

***GUIDELINES TO ELECTRICITY SAFETY
(NETWORK ASSETS) REGULATIONS 1999
(PART 1,2 and 3)***

21 March 2001

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INTRODUCTION

Under the auspices of the Office of the Chief Electrical Inspector, Victoria, a committee, which comprised of representatives from electricity distribution, transmission and generation companies and railway and tramway companies, prepared these Guidelines to assist network operators in complying with the Electricity Safety (Network Assets) Regulations 1999.

The prime purpose of the Guidelines is to provide further clarification to certain regulatory requirements protecting persons from risk, and property from damage, associated with network assets.

The Guidelines also assist the fire control authority and other electricity suppliers in complying with the requirements relating to the reporting of electrical incidents.

The Guidelines do not, in general, duplicate regulatory requirements and, therefore, the information in the Guidelines must be read in conjunction with the Regulations and the Electricity Safety Act 1998. Any departure from regulatory requirements is only permitted under an exemption granted by the Office.

PART 1 – PRELIMINARY

Regulation 1 Objectives: requires no clarification

Regulation 2 Authorising provisions: requires no clarification

Regulation 3 Commencement: requires no clarification

Regulation 4 Revocation: requires no clarification

Regulation 5 Definitions

For the purpose of these Regulations, the Office uses the following interpretations —

“carriageway” is the part of a road’s surface on which vehicles travel. The following diagrams are used for illustrative purposes –

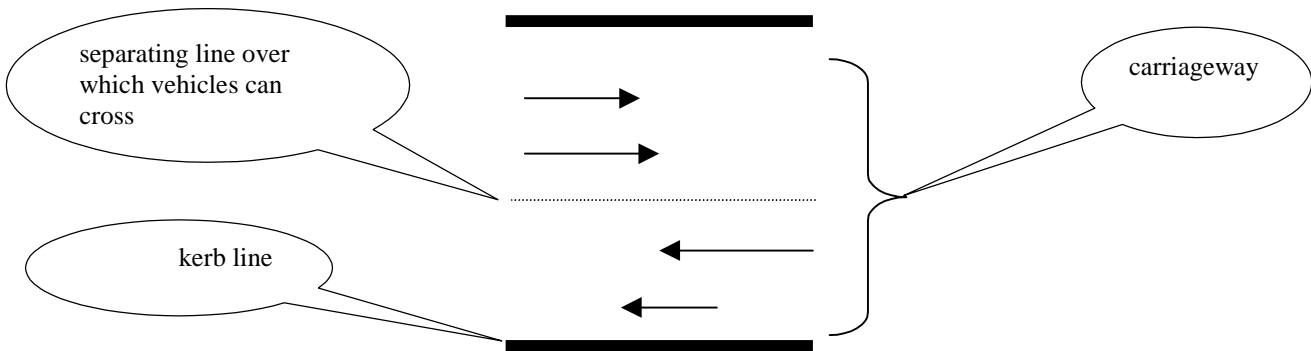


Figure 1: Normal road where there is no physical obstruction to traffic crossing the lane markings.

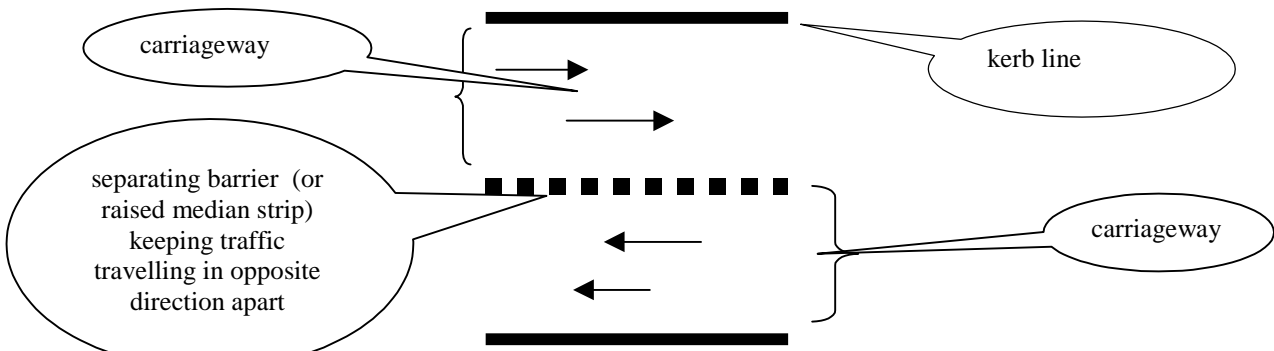


Figure 2: Road on which traffic travelling in opposite directions is separated by a physical obstruction that must not be driven over (ie, does not include painted median or lines).

“**earthing system**” is a system designed to directly electrically connect the conductors and/or metalwork of electrical network assets to the general mass of earth so as to ensure and maintain the effective dissipation of electrical energy;

“**network asset**” means any asset that is owned or operated by a network operator for the purposes of –

- (a) generating, transmitting, distributing or supplying electricity of the network operator; or
- (b) operating a railway or tramway system;

“**network operator**” means a person who owns or operates—

- (a) an upstream network; or
- (b) a railway or tramway system;

“**Neutral & Supply Tester**” means an instrument designed and constructed for the purpose of proving a network operator's neutral to earth impedance path is not more than one (1) ohm—

- (a) produced by the Victorian network operators; or
- (b) accepted by the Office;

“**supply network**” means a network consisting of electric lines, generators, substations, circuits and any other thing required for the purposes of the generation, transmission, distribution or supply of electricity;

“**the Office**” is the Office of the Chief Electrical Inspector established under the Electricity Safety Act 1998;

“**the Regulations**” are the Electricity Safety (Network Assets) Regulations 1999;

“**U**” is nominal voltage;

“**U >**” is a nominal voltage greater than the given figure;

“**U <**” is a nominal voltage less than the given figure;

“**U ≥**” is a nominal voltage greater than or equal to the given figure;

“**U ≤**” is a nominal voltage less than or equal to the given figure;

“**upstream network**” means the part of a supply network that is upstream of the point of supply in relation to electric lines forming part of that supply network.

