and 30 others who typically drive about one weekend every 3 months. The operation is conducted using a mixture of paid and volunteer staff.</p>	
<p>ACTIVITIES AND WORKING CONDITIONS:</p> <p>Drivers are solo in the cab; sometimes there may be a conductor on the tram. The tram is operated by moving the controller handle for power as well as a brake handle.</p> <p>Trams move up to 50km/h along main streets with traffic and pedestrians.</p>	<p>HEALTH ATTRIBUTES:</p> <p><i>Health attributes relating to the safety of the rail system:</i></p> <ul style="list-style-type: none"> • Good physical and psychological health to maintain vigilance when driving to protect the safety of the rail system; • Adequate level of fitness and dexterity to enable the driver be able to get out onto the road, in the case of an emergency; • Adequate visual acuity and visual fields to ensure safe operation of the tram. <p><i>Health attributes relating to the safety of the worker:</i></p> <p>Covered above.</p>
<p>ENGINEERING AND PROCEDURAL ENVIRONMENT:</p> <p>The risk assessment and health assessment may need to be on a tram by tram basis.</p> <p>The W class trams have no deadman's handle/pedal or other vigilance system. In the event of sudden incapacity the tram would continue at the speed set by the controller until the end of the line placing passengers and perhaps pedestrians at risk.</p> <p>By contrast the Birney class tram (1923) has a deadman's handle which when activated cuts the power and applies the brakes.</p>	

Example: Driving of Historical Trams (cont)

RISK ANALYSIS AND CATEGORISATION:

**High Level SCW
(Category 1)**

**or SCW (Category 2)
depending on engineering
controls**

Where the tram operates on a public roadway and there is not a deadman's handle or there is not an additional person present who is capable of monitoring and stopping the tram the job is **Safety Critical at a High Level** to protect the safety of the tram network.

Where an approved deadman's handle system has been installed on all trams driven on a regular basis or where a second person is present who is capable of monitoring and stopping the tram the task would be classified SCW Category 2, reflecting the reduced risk.

Where two persons are responsible for the safety of the tram they both must receive a Safety Critical Worker Health Assessment as for SCW (Category 2).

HEALTH ASSESSMENT REQUIREMENTS:

High Level Safety Critical Worker Health Assessment or Safety Critical Worker Health Assessment depending on the highest risk of tram in service.

No colour vision requirements.

All workers will require relevant OHS assessments.

GLOSSARY OF TERMS

1. **Accredited Rail Organisation** means a rail organisation accredited as defined in the jurisdiction's relevant rail safety legislation as a Manager of Infrastructure and/or Provider of Rolling Stock and/or Operator of Rolling Stock.
2. **Authorised Health Professional** means a health professional typically with a qualification in medicine or in nursing with a post graduate qualification in occupational health nursing, who has been selected by accredited rail organisations, on the basis of their compliance with the specified selection criteria, to perform rail safety worker health assessments.
3. **Around the Track Personnel (ATTP)** means persons required to work on a railway where any aspect of the task they are undertaking is "on or near the track" as defined in 14. ATTP excludes any rail safety worker who is classified as a Safety Critical Worker.
4. **Civil Infrastructure** means track formation and drainage (but excluding track), fixed structures beside, over or under the track, including supports for overhead electric traction equipment, supports for signalling and telecommunications equipment but excluding those equipments.
5. **Competence** means the possession of skills and knowledge and the application of them to the standards required in employment.
6. **Contractor** means a person who is engaged by or on behalf of any body that has been accredited under a jurisdiction's rail safety legislation to provide goods or services to such a body.
7. **Controlled Environment** means a rail workplace where a risk assessment has been performed to identify hazards and implement controls to ensure that any person working in or transiting the area is not placed at risk from moving trains.
8. **Electric Traction Infrastructure** means equipment and systems associated with the supply and reticulation of electricity for traction purposes, but excluding elements of civil infrastructure supporting or otherwise associated with the equipment or systems.
9. **Employer** means an accredited rail organisation that engages a rail safety worker, either as a paid worker or volunteer.
10. **Ensure** means to take all reasonable action insofar as controllable factors will allow.
11. **Interstate System** means any railway system, or part thereof, designated by its owner as a route to be used for the movement of interstate traffic.
12. **Mainline** means the line normally used for running trains through and between locations.
13. **May** indicates the existence of an option.
14. **On or Near the Track** means three (3) metres from the edge of the closest rail when measured horizontally and at any level above or below the rail when measured vertically, unless in a position of safety.
15. **Operator** means the person or body responsible by reason of ownership, control or management, for the provision, maintenance or operation of trains, or a combination of these; or a person or body acting on its behalf.
16. **Organisation** means an owner or an operator or a person or a body that is both owner and operator.
17. **Owner** means the person or body responsible by reason of ownership, control or management, for the construction and maintenance of track, civil and electric traction

