

Version No. 003
Electricity Safety (Installations) Regulations
2009

S.R. No. 164/2009

Version incorporating amendments as at 27 April 2010

TABLE OF PROVISIONS

<i>Regulation</i>	<i>Page</i>
PART 1—PRELIMINARY	1
101 Objectives	1
102 Authorising provisions	2
103 Commencement	2
104 Revocation	2
105 Definitions	2
106 Application of the Australian/New Zealand Wiring Rules	15
PART 2—ELECTRICAL INSTALLATION WORK	16
Division 1—Safety standards for electrical installations	16
201 Application—Inconsistency between this Division and applied, adopted or incorporated standards	16
202 Wiring methods	16
203 Electrical installations installed before commencement of these regulations	16
204 Part 1 solutions	17
205 Control of electrical installations	19
206 Multiple earthed neutral (MEN) system	20
207 Main earthing conductor	21
208 Low voltage neutral earthing within substations	21
209 Multiple occupancy buildings, subdivisions and wiring passing through private land	21
210 Premises with consumer electricity generation systems	23
211 Electric security fences	23
212 Bonding of support for low voltage overhead service	23
213 Protection of underground consumer's mains	24
214 Construction of underground consumer's mains	25
215 Construction of consumer's mains within a structure	26
216 Mechanical cover of consumer's mains	26

<i>Regulation</i>	<i>Page</i>
217 Minimum depths of high voltage underground lines and underground lines on public land and on private land not owned or leased by the owner of the line	27
218 Route of underground lines	28
219 Mechanical protection of underground lines above the ground on public land and on private land not owned or leased by the owner of the line	30
220 Private electric lines	31
221 Emergency restoration of private electric aerial lines in high bushfire risk areas	32
222 Construction and maintenance of poles and towers	33
223 Minimum distances between aerial lines and the ground or water	33
224 Aerial lines and the façade of buildings	38
225 Minimum distances between aerial lines and buildings or structures	39
226 Minimum distances between aerial lines and parts of small gauge train systems	44
227 Minimum distances between aerial lines and parts of small gauge tram systems	45
228 Minimum distances between aerial lines	45
229 Minimum distance from the ground for substations	47
230 Marking of electric lines	48
Division 2—Testing of electrical installation work	48
231 Testing	48
Division 3—Electricity suppliers	49
232 Safety services	49
233 Earthing and electrical protection up to protective equipment	49
234 Service lines and electricity supplies	50
235 Installation of protective equipment	50
236 Suppliers must ensure use of double insulation	51
237 Supply of electricity to premises	52
Division 4—Inspection of electrical installation work	52
238 Prescribed electrical installation work	52
239 Inspection of prescribed electrical installation work	55
240 Certificates of inspection	55
241 Details to be accurate and legible—certificate of inspection	56
242 Obligations of licensed electrical inspectors	56
243 Notification of completion of certificate of inspection	57
244 Licensed electrical inspectors must retain a copy of certificates of inspection	57
245 Licensed electrical inspectors must not inspect their own work	57
246 Licensed electrical inspectors must not inspect work if involved with the design of the work	57

<i>Regulation</i>	<i>Page</i>
247 Installation work responsible person must not use an employee to inspect any work they are responsible for	58
248 Notification of defects by inspectors	58
249 Inspector must note defects on certificate of inspection	58
250 Notification of defects by Energy Safe Victoria	59
251 Certificates of compliance	59
252 Details to be accurate and legible—certificate of compliance	60
253 Notification of completion of certificate of compliance	60
254 Installation work responsible person must retain a copy of certificates of compliance	60
255 Authorised amount—certificates of electrical safety	61
Division 5—Reporting and records	61
256 Reporting of incidents	61
257 Reporting of incidents—fire control authorities	63
258 Records to be maintained	64
PART 3—ELECTRICAL SAFETY DUTIES	65
Division 1—Duties of owners and operators of high voltage electrical installations, complex electrical installations and supply networks of small gauge railways	65
301 General duties—high voltage electrical installations	65
302 General duties—complex electrical installations	67
303 General duties—small gauge railways	68
Division 2—Duties of the public	70
304 Application	70
305 Sporting activities	71
306 Aircraft, kites etc.	71
307 Entangled objects	71
308 Blasting and fires	72
309 Protection of underground electrical installations from damage	72
310 Excavating—private land	72
311 Excavating—public land and easements	73
312 Altering levels	74
313 Minimum distances between parts of buildings, structures, scaffolding and posts and aerial lines	75
314 Minimum distances between materials and certain aerial lines	76
315 Minimum distances between parts of vehicles, vessels, plant, machinery and aerial lines	77
316 Minimum distances between transported loads and aerial lines	78
317 Minimum distances between aerial lines	79
318 Minimum distances between persons and aerial lines	82
319 Tree clearing	83
320 Damage and interference	84
321 Placing of materials	85