Regulation 6 Exemptions

The purpose of the Electricity Safety (Network Assets) Regulations 1999 is to protect persons from risk, and property from damage, associated with network assets.

In some instances, the Regulations may slow the development of new technology or slow other actions that are desirable and safe but must be addressed from a regulatory compliance perspective.

A person may apply, to the Office, in writing under the Regulations to seek exemption from any specific requirement of the Regulations.

Before applying for an exemption, the applicant should ensure that they have considered practical alternatives and can demonstrate adequately that their proposal for exemption is justifiable.

The application must include the reasons why the exemption is sought. This should include all the justifications including costs, technical calculations and supporting information of both complying with the Regulations and alternatively if exempted from the Regulations.

Whilst regulation 6(2)(b) only requires a statement from the applicant as to whether or not the exemption will lead to a significant decrease in electrical safety, the Office expects to see in the application details of any expected decrease in electrical safety and actions the network operator proposes in mitigation.

It is strongly recommended that anyone who may be seeking an exemption contact the Office prior to forwarding the application. Applications that are inappropriately submitted may not be accepted.

The Office may have additional requirements that must be met if the exemption is implemented.

PART 2- REPORTING AND AUDIT

Regulation 7 Notification of serious electrical incident: see Appendix A

Regulation 8 Reporting incidents: see Appendix A

Regulation 9 Certain plans required and information to be given

Regulation 9(1)(a)

The relevant network operator will take action, in relation to its network assets, at the site where any electrical incident has occurred to ensure that the site is made electrically safe in the shortest practical time.

In making the site electrically safe, care should be taken to prevent any disturbance on the site that could inhibit any investigation into the cause of the incident. This includes, subject to safety considerations, complying with any directive of an official investigator undertaking an investigation of the incident.

The network operator should ensure that any investigator is aware of potential electrical hazards that exist, of which the network operator is aware, and provide assistance where required to disconnect the potential electrical hazard from the network operator's network assets.

PART 3 - DUTIES OF NETWORK OPERATORS

Regulation 10 Section 75 of the Act applies to this Part: requires no clarification

Regulation 11 Automatic disconnecting devices: requires no clarification

Regulation 12 Location of earth

An upstream network must be earthed at a location that permits the connection of devices for protecting the network against earth related fault occurrences.

It is essential that the upstream network be effectively referred to earth at a substation.

All low voltage neutral conductors should be solidly connected to the earthing system at the substation.

Regulation 13 Minimum distances between aerial lines and the ground

All distances specified are minimum distances from the ground to any point to which a part of an aerial line or other cable system may move as a result of swing or sag.

With respect to other cable systems, a network operator must ensure that the distance between the ground and the other cable system which is owned or operated by that network operator, complies with regulation 13.

Regulation 13(1)

The Office will consider applications for an exemption from the requirement in regulation 13(1) that an aerial line must have a 5500mm clearance over a 2000mm wide strip in the centre of each carriageway of a road on condition that –

- the applicant ensures that a 5500mm clearance is achieved at some point over the strip; and
- the line crosses from one side of the strip to the other side of the strip.

For the purpose of this regulation, a new aerial service line means an aerial service line which is constructed to provide electricity supply to a property not previously serviced by an aerial line.

In relation to the construction of a new aerial service line over a driveway, the ground clearance of the service line must be at least 4600mm at any time.

In relation to the construction of a new aerial service line over a residential lawn traversable by vehicles or the replacement of an existing aerial service line over a driveway or over such residential lawn –

1. The Office expects the network operator to make reasonable efforts to comply with regulation 13(1).
2. The Office will consider applications for exemption from the requirements of regulation 13(1), on condition that–
 - (a) the network operator demonstrates that it has made reasonable efforts to comply with this sub-regulation; and
 - (b) immediately before the exemption is granted, the service line complied with the relevant requirements relating to the safety clearance to the ground of the Electricity Safety (Network Assets) Regulations 1997 as if those regulations had not been revoked; and
 - (c) the service line continues to comply with the safety clearances set out in those regulations.
3. If upon application for an exemption, the network operator demonstrates that with regard to replacement of an existing aerial service line it can not comply with 2 above, the Office will consider an application for exemption from the requirements of regulation 13(1), on condition that–
 - (a) the service line is replaced in position so that the ground clearance of the line is at least the same as the existing line; and
 - (b) the network operator advises the occupier in writing, within 5 business days of the service line replacement, of the need to comply with the Regulations, within 24 months of the granting of the exemption, by—
 - (i) placing the line underground ; or
 - (ii) altering or relocating the point of attachment; or
 - (c) the network operator takes action within the 24 month period from the date of the replacement to achieve compliance with regulations 13(1).

Regulation 13(2) requires no clarification

Regulation 13(3) requires no clarification

Regulation 14 Minimum distances between aerial lines and parts of buildings or structures

It should be noted that the distances shown in Table 14.1 apply to the owner or operator of an upstream network constructing a line near a building or structure. Regulation 38, in Part 4 of the Regulations, specifies distances applicable to persons constructing buildings or structures near an aerial line of a network operator.

Regulation 15 Minimum distances for low voltage insulated conductors supported along the façade of a building or structure: requires no clarification

Regulation 16 Minimum distances between a.c. aerial lines and parts of railway systems

Regulation 16(1) requires no clarification

Regulation 16(2)

A high voltage aerial line carrying alternating current above a direct current catenary wire or supervisory cable for a d.c. train traction conductor must not, at any time, be closer than 900 millimetres above a straight line joining the higher of the supporting points for the span of the catenary wire or supervisory cable.