- infrastructure or the construction, operation or maintenance of train control and communication systems, or a combination of these, or a person or body acting on its behalf.
- 18. Rail Network** means a system of railways whether interconnected or not.
- 19. Rail Safety Worker** is a worker undertaking rail safety work as defined in a jurisdiction's rail safety legislation and for this Standard includes an employee, contractor, subcontractor or volunteer performing work on a railway or tramway system:
- as a driver, second person, trainee driver, guard, conductor, supervisor, observer or authorised officer;
 - as a signal operator, shunter or person who performs other work relating to the movement of trains or trams;
 - in repairs, maintenance, or upgrade of railway infrastructure, including for rolling stock or associated works or equipment;
 - in construction or as a look out for construction or maintenance;
 - any other work that may be included by regulation.
- 20. Railway** means a guided system designed for the movement of rolling stock which has the capability of transporting passengers, freight or both on a track together with its infrastructure and associated sidings. This includes a heavy railway, a light railway, an inclined railway or a tramway, having a nominal gauge in each case not less than 600mm, but excludes crane type runways and slipways.
- 21. Risk** means the combination of the frequency or probability of occurrence and the consequences of a specified hazardous event.
- 22. Risk Analysis** means a systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
- 23. Risk Assessment** means the overall process of risk analysis and risk evaluation.
- 24. Risk Control** means the process of decision making which involves the implementation of physical changes, standards, policies and/or procedures for eliminating, reducing and/or managing risk.
- 25. Risk Management** means the systematic application of management policies, procedures and practices to the tasks of analysing, evaluating and controlling risk.
- 26. Rolling Stock** means any vehicle that operates on or uses a railway track, excluding a vehicle designed for both on- and off-track use when not operating on the track.
- 27. Running Line** means any line used for the through operation of trains inclusive of mainlines, branch lines, crossing loops and shunting yards.
- 28. Safety Critical Worker** means a worker whose action or inaction, due to ill health, may lead directly to a serious incident affecting the public or the rail network.
- 29. Serious Incident** for the purposes of this Standard means an accident or incident that affects the public or the network resulting in:
- the death of a person;
 - incapacitating injury to a person;
 - a collision or a derailment involving rolling stock that results in significant damage;
 - any other occurrence which results in significant property damage.
- 30. Shall** is to be understood as mandatory.
- 31. Should** is to be understood as non-mandatory, that is, advisory or recommended.

- 32. Signalling and Telecommunications Infrastructure** means signalling equipment and telecommunication equipment provided and used as part of the safe working and operating systems of the railway but excluding supports for such equipment.
- 33. Track** means the combination of rails, rail connectors, sleepers, ballast, points and crossing and substitute devices where used.
- 34. Train** means one unit of rolling stock or two or more units coupled, at least one of which is a locomotive or other self-propelled unit.
- 35. Tram** means a vehicle that runs on rails on a highway, road or easement specifically designated for use by a tram or light rail vehicle and includes a light rail vehicle.
- 36. Worker** means a rail safety worker as defined in Definition 19.

COMMENTS AND/OR INQUIRIES

The National Transport Commission invites comments on and/or and inquires about the Guideline for Health Risk Management.

Comments and/or inquiries should be directed to the address shown below.

National Transport Commission
Level 15/628 Bourke Street
MELBOURNE VIC 3000

Email: ntc@ntc.gov.au

ACKNOWLEDGEMENTS

The National Road Transport Commission thanks the Victorian Department of Infrastructure for providing as the basis for the draft National Standard for Health Assessment of Rail Safety Workers, the Victorian draft Code of Practice for Health Assessment and Certification of Rail Safety Workers.

The Project Team responsible for researching and developing the draft National Standard was:

Jan Powning	National Project Manager and Manager Safety Policy and Planning, DOI Victoria
Dr Bruce Hocking	FAFOM. FAFPHM. FRACGP. Occupational Physician
Fiona Landgren	Principal Consultant, Communicating for Health
Keith Wheatley	Project Manager, NRTC

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Rob Burrows	Director, Office of Rail Safety, Department of Planning and Infrastructure
Brian Busch	Manager Safety, Australian Rail Track Corporation
Alex Claassens	Assistant National Secretary, Rail Tram and Bus Union (Locomotive Division)
Dr Michael Couch	Occupational Physician, NSW
Kent Donaldson	Executive Director Transport Safety and Rail Safety Regulation, Ministry of Transport NSW
Dr Tim Drew	Chief Medical Consultant to TransAdelaide
David Edwards	Executive Manager Safety, Pacific National
Greg Ford	Director Rail Safety, Queensland Transport
Dr John Glastonbury	Executive Member, Heritage Rail Australia (NSW) and Chairman 3801 Limited
Allan Gordon	Superintendent Safeworking and Training, Pilbara Rail
Ian Grenfell	President, Tasmanian Association of Tourist Railways
Catherine Herriman	Assistant Director Safety Strategy, Ministry of Transport
Bryan Homann	Council of Historic Railways and Tramways South Australia and Pichi Richi Railway
Caroline Hudson	National Manager Human Resources, Australian Railroad Group
Andrew Killingworth	Rail Transport Museum, (Tourist and Heritage Rail) NSW
Dr Andrew Marsden	Chief Medical Consultant to Westrail
Marnie O'Brien	Manager Injury Management Centre, Rail Infrastructure Corporation
Dr Graeme Peel	Occupational Physician, QANTAS
Adrian Ponton	Manager System Safety, Freight Australia
Philippa Rogers	Secretary, Association of Rail Preservation Groups of WA Inc
Dr Paul Rollason	President, Association of Tourist Railways Queensland
John Shalders	Code of Practice Manager, Australasian Rail Association

Graeme Silvester	Manager Safety Systems and Accreditation, Queensland Rail
Dr Tim Stewart	Medical Advisor to TasRail
Craig Tooke	Executive Officer, Council of Tramway Museums Australasia
Dr Stuart Turnbull	Medical Practitioner Occupational Medicine, Bayside Trains

TENDERS

Department of Commerce

SUPPLIES AND SERVICES FOR THE PUBLIC SERVICE

Information in relation to the Department of Commerce proposed, current and awarded tenders is available on:

<http://www.tenders.nsw.gov.au>

PRIVATE ADVERTISEMENTS

COUNCIL NOTICES

BAULKHAM HILLS SHIRE COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice Of Compulsory Acquisition Of Land

THE Baulkham Hills Shire Council declares, with the approval of Her Excellency the Governor, that the land described in the Schedule below, excluding mines and deposits of minerals within the land, is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of a public reserve. Dated at Castle Hill this 19th day of April 2004. D. MEAD, General Manager.

SCHEDULE

Lot 101, DP 1042686. [0289]

BELLINGEN SHIRE COUNCIL

Roads (General) Regulation 2000

Naming of Roads

NOTICE is hereby given that Council has pursuant to section 162 of the Roads Act 1993, named those sections of road as described hereunder:

- Two (2) unnamed cul-de-sacs off Jagera Drive in the McCristal Estate: Darlingia Place and Hilliana Close
- unnamed lane of Dowle Street: Red Ledge Lane.

Authorised by a Council Resolution of 20 April 2004. P. J. DOYLE, General Manager, Bellingen Shire Council, PO Box 117, Bellingen NSW 2450. [0281]

BLACKTOWN CITY COUNCIL

Roads Act 1993, Section 162

Naming of Public Road – Mossfield Lane

NOTICE is hereby given that Blacktown City Council, in pursuance of section 162 of the Roads Act, 1993, has named the unnamed lane which runs between Daraya Road and Crudge Road, Marayong, as "Mossfield Lane". Authorised by resolution of Council on 10 December 2003. IAN REYNOLDS, General Manager, Blacktown City Council, PO Box 63, Blacktown NSW 2148. [0291]

BOOROWA SHIRE COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

THE Boorowa Shire Council declares, with the approval of Her Excellency the Governor, that the land described in the Schedule below, excluding mines and deposits of minerals within the land, is acquired by compulsory process in accordance with the provisions of the Land Acquisition