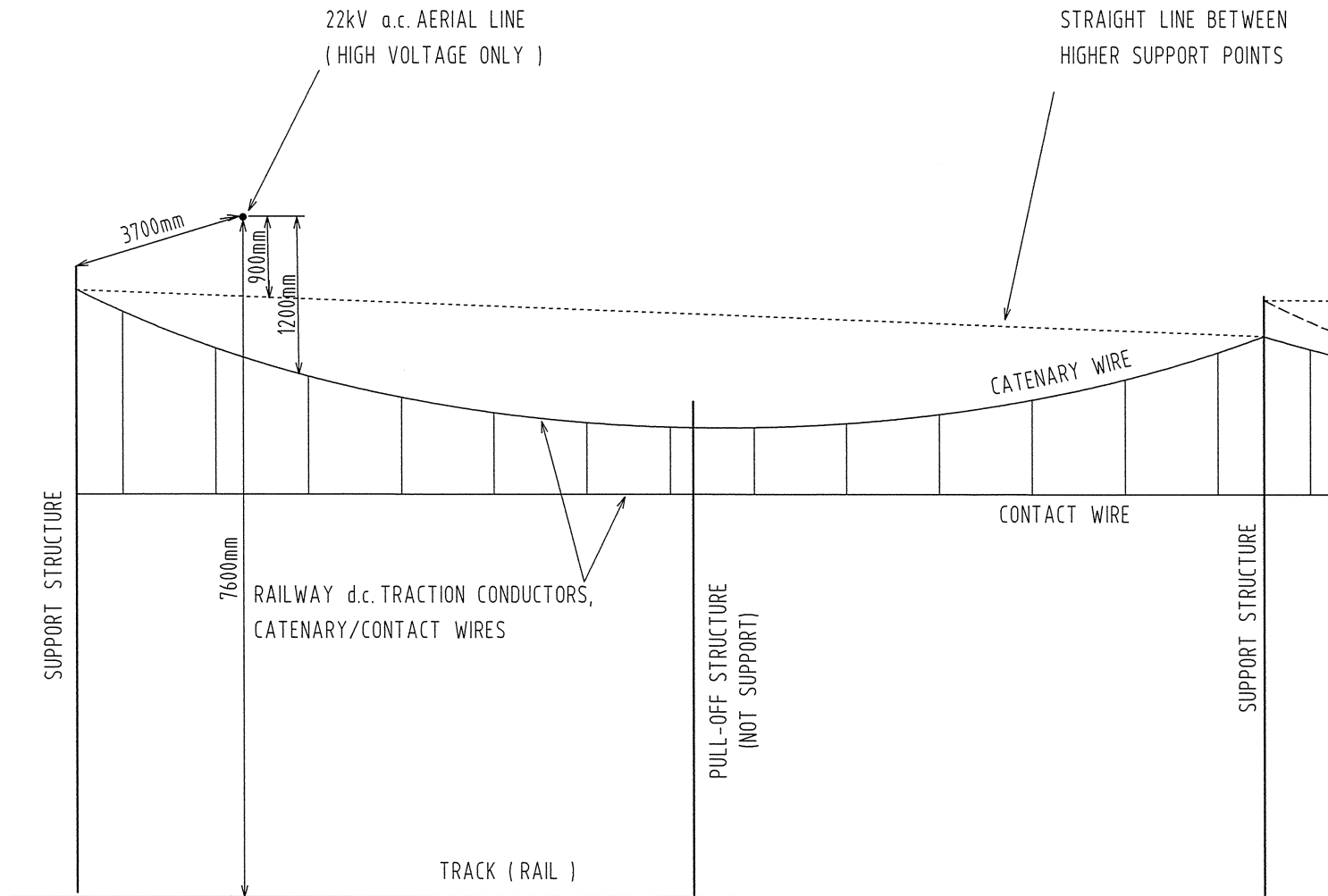
It is recognised that intermediate masts, called ‘pull-off’ structures which are installed to hold the d.c. traction conductor in position over the tracks are not considered as the higher of the supporting points.

D.C train traction conductors may also be installed on the outside of the support structures, at a higher support point than those above the tracks. As supervisory cables and electrolysis feeders are also installed in this position, to identify the type of aerial line, contact the Train Operator.

Regulation 16(3)

When designing, constructing, and maintaining an aerial line, the distances of the line above the railway track must not only comply with the minimum distances specified in Table 16 but also comply with regulation 16(2)

The following diagrams are used for illustrative purpose for regulation 16.



Regulation 17 Minimum distances between a.c. aerial lines and parts of tramway systems

The distances specified above tram track in Table 17 are to—

- prevent the trolley pole or a pantograph from coming into contact with the a.c. aerial line; and
- allow ‘live line’ work on the tram traction conductors, which includes access to the top of the tram vehicles.

D.C. traction conductors (positive feeders) are also installed on tram and distribution company poles, along with negative feeders and electrolysis cables. To identify the type of aerial line, contact the Tram Operator.

Regulation 18 Minimum distances between conductors of aerial lines: requires no clarification

Regulation 19 Minimum distances between aerial lines and water accessible to boats

An aerial line above water must be designed and installed at not less than the minimum height when measured from the water level at the normal high water mark.

Regulation 20 Construction of underground lines

Regulation 20(1) requires no clarification

Regulation 20(2)

An underground line must not, at any time, be closer to the surface of the ground than the relevant minimum depth specified in Table 20.

Where it is impractical to lay an underground line at the depth that complies with Table 20, the Office will consider applications for an exemption from the requirements in regulation 20(2), on condition that the network operator maintains a register of such lines and prepares and retains documentation that includes –

- A methodology to determine such a situation where compliance with regulations is impractical;
- Establishment of an absolute minimum depth that cables are to be installed in the impractical situation;
- The procedures to be followed or criteria that must be met before classifying an impractical situation (for example: selection of different route for the underground cable);
- Additional mechanical covers that are installed to provide equivalent protection to that prescribed by the Regulations;
- Supporting documentation justifying that it is impractical to install the underground cable at the required depth; and
- What actions the network operator intends to take to reduce the likelihood of this situation recurring on future installations.

Note: “additional mechanical covers” is a second layer of mechanical cover as prescribed by regulation 20(3).

Regulation 20(3) Mechanical Cover

Regulation 20(3)(a) requires no clarification

Regulation 20(3)(b) requires no clarification

Regulation 20(3)(c)

For the purpose of this sub-regulation, the Office considers that an existing or future covering of a

plastic or composite material that meets AS 4702 -2000 Polymeric Cable Protection Covers (issued on 30 November 2000 by Standards Australia) is deemed to have provided or provide equal protection to that provided by the methods described in regulation 20(3)(a) or (b).