(Just Terms Compensation) Act 1991 for the purpose of extensions to Council Chambers. Date at Boorowa this 19th day of December 2003. DAVID PHILPOTT, General Manager, Boorowa Shire Council,

SCHEDULE

Lot 11 in Deposited Plan 1055372. [0279]

CABONNE COUNCIL

Re-naming of Roads

NOTICE is hereby given that Cabonne Council, in pursuance of section 162 of the Roads Act, 1993 has renamed the roads described hereunder:

<i>Description of Road</i>	<i>New Name</i>
Boomey Road and the east-west portion of Starrs Road	Boomey School Road
Road commencing at Main Road 234 at Yullundry then generally north to Wellington LGA boundary	Bournewood Church Road
commencing at Gundong Road west of Yarooga Road then generally south then east to Wandong Road	Greenbah Creek Road
Tomingley Road (from Obley to Cabonne/Narromine LGA boundary)	Gundong Road
Dubbo-Yeoval Road (from Yeoval to Cabonne/Dubbo LGA boundary)	Obley Road
the road commencing in Wellington LGA from Renshaw-McGirr Way then generally west to Lot 24 DP 753243	Noonameena Road
commencing from Renshaw-McGirr Way north-east of Yarooga Road then generally north-east to Lot 4 DP 753254	Broadwater Road
commencing at Gundong Road near Gullengamble Road then generally south to Greenbah Creek Road	Belmore Road
Manildra-Toogong Road	Yellowbox Road
Balcombs Lane	Rutherford Lane
commencing at Main Road 237 west of Canowindra then generally north to Pauls Lane	Leneva Lane
Eugowra-Gooloogong Road	Casuarina Drive
commencing at Casuarina Drive then generally west to Lot 64 DP 750175	Nandandera Road
commencing at Escort Way west of Heifer Station Creek then generally south then west to Underwood Road	Caldwell Lane

<i>Description of Road</i>	<i>New Name</i>	
Cullya Lane	Culverson Road	delegated to it by the Roads and Traffic Authority of NSW it proposes to impose a maximum load limit of ten (10) tonnes (GVM) on the length of:
commencing from the Orange/ Cabonne LGA boundary then generally east then north to Byng Road	Favell Road	
commencing at Nixon Road then generally east to Lot 241 DP 750387	Townsend Road	

Authorised by resolution of Council on 15 March 2004.
G. L. P. FLEMING, General Manager, Cabonne Council,
PO Box 17, MOLONG. NSW 2866. [0290]

GRIFFITH CITY COUNCIL

Local Government Act 1993, Section 553 (a)

Extension of Water Mains

NOTICE is given pursuant to section 553 (a) of the Local Government Act 1993, as amended, that the water mains have been extended and the land served is described in the accompanying Schedule. Land which is not connected thereto shall become liable to water supply charges after twenty-one (21) days from the date of this notice. Land connected before the expiration of the twenty-one days shall be charged to that Water Access Fee from the date of connection. ANDREW CRACKANTHORP, Acting General Manager, PO Box 485, Griffith, NSW 2680.

SCHEDULE

Lots 1 to 66 (inclusive) of DP 1063408 [0292]

GRIFFITH CITY COUNCIL

Local Government Act 1993, Section 553 (b)

Extension of Sewer Mains

NOTICE is given pursuant to section 553 (b) of the Local Government Act 1993, as amended, that the sewer mains have been extended and the land served is described in the accompanying Schedule. Land which is not connected thereto shall become liable to a Sewerage Special Rate after sixty (60) days from the date of this notice. Land connected before the expiration of the sixty days shall be charged to that Sewerage Special Rate from the date of connection. ANDREW CRACKANTHORP, Acting General Manager, PO Box 485, Griffith, NSW 2680.

SCHEDULE

Lots 1 to 66 (inclusive) of DP 1063408. [0293]



LANE COVE COUNCIL

Light Traffic Thoroughfare

River Road West/bridge Street/Penrose Street

THE Council hereby advises that pursuant to section 112 of the Roads Act 1993 and in accordance with the authority

It should be noted that those load limits do not apply to buses or commercial vehicles in excess of the load limit;

- (a) Wishing to gain access to properties in the streets defined above; and
- (b) Must use the street and there being no other street to gain access to the desired street.

A period of 28 days from the date of this notice is allowed for persons to lodge a written objection to the proposal to impose the load limits. Further information to the proposal can be gained by viewing the proposal and relevant reports on deposit at the following locations:

- Lane Cove Council Chambers; 48 Longueville Road, Lane Cove.
- Lane Cove Public Library; Cnr Longueville Road and Austin Street, Lane Cove.

Telephone enquiries should be directed to Council's Traffic Manager on 9911-3581. [0294]

MIDCOAST COUNTY COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

THE MidCoast County Council declares, with the approval of Her Excellency the Governor, that the land described in the Schedule below, excluding mines and deposits of minerals within the land, is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purpose of access to a sewerage treatment plant. Date at Taree this 16th day of January 2004. NEIL HANINGTON, General Manager

SCHEDULE

Lot 1 in Deposited Plan 1007628. [0277]

TUMBARUMBA SHIRE COUNCIL

Roads Act 1993, Section 162

Naming of Public Roads – Wagga Road

NOTICE is hereby given that the Tumbarumba Shire Council has, pursuant to section 162 (1) of the Roads Act 1993, named the Road as follows:

Location

Previously known as Kyeamba Street, Levis Street and Glenroy Street, Rosewood will now be a continuation of the Wagga Road.

Name

WAGGA ROAD

notice by writing to the General Manager, Tweed Shire Council, PO Box 816, Murwillumbah, NSW, 2484 and quoting File No. GS5/1 Pt 3. [0287]

PETER BASCOMB, General Manager, Tumbarumba Shire Council, PO Box 61, Tumbarumba, NSW, 2653. [0282]

SHOALHAVEN CITY COUNCIL

Roads Act 1993, Section 10

Dedication of Land as Public Road

NOTICE is hereby given that the Council of the City of Shoalhaven at its meeting of 19 December 1995, Minute No. 3220, resolved to acquire land for road widening in connection with the St Georges Basin By-Pass. The land as described in the Schedule below has been acquired and is hereby dedicated as Council Public Road pursuant to section 10 of the Roads Act 1993. R. PIGG, General Manager, Shoalhaven City Council, Bridge Road, Nowra (PO Box 42) NSW 2541. File 95/1997, 1855-03.

SCHEDULE

Lots 1, 2, 3, 4, 5, 6, 7 in Deposited Plan 855413; Lots 2, 4, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 in Deposited Plan 860012; and Lot 1 in Deposited Plan 863267, Parish of Wandrawandian, County of St Vincent. [0295]

TWEED SHIRE COUNCIL

Roads Act 1993

Renaming of Public Roads

NOTICE is hereby given that the Tweed Shire Council, in pursuance of section 162 of the Roads Act 1993, has renamed the following roads which were created in a plan of subdivision at Pottsville:

<i>Current names:</i>	<i>To be re-named as:</i>
Robina Drive	Hovea Drive
Hollyhock Court	Hibbertia Court
Bluebell Avenue	Euodia Avenue
Frangipani Close	Endiandra Close

Authorised by resolution of the Council on 28 April, 2004. J. F. GRIFFIN, General Manager, Tweed Shire Council, Civic Centre, Tumbulgum Road, Murwillumbah, NSW, 2484. [0286]

TWEED SHIRE COUNCIL

Roads Act 1993

Renaming of Public Road

NOTICE is hereby given that the Tweed Shire Council, in pursuance of section 162 of the Roads Act 1993, proposes to rename the following road which was created in a plan of subdivision at Pottsville:

<i>Current names:</i>	<i>To be re-named as:</i>
Lomanda Avenue	Lomandra Avenue

Submissions or objections to the proposal may be made within one month from the date of publication of this

TWEED SHIRE COUNCIL

Roads Act 1993

Naming of Public Road

NOTICE is hereby given that the Tweed Shire Council, in pursuance of section 162 of the Roads Act 1993, has named a strip of road variable width south of Lot 2, DP 700873 and Lot 2, DP 881169 and that part of the road that intersects with Scenic Drive as

Birds Bay Drive



Authorised by resolution of the Council on 28 April, 2004. J F GRIFFIN, General Manager, Tweed Shire Council, Civic Centre, Tumbulgum Road, Murwillumbah, NSW, 2484. [0288]

WAVERLEY COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

WAVERLEY COUNCIL declares, with the approval of Her Excellency the Governor that the land described in the schedule below, excluding mines and minerals in the lands, are acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purpose of the construction of a coastal walkway. Dated at Bondi this Thirtieth day of April 2004. KIM ANSON, General Manager, Waverley Council