Regulation 20(4)(a):

The Office will consider applications for varying the prescribe definition of "conduit" as bellow—

"conduit" means a non-metallic, heavy duty conduit that complies with the mechanical requirements of AS/NZS 2053.

Regulation 20(5) requires no clarification

Regulation 20(6) requires no clarification

Regulation 21 Mechanical protection of underground lines above the ground

Regulation 21(2) Mechanical protection

Regulation 21(2)(a) requires no clarification.

Regulation 21(2)(b) requires no clarification.

Regulation 21(2)(c) requires no clarification.

Regulation 22 Substations: requires no clarification

Regulation 23 Earthing and electrical protection

Regulation 23(1)

Earthing and electrical protection systems must be designed, installed, operated and maintained to safely manage supply network conditions likely to significantly increase the risk to people or cause significant damage to property. Earthing and protection systems should provide –

- reliable passage of fault and single wire earth return (SWER) load currents to ground and/or source;
- reliable and speedy operation of circuit protection devices;
- step, touch and transfer potentials with respect to assets associated with the circuit that are safe; and
- detection and isolation of electrical conditions likely to significantly increase risk to people or cause significant damage to property.

In determining electrical conditions likely to significantly increase risk to people or cause significant damage to property, due consideration must be given to extremes that may occur, the likelihood of their occurrence and the associated risks.

Protection equipment including sensing mechanisms, operating mechanisms and ancillary circuits should be manufactured to industry standards that will ensure safe operational performance.

Earthing and protection systems should be installed in accordance with design requirements and relevant industry standards.

Regulation 23(2)

The Office will consider applications for exemption from the requirements of regulation 23(2), where existing network assets are not fully compliant, on condition that the network operator ensures that existing network assets progressively meet the requirements set out by regulation 23(2) by 31 December 2010. The network operator should have a strategic plan to describe how they will meet these requirements.

Regulation 23(3) requires no clarification

Regulation 23(4) requires no clarification

Regulation 23(5) requires no clarification

Regulation 23(6) requires no clarification

Regulation 23(7) requires no clarification

Regulation 23(8) requires no clarification

Regulation 23(9) requires no clarification

Regulation 23(10) requires no clarification

Regulation 23(11)

Regulation 23(11)(a): For the purpose of this sub-regulation, to verify that a resistance of the neutral conductor of a service line is not more than one (1) ohm to earth, a network operator may use a Neutral & Supply Tester or other process accepted by the Office to perform a test at the following locations —

- the point of supply, or;
- the network operator's metering equipment located at the consumer's premises, or;
- the main switchboard neutral bar.

The Office will consider applications for exemption from the requirements of regulation 23(11)(a), on condition that there is a separate earthing system with a neutral conductor with a resistance –

(a) in relation to transformers with a rating up to or equal to 50kVA or 100kVA in the case of Single Wire Earth Return isolating transformers, of not more than thirty (30) ohms to earth; and

(b) in relation to transformers with a rating greater than 50kVA, of not more than 10 ohms to earth

when measured without connection to any electrical installations.

Regulation 23(11)(b) requires no clarification

Regulation 23(12) requires no clarification

Regulation 23(13) requires no clarification

Regulation 23(14) requires no clarification

Regulation 24 Access and warning signs

Regulation 24(1) requires no clarification

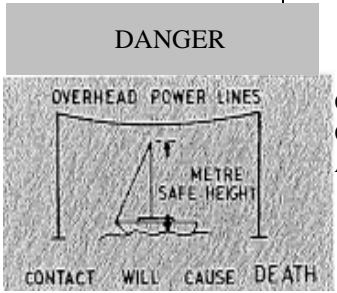
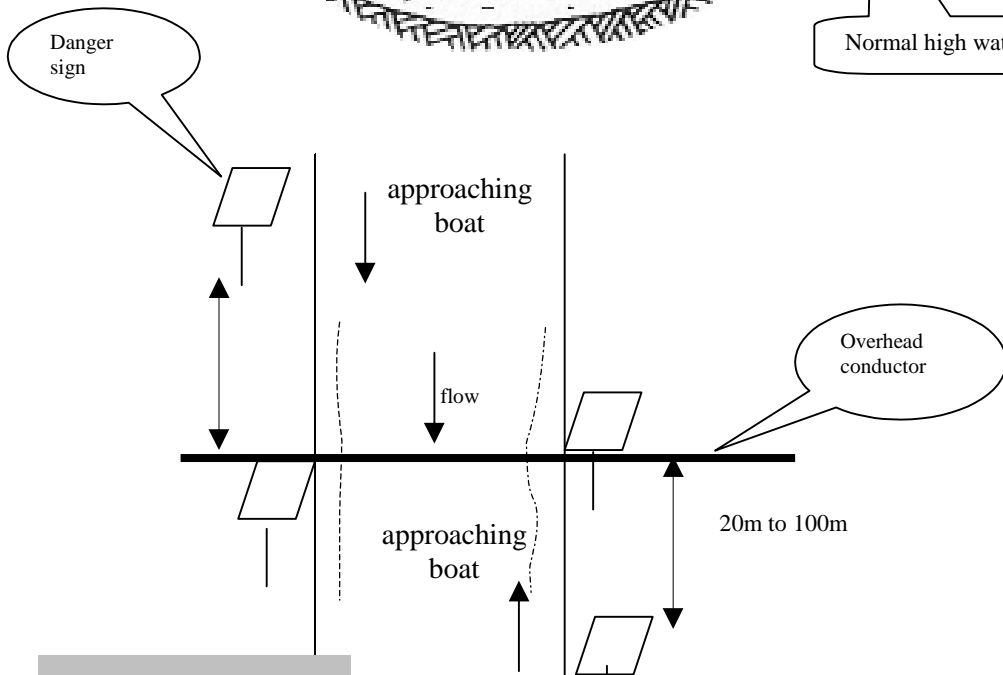
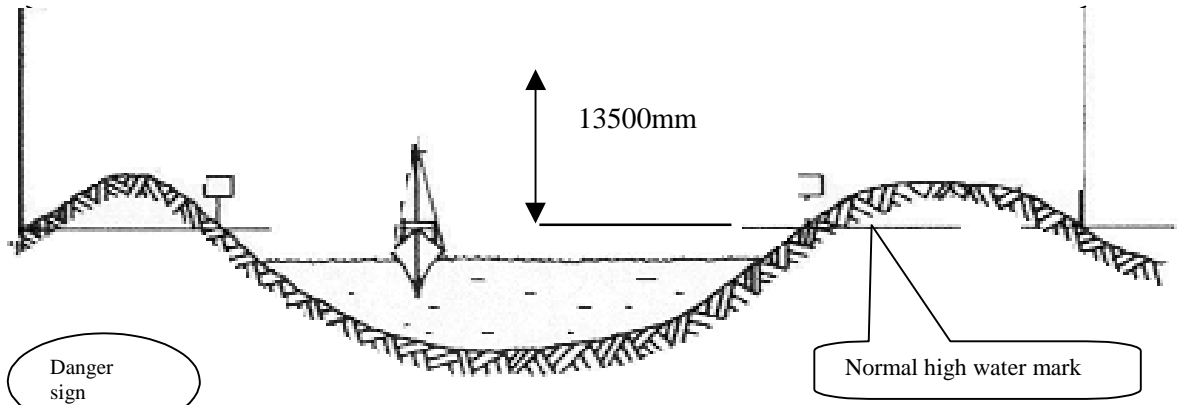
Regulation 24(2) requires no clarification