SCHEDULE

Lot 1 DP 1056298. [0278]

ERRATUM**COOLAH SHIRE COUNCIL**

IN the notification published in the *Government Gazette* dated 15 November 2002, Folio 9769, was incorrectly published and it should not be published. Ministers consent had not been obtained prior to the publication. The council request a retraction of the gazettal notice. [0296]

ESTATE NOTICES

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of ERNEST FREDERICK ELLIS, late of 9 Lancaster Crescent, Kingsford in the State of New South Wales, retired police officer, who died on 2 September 2003, must send particulars of his claim to the executors, Stephen William Ellis and Judith Anne Hogan, c.o. Steve Masselos & Co., Solicitors, PO Box A988, Sydney South, 1235 within one (1) month from publication of this notice. After that time the executors may distribute the assets of the estate having regard only to the claims of which at the time of distribution they have notice. Probate was granted in New South Wales on date as number 104986/04. STEVE MASSELO & Co., A Solicitor Corporation, 2nd Floor, 114-120 Castlereagh Street, Sydney, 2000 (PO Box A988), Sydney South NSW 1235 (DX305, Sydney), tel.: (02) 9264 7022. [0284]

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of MARY LAUREL FORBES, late of Cremorne, in the State of New South Wales, widow, who died on 23 February 2004, must send particulars of the claim to the executor, Francis Mervyn Deane, c.o. Frank M. Deane & Co., (in association with Adams Raves Marsh & Co.), Solicitors, Level 9, 227 Elizabeth Street, Sydney, within one calendar month from publication of this notice. After that time, the assets of the estate will be distributed having regard only to the claims of which at the time of distribution the executor has notice. Probate was granted in New South Wales on 20 April 2004. FRANCIS MERVYN DEANE, c.o. Frank M. Deane & Co., Solicitors, Level 9, 227 Elizabeth Street, Sydney NSW 2000 (DX 1179 Sydney), tel.: (02) 9264 3066. [0297]

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of PAUL MELVIN TURNER, late of Neutral Bay, in the State of New South Wales, retired company director, who died on 20 November 2003, must send particulars of the claim to the executors, Karen Marie Turner and Kenneth Smith, c.o. Bennett Stewart & Shirvington, Solicitor, within one calendar month from publication of this notice. After that time, the executors may distribute the assets of the estate having regard only to the claims of which at the time of distribution they have notice. Probate was granted in New South Wales on 23 April 2004. BENNETT STEWART & SHIRVINGTON, Solicitors, Level 1, 1 York Street, Sydney NSW 2000, tel.: (02) 9247 5563. [0298]

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of AMY JEAN CHAPMAN, late of 83 Kookora Street, Griffith, in the State of New South Wales, widow, who died on 12 March 2004, must send particulars of the claim to the executors, Margaret Jean Roberts and Bernard George Chapman, c.o. Messrs Olliffe & McRae, Solicitor, within one calendar month from publication of this notice. After that time, the executors may distribute the assets of the estate having regard only to the claims of which at the time of distribution they have notice. Probate was granted in New South Wales on 16 April 2004. Olliffe & McRae, Solicitors, PO Box 874, Griffith NSW 2680, tel.: (02) 6962 1744. [0299]

COMPANY NOTICES

NOTICE of application relating to CANTERBURY SEED TRADING PTY. LIMITED A.C.N. 095 244 447.—The Overflow Pastoral Co Pty. Limited A.C.N. 000 205 854 will apply to the Federal Court of Australia at 9.15 am., on the 7 May 2004 at Queens Square, Sydney for an order that Canterbury Seed Trading Pty. Limited A.C.N. 095 244 447, be wound up in insolvency under section 459A of the Corporations Law and for an order that Canterbury Seed Trading Pty. Limited, A.C.N. 095 244 447, be wound up on the ground that it is just and equitable that it be wound up under section 461 of the Corporations Law. Any person intending to appear at the hearing must file a Notice of Appearance in the prescribed form and serve that notice on the applicant at the applicant's address for service shown below not later than two (2) days before that date. DOUGLASS JAMES SUTTON MCKAY, Solicitor for the Plaintiff, Lovett & Green, 91 Dubbo Street, Warren, New South Wales NSW 2824. [0283]

NOTICE of application for winding up order in the Supreme Court of New South Wales No. 2422 of 2004.—POBJIE AGENCIES PTY LIMITED, A.C.N. 000 859 405.—(1) A proceeding for the winding up of Pobjie Agencies Pty Limited was commenced by the plaintiff, HELEN LINDLEY, on 15 April 2004 and will be heard by the Supreme Court of New South Wales at Law Courts Building, Queens Square, Sydney, at 11.00 a.m. on 17 May 2004. Copies of documents filed may be obtained from the plaintiff's address for service. (2) The plaintiff's address for service is c.o. Lang Gellert & Noonan, Solicitors, Level 1, 9-13 Bronte Road, Bondi Junction NSW 2022 (DX 12011, Bondi Junction), tel.: (02) 9389 8011. (3) Any person intending to appear at the hearing must file a notice of appearance in accordance with the prescribed form, together with any affidavit on which the person intends to rely, and serve a copy of the notice and any affidavit on the plaintiff at least 3 days before the date fixed for the hearing. Dated 4 May 2004. Name of plaintiff or plaintiff's legal practitioner: BEN NOONAN. [0300]

NOTICE of members' voluntary liquidation.—WILSON'S WYOMING PTY LIMITED (In liquidation), A.C.N. 001 815 925.—At a general meeting of the above named company, duly convened and held at 17 Rodd Street, Canowindra NSW 2804, on 27 April 2004, the following special resolution was passed: "That the company be wound up as a members' voluntary liquidation and that the assets of the company be distributed in whole or part to the members in specie should the liquidator so desire." Dated this 27th day of April 2004. WILLIAM MICHAEL MURPHY, Chartered Accountant, 103 Kendal Street, Cowra NSW 2794, tel.: (02) 6342 1311. [0301]

NOTICE of liquidation.—TIRRANA HOLDINGS PTY LIMITED, A.C.N. 000 417 283 (In liquidation) and in the matter of the Corporation Law, the creditors of the abovenamed company are required on or before 18 May 2004 to prove their debts or any claims and to establish any title they may have to priority by delivering or sending through the post to the liquidator at the undermentioned address an affidavit verifying their respective debts or claims. In default they will be excluded from the benefits of any distribution made before such debts or claims are

proved or such priority is established and from objecting to any such distribution. Form of proof may be obtained from the liquidator at the address shown below. Dated this 29 April 2004. E. M. COWLEY, Liquidator, Suite 3/11 West Street, North Sydney NSW 2060. [0302]

NOTICE of members' voluntary winding up, Corporation Act 2001.—ERNITH PTY LIMITED (In liquidation), A.C.N. 000 083 778.—At an extraordinary general meeting of Ernith Pty Limited.—Member's voluntary, held on 27 April 2004, the company's members resolved to wind up the company voluntarily and to appoint Colin Wilson, Chartered Accountant, of Wilson Porter Services Pty, Chartered Accountants, 154 Elizabeth Street, Sydney, as liquidator of the company. After 21 days from today I will begin distributing the company's assets. All creditors who claim against the company should give me details of their claims by that date, otherwise I will not recognise their claims when I distribute the assets. COLIN WILSON, Liquidator, c.o. Wilson Services Pty Limited, Chartered Accountants (DX 11544 Sydney Downtown), tel.: (02) 9283 4333. [0303]

OTHER NOTICES

NOTICE of dissolution of partnership — GELTROV PTY LIMITED A.B.N. 84 003 787 308, and ANNACOSZ PTY LIMITED A.B.N. 18 052 203 077.—Notice is given that the partnership previously subsisting between Geltrov Pty Limited A.B.N. 84 003 787 308, Annacoz Pty Limited A.B.N. 18 052 203 077 as trustee for the Elton Trust and Del Coronado Pty Limited ACN 107 781 617 as trustee for the Sunrise Trust, as agent for ABN Amro Morgans Limited A.C.N. 010 669 726 under the business name ABN Amro Morgans Newcastle, was dissolved on 29 February 2004. [0280]

ERRATUM

THE HYDRO ALUMINIUM KURRI KURRI HOLDINGS.—Partnership Act 1892 (NSW).—A Limited Partnership notice published in the *Government Gazette* No. 75, dated 23 April 2004, Folio 2206, should not have appeared. This erratum amends that error. [0285]