Regulation 24(3) The Office will consider an application for exemption from requirement in this sub-regulation on the condition that a clear and permanent sign warning of the overhead electric line must be erected at the normal high water mark—

- (a) at all boat ramps providing access to the water;
- (b) at all points where the electric line starts crossing the water; and
- (c) at a location within a range of 20 metres to 100 metres from the electric line when approaching the line by water. (i.e. the sign must be on both sides of the line)

Network operators should consult the authority controlling the waterway or storage regarding any special requirements for the crossing prior to construction commencing.

The following diagrams are used for illustrative purposes for regulations and 19 and 24.



One danger sign must be erected at 20m to 100m down stream on the right bank.
 One danger sign must be erected at 20m to 100m up stream on the left bank.
 A sign on each side of the crossing, at the crossing point.



Danger sign at a boat launching ramp

These requirements apply only to waters considered normally accessible to boats with masts.

Regulation 25 Poles and towers: requires no clarification

Regulation 26 Marking of network assets

Regulation 26(1) requires no clarification

Regulation 26(2): This regulation does not apply to underground lines that were in operation before 31 December 1999 (refer to regulation 49).

Underground lines, other than extra low voltage lines, buried in any part of a road must be –

- (a) clearly and permanently marked at the points where the underground line enters and exits the ground; and
- (b) identified by an orange marker tape in accordance with AS/NZS 2648.1 at least 150 mm above the uppermost surface of the line or the conduit or pipe enclosing the line.

The Office will consider applications for an exemption from the requirement in regulation 26(2)(a) in relation to underground lines entering and exiting the ground at locations not normally accessible to the general public.

The Office will consider applications for an exemption from the requirement in regulation 26(2)(b) in relation to underground lines installed by the process of boring, on condition that the enclosure of the line is a heavy duty orange conduit which meets the requirements of AS/NZS 2053 .

In relation to incoming/outgoing underground line to/from a kiosk substation or cabinet situated on the ground level, the permanent marker that is required under regulation 26(2) may be displayed on the kiosk or cabinet where the underground line enters or exits. If the pillar, cabinet or pit has the word “Electricity” clearly marked on it, no further sign is required at that location.

The cable marker shall be conspicuous, legible and securely fixed. It should be inspected regularly to ensure that it has not been removed.

The cable marker should detail the owner of the cable and contact details where further information regarding the cable can be obtained.

Regulation 27 Inspection and testing

Regulation 27(1) Before a network operator first energizes a network asset or any part of a network asset, or re-energizes an asset or part of an asset after the asset or part has been declared out of commission, the asset or part must be inspected and tested in accordance with established industry procedures and practices of the network operator, to ensure that the asset or part is safe.

Regulation 27(2) Earthing systems, except common multiple earthed neutral earthing systems, and electrical protection equipment, except fuses, must be inspected and tested at least every 10 years for compliance with regulation 23. In achieving this requirement, it is expected that approximately 10% of the total network would be tested each year.

It is required that a test of the service neutral be conducted at intervals not exceeding 10 years to confirm conformance with the desired outcome required under regulation 23(11)(a). This test using a Neutral & Supply Tester or other process accepted by the Office may be carried out at the following locations —

- the point of supply, or;
- the network operator’s metering equipment located at the consumer’s premises, or
- the main switchboard neutral bar.

The Office will consider applications for exemption from the requirements of regulation 27(2), in relation to concrete pole earths on condition that the network operator implements an appropriate pole earth testing program that gives an indication of the acceptable level of compliance of the electrical feeder.

Regulation 27(3) requires no clarification

Regulation 28 Operation and maintenance: requires no clarification

Regulation 29 Standard of the Upstream Network

An upstream network must be designed, constructed and operated in accordance with AS2926. The Office in conjunction with other electrical safety regulators, will adopt AS 60038: 2000 in the year 2003 via an amendment to this regulation.

Appendix A

REPORTING AND AUDIT

1 GENERAL

Part of the Office's functions is to investigate events or incidents which have implications for electricity safety and to advise the electricity industry and the community in relation to electricity safety.

To protect people from risk and to take action to reduce injury to persons or damage to property under those functions, the Office keeps a record of all electrical incidents reported.

The information gained from these reports, and subsequent investigations, is used to determine the cause of an incident and to implement remedial action to reduce the risk in the future.

The remedial action may include the revision of these or other regulations, providing information and guidance to special interest groups or the public in general, or the establishment of special committee to set rules for improving safety.

The Office must be notified of serious electrical incidents as a requirement of the Electricity Safety Act. Failure to report such an incident is a serious breach of the Act.

To assist in the notification of these incidents these Guidelines relating to the reporting of electrical incidents have been produced.

These Guidelines provide the network operators, other electricity suppliers and the fire control authority with guidance on the application of the Act and regulations 7 and 8 of the Electricity Safety (Network Assets) Regulations 1999.

These Regulations place an obligation on the network operators, other electricity suppliers and the fire control authority to report incidents involving electricity in which a person receives an electrical shock or makes accidental contact with a live high voltage electric line or equipment.

Following are contact details (in order of priority) for immediate reporting of fatal or serious electrical incidents to the Office—

EMERGENCY CALL TAKING (24 HOURS)	1800 000 922
BACK UP (24 HOURS)	(03) 9203 9781

2 CLARIFICATIONS

“area”	<p>in relation to an electricity supplier that is a network operator that owns or operates an upstream network, area is –</p> <ul style="list-style-type: none">(a) the upstream network of the network operator; and(b) any electrical installation to which the network operator supplies electricity; <p>in relation to an electricity supplier that is not a network operator, area is any electrical installation to which the electricity supplier generates, transmits, distributes or supplies electricity</p>
“all known details”	<p>all of the details of the incident within the knowledge of the body reporting the incident</p>
“as soon as practicable”	<p>is immediately after making any necessary contact with emergency services</p>
“business day”	<p>is a day other than a Saturday or Sunday or a public holiday under the Public Holidays Act 1993</p>
“injured / injury”	<p>is bodily harm requiring or appearing likely to require medical attention</p>
“medical attention”	<p>is medical treatment other than for observation only</p>
“minor electrical incident”	<p>is an electrical incident involving electricity in which a person –</p> <ul style="list-style-type: none">(a) makes accidental contact with any live high voltage electric line or live electrical equipment operated at high voltage; or(b) receives an electric shock as a result of direct or indirect contact with any network assets or an electrical installation
“reverse polarity”	<p>is a transposition of active, neutral and/or earth conductors</p>
“serious electrical incident”	<p>is an incident involving electricity which causes or has the potential to cause--</p> <ul style="list-style-type: none">(a) the death of or injury to a person; or(b) significant damage to property; or(c) a serious risk to public safety

- “serious risk to public safety”** includes -
- risk of personal injury
 - property damage that may directly or indirectly cause personal injury or significant damage to property
 - property damage by high voltage injection or direct current voltage injection
 - incident serious enough to warrant on site action to mitigate risk to the public by Police, Ambulance Service, Melbourne Fire and Emergency Service Board, Country Fire Authority, Victorian WorkCover Authority, a statutory body or an emergency service provider
 - reverse polarity of an electrical circuit that has been in service or declared to be in service (eg. after a working crew left the site)

- “significant damage to property”** includes –
- fire damage > 0.3 hectares
 - any live stock loss
 - > \$5000 damage to property other than network assets. (This excludes damage to vehicles as a result of collision with network assets without electricity going astray)
 - damage that has potential for significant media interest
 - damage serious enough to warrant on site action to mitigate risk to the public by Police, Ambulance Service, Melbourne Fire and Emergency Service Board, Country Fire Authority, Victorian WorkCover Authority, a statutory body or an emergency service provider

3 REPORTING BY ELECTRICITY SUPPLIERS TO THE OFFICE

3.1 Actions to be taken by an electricity supplier that is a network operator that owns or operates an upstream network regarding details within its knowledge of any serious electrical incident within its area (Section 142(1) & (2) and Regulation 7(1))

INCIDENT	NOTIFICATION AND REPORT BY NETWORK OPERATOR THAT OWNS OR OPERATES AN UPSTREAM NETWORK
If as a result of any incident involving electricity <ul style="list-style-type: none"> • a person is killed or injured or is likely to be killed or injured • significant damage to property has occurred or is likely to occur; or • serious risk to public safety has occurred or is likely to occur 	(a) As soon as practicable report to the Office by telephone all known details; and (b) Follow up with a completed Electrical Incident Confirmation Form (see Schedule 1) sent to the Office by facsimile or email within 2 business days of the telephone report; and (c) Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) to the Office within 20 business days of the telephone report

3.2 Actions to be taken by an electricity supplier regarding details within its knowledge of any minor electrical incident within its area (Regulation 8(2))

INCIDENT	REPORT BY ELECTRICITY SUPPLIER
If any person <ul style="list-style-type: none"> • makes accidental contact with any live high voltage electric line, or live electrical equipment operated at high voltage; or • receives an electric shock as a result of direct or indirect contact with any network assets or an electrical installation. 	Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) to the Office within 20 business days of becoming aware of the incident.

3.3 Actions to be taken by an electricity supplier regarding details within its knowledge of other electrical incident within its area

INCIDENT	REPORT BY NETWORK OPERATOR
<ul style="list-style-type: none"> • Power poles, towers or crossarms that have fallen, collapsed or ignited; • Substations that fail causing explosion or fire; • High voltage underground cables that fail causing explosion or loss of electricity supply where there is potential for significant media interest 	(a) Send a completed Electrical Incident Confirmation Form (see Schedule 1) sent to the Office by facsimile or email within 2 business days of the date that the network operator is aware of the incident; and (b) Send a detailed report to the Office when requested.

4 REPORTING BY A FIRE CONTROL AUTHORITY TO THE OFFICE

4.1 Actions to be taken by a fire control authority regarding details within its knowledge of any serious electrical incident that the fire control authority attends (Section 142(3)(a) and Regulation 7(2))

INCIDENT	REPORT BY A FIRE CONTROL AUTHORITY
<p>If as a result of any incident involving electricity, that the fire control authority attends</p> <ul style="list-style-type: none"> • a person is killed or injured or is likely to be killed or injured • significant damage to property has occurred or is likely to occur; or • serious risk to public safety has occurred or is likely to occur 	<p>(a) As soon as practicable report to the Office by telephone all known details (b) Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) and the results of the investigation to the Office within 20 business days of becoming aware that the fire was of an electrical nature</p>

4.2 Actions to be taken by a fire control authority where the fire control authority investigates a fire of an electrical nature (Section 142(3)(b) and Regulation 7(2))

INCIDENT	REPORT AND RESULTS OF INVESTIGATION FROM A FIRE CONTROL AUTHORITY
<p>If the fire control authority investigates a fire of an electrical nature</p>	<p>Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) and the results of the investigation to the Office within 20 business days of becoming aware that the fire was of an electrical nature</p>

4.3 Actions to be taken by a fire control authority where the fire control authority attends or investigates a minor electrical incident (Regulation 8(4))

INCIDENT	REPORT AND RESULTS OF INVESTIGATION FROM A FIRE CONTROL AUTHORITY
<p>If the fire control authority attends or investigates an incident where any person</p> <ul style="list-style-type: none"> • makes accidental contact with any live high voltage electric line, or live electrical equipment operated at high voltage; or • receives an electric shock as a result of direct or indirect contact with any network assets or an electrical installation. 	<p>Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) and the results of any investigation to the Office within 20 business days of becoming aware that the incident involved electricity</p>

5 REPORTING BY AN OWNER OR OPERATOR OF A RAILWAY OR TRAMWAY SYSTEM TO THE OFFICE

5.1 Actions to be taken by a network operator that owns or operates a railway or tramway system regarding details within its knowledge of any serious electrical incident in relation to its network assets (Regulation 8(1))

INCIDENT	NOTIFICATION AND REPORT BY A NETWORK OPERATOR THAT OWNS OR OPERATES A RAILWAY OR TRAMWAY SYSTEM
<p>If as a result of any incident involving electricity in relation to a network asset of a network operator that owns or operates a railway or tramway system,</p> <ul style="list-style-type: none"> • a person is killed or injured or is likely to be killed or injured • significant damage to property has occurred or is likely to occur; or • serious risk to public safety has occurred or is likely to occur 	<p>(a) As soon as practicable report to the Office by telephone all known details; and</p> <p>(b) Follow up with a completed Electrical Incident Confirmation Form (see Schedule 1) sent to the Office by facsimile or email within 2 business days of the telephone report; and</p> <p>(c) Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) to the Office within 20 business days of the telephone report</p>

5.2 Actions to be taken by a network operator that owns or operates a railway or tramway system where the network operator becomes aware of a minor electrical incident in relation to its network assets (Regulation 8(2))

INCIDENT	REPORT BY A NETWORK OPERATOR THAT OWNS OR OPERATES A RAILWAY OR TRAMWAY SYSTEM
<p>If as a result of any incident involving electricity in relation to a network asset of a network operator that owns or operates of a railway or tramway system, any person</p> <ul style="list-style-type: none"> • makes accidental contact (no electrical shock involved, e.g. contact by a machine) with any live high voltage electric line, equipment or apparatus; or • receives an electric shock as a result of direct or indirect contact with any network assets or an electrical installation. 	<p>Send by facsimile, surface mail or e-mail a completed Electrical Incident Report Form (see Schedule 2) to the Office within 20 business of becoming aware of the incident.</p>

6 OTHER INCIDENTS TO BE REPORTED QUARTERLY

The Office also requests the following information for the purposes of determining compliance with the Electricity Safety Act 1998 and the Regulations

INCIDENT	REPORT NETWORK OPERATOR
A) If any motor vehicle collides with network asset resulting in non compliance with requirements specified by the Regulations (other than those incidents reportable in 3,4 or 5 above).	Quarterly provide the Office with a written report on all known incidents occurring in the preceding quarter, with details of the incident including but not limited to– location, date and time of the incident, type of network asset, operation voltage, type of motor vehicle, a brief description of the incident.
B) If the clearances specified in the Regulations for network assets are not maintained due to any reason.	Quarterly provide the Office with a written report on all known incidents occurring in the preceding quarter, with relevant details of the incident.
C) If any regulatory requirement is not complied with due to a failure of supporting structure. This includes the supporting structure that breaks, leans, sinks or falls.	Quarterly provide the Office with a written report on all known incidents occurring in the preceding quarter, with relevant details of the incident including but is not limited to– location, date and time of the incident, type of network asset, operation voltage, particulars of non-compliance, a brief description of the incident and aftermath actions being taken.
(D) Any incident that had potential to become serious including–	
(1) Unserviceable poles that are considered to be in need of urgent attention which was not given within of 24 hours or a period approved by the Office and documented by network operators in their network asset management strategy;	Quarterly provide the Office with a written report on all known incidents occurring in the preceding quarter, with relevant details of the incident.
(2) Poles remaining in an unserviceable condition in excess of 3 months or a period approved by the Office and documented by network operators in their network asset management strategy;	as above
(3) Conductor (including DC conductor) failure whether or not it causes electricity going astray. This includes instances of connection failure whether or not the conductor was displaced in an unsafe manner;	as above
(4) Cable failure including reduction in insulation level of the cable. Instances of reduction in cable insulation below the minimum level set out by Australian Standards;	as above

INCIDENT	REPORT NETWORK OPERATOR
(5) Excavation of the ground in the vicinity of network assets without written permission from relevant network operator and in breach of regulation 36;	as above
(6) Unauthorised/accidental exposure of a cable whether or not the cable was energised at the time;	as above
(7) Unauthorised removal of cable guards or covers so as to reduce the mechanical protection;	as above
(8) Required warning signs being removed or vandalised to the extent that they do not clearly warn the public of potential risks (regulation 24.2);	as above
(9) An electrical earthing system fail to meet the designed standards (regulation 23);	as above
(10) Failure or degradation of the network operator's neutral conductor at any point of the low voltage supply network which could result in a voltage rise of more than 5 volts on any electrical installations earthing system;	as above
(11) Any flashover that occurs whilst working or operating on the network assets;	as above
(12) Instances of unintended operation of the electrical protection device while work is being performed on the network assets;	as above
(13) Network assets that have not been inspected or tested within the required testing or inspection period (regulation 27);	as above
(14) Breaches of any requirements of Part 4 of the Regulations other than those listed above.	as above

SCHEDULE 1



ELECTRICAL INCIDENT CONFIRMATION FORM

for confirmation of serious electrical incidents reported under regulations 7 and 8 of the Electricity Safety (Network Assets) Regulations 1999

to be sent by facsimile or electronic mail within 2 business days of telephone report

Office of the Chief Electrical Inspector

telephone: 1800 000 922 Facsimile: (03) 9686 2197

Email: lvuong@ocei.vic.gov.au

PERSON ATTENDING THE INCIDENT

Name _____ Company/Authority _____ Phone or mobile phone _____

Date of incident _____ Address of incident _____

Time of incident _____ Suburb _____ Postcode _____
am/pm

DETAILS OF INJURED OR DECEASED PERSON (if applicable)

Name _____ Age _____ Sex _____ Phone or Mobile phone _____

Residential address _____

Suburb _____ Postcode _____

DESCRIPTION OF INCIDENT

Death Injury Significant property damage or significant risk to public Safety

WORK or ACTIVITY BEING UNDERTAKEN AT THE TIME OF INCIDENT (if applicable)

CAUSE OF THE INCIDENT

ACTIONS UNDERTAKEN TO MAKE THE SITE SAFE

Note: The Incident Notification Form for Occupational Health and Safety (Incident Notification) Regulations may be used in place of this form

SCHEDULE 2



ELECTRICAL INCIDENT REPORT FORM

for reporting electrical incidents pursuant to regulations 7 and 8 of the Electricity Safety (Network Assets) Regulations 1999

1) PERSON ATTENDING THE INCIDENT

Name _____ Company/Authority _____

Date of incident _____ Time of incident _____ Date reported to _____

Company/Authority _____ Date attended by Company/Authority _____

2) LOCATION DETAILS OF INCIDENT

Incident address _____ Suburb/Town _____ Postcode _____

Type of premises (tick **one** box only) Residential Industrial Commercial
 Construction Other, specify _____

Specific location (bathroom, garage ...) _____ Name of owner of premises _____

3) PERSONAL DETAILS OF INJURED OR DECEASED PERSON (if applicable)

Surname _____ Given name _____ Age _____ Sex _____ Phone or Mobile phone _____

Residential address _____ Suburb/Town _____ Postcode _____

4) INCIDENT CATEGORY

- Minor Injury Death Significant property damage or Serious Risk to public safety

5) INJURIES and TREATMENT DETAILS

Electric shock Electrical burns Flash burns No shock or injury
 Resulting from fall Other - Specify _____

Severity of injury / shock Slight Strong Severe

Part of body
 Head Eyes Neck Trunk Arms Hands
 Legs Feet Other - Specify _____

Treatment
 Medical treatment Resuscitation Hospitalisation

6) ELECTRICAL INSTALLATION

Was fixed wiring of a premises associated with the incident? Yes No, Go to 7
 Give details (damaged insulation, faulty switches, uncovered junction box, exposed wire, manufacturer, type, etc...) _____

Was a safety switch (RCD) installed on the circuit associated with the incident? Yes No, Go to 7

Manufacturer _____ Model No _____

Did the RCD operate? Yes No Don't know
 Would you expect the RCD to have operated? Yes No Don't know

7) DISTRIBUTION SYSTEM

- (a) Was the incident associated with low voltage reticulation or service line? Yes
Was it Overhead Underground
Reticulation Conductor Al Cu
Service Conductor Al Cu
Service Type N/S TW ABC Open Other - Specify _____
Was overhead damaged by tree? Yes No
Incident occurred during the course of pruning Yes No

Describe the fault (eg. Pole End Fault: split bolt clamp, pole J box, vehicle damage, etc.)

- (b) Was the accident associated with other network assets? Yes No, **Go to 8**
(HV equipment, substations etc...)

Give details

8) EQUIPMENT or APPLIANCES INVOLVED WITH THE INCIDENT

- (a) Was equipment or appliance associated with the incident? Yes No, **Go to 8(b)**
Was equipment or appliance? Portable Stationary
Type of equipment/appliance? (iron, hair dryer, HV switch, etc...) _____
Manufacturer _____ Brand _____
Model No. _____ Approval No _____ Approximate Age _____
Condition of equipment Good Fair Poor
- (b) Was extension cord associated with the incident? Yes No, **Go to 9**
Correctly wired? Yes No
Condition Good Fair Poor

9) VOLTAGE INVOLVED

Supply voltage involved in the incident _____ Phase/Phase Phase/Earth
Voltage between points of contact _____

10) DESCRIPTION OF INCIDENT

Briefly describe what the victim was doing at the time of the incident, how injury was received and the cause of the incident (Use additional sheet and sketch if necessary for relevant detail)

11) ACTION TAKEN AND BY WHOM

12) OTHER CONTRIBUTING FACTORS

Briefly describe clothes worn by victim (*long/short sleeve shirt, trousers/shorts, overall, dress, skirt, etc.*).

Type of shoes	Condition of shoes	Weather condition (<i>Rainy, hot, dusty, humid, foggy, fine, cold, etc.....</i>)			
Lighting (or Visibility) conditions	<input type="checkbox"/> Good	<input type="checkbox"/> Poor	<input type="checkbox"/> Bad		
Type of floor	<input type="checkbox"/> Conductive	<input type="checkbox"/> Non conductive	<input type="checkbox"/> Dry	<input type="checkbox"/> Wet	

13) WORK RELATED INCIDENT

Did the incident occur in the course of work? Yes

Occupation

Victim was Elec. Supply Worker Other Electrical Worker Non-Electrical Worker
 Other - Specify _____

What work was the victim required to perform?

Employer's name	Phone or Mobile phone		
Employer's address	Suburb/Town	Postcode	

14) WITNESS DETAILS - (if applicable)

Name of the first witness	Phone or Mobile phone		
Residential address	Suburb/Town	Postcode	

Name of the second witness	Phone or Mobile phone		
Residential address	Suburb/Town	Postcode	

15) POLICE/ MEDICAL OFFICER DETAILS - (If applicable)

Name of attending officer	Phone or Mobile phone		
Rank and identification number	Station		
Name of attending doctor	Phone or Mobile phone		
Clinic or hospital address	Suburb/Town	Postcode	

16) CONTACT PERSON FOR THE REPORT

Name	Phone or Mobile phone
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17) PERSON SUBMITTING DETAILS

Name	Phone or Mobile phone
Title	Company
Signature	Date

Please use the space below for any additional information, diagrams or sketches that may be relevant.