<i>Regulation</i>	<i>Page</i>
PART 4—EXEMPTIONS	86
401 Exemptions	86
PART 5—INFRINGEMENT OFFENCES	88
501 Provisions for which infringement notices may be served	88
PART 6—RELATED AMENDMENTS	89
601 Amendments to related Regulations	89
<hr/>	
SCHEDULES	90
SCHEDULE 1—Revoked Regulations	90
SCHEDULE 2—Amendments to Related Regulations	91
1 Electricity Safety (Installations) Regulations 1999	91
2 Electricity Safety (Infringements) Regulations 2000	92
<hr/>	
ENDNOTES	93
1. General Information	93
2. Table of Amendments	94
3. Explanatory Detail	95

Version No. 003
Electricity Safety (Installations) Regulations
2009

S.R. No. 164/2009

Version incorporating amendments as at 27 April 2010

PART 1—PRELIMINARY

101 Objectives

The objectives of these Regulations are to—

- (a) prescribe the methods to be followed in carrying out electrical installation work; and
- (b) prescribe the quality of materials, fittings and apparatus to be used in connection with electrical installations; and
- (c) provide for inspection of prescribed electrical installation work; and
- (d) provide for the testing and certification of electrical installation work; and
- (e) prescribe fees, penalties and other matters authorised by the **Electricity Safety Act 1998**; and
- (f) prescribe standards for the design, construction, operation and maintenance of electrical installations; and
- (g) provide for the protection of persons from risk, and property from damage, associated with the generation, transmission, distribution and use of electricity; and

- (h) prescribe certain provisions of these Regulations that create offences as provisions in respect of which infringement notices may be served; and
- (i) make related consequential amendments to the Electricity Safety (Installations) Regulations 1999 and to the Electricity Safety (Infringements) Regulations 2000.

102 Authorising provisions

These Regulations are made under sections 149, 151, 152 and 157 of the **Electricity Safety Act 1998**.

103 Commencement

- (1) These Regulations, except regulation 104 and Division 2 of Part 3, come into operation on 1 January 2010.
- (2) Regulation 104 and Division 2 of Part 3 come into operation on the day on which these Regulations are made.

104 Revocation

The Regulations listed in Schedule 1 are **revoked**.

105 Definitions

In these Regulations—

accessories has the same meaning as it has in the Australian/New Zealand Wiring Rules;

active conductor has the same meaning as "active" in the Australian/New Zealand Wiring Rules;

aerial line means a conductor placed above the ground or water and in open air;

appendix K means appendix K to the Australian/New Zealand Wiring Rules as published on 12 November 2007;

AS 1074 means AS 1074, Australian Standard, "Steel tubes and tubulars for ordinary service", as published or amended from time to time;

AS/NZS 1735.1 means AS/NZS 1735.1, Australian/New Zealand Standard, "Lifts, escalators and moving walks – General requirements", as published or amended from time to time;

AS/NZS 1735.18 means AS/NZS 1735.18, Australian/New Zealand Standard, "Lifts, escalators and moving walks Part 18: Passenger lifts for private residence—Automatically controlled", as published or amended from time to time;

AS/NZS 2053 means AS/NZS 2053, Australian/New Zealand Standard, "Conduits and fittings for electrical installations", as published or amended from time to time;

AS 2067 means AS 2067, Australian Standard, "Substations and high voltage installations exceeding 1 kV a.c.", as published or amended from time to time;

AS/NZS 3003 means AS/NZS 3003, Australian/New Zealand Standard, "Electrical installations – Patient areas of hospitals and medical, dental practices and dialyzing locations", as published or amended from time to time;

AS/NZS 3016 means AS/NZS 3016, Australian/New Zealand Standard, "Electrical installations – Electric security fences", as published or amended from time to time;

AS 3600 means AS 3600, Australian Standard, "Concrete structures", as published or amended from time to time;

AS 3891.1 means AS 3891.1, Australian Standard, "Air navigation – Cables and their supporting structures – Marking and safety requirements Part 1 – Permanent marking of overhead cables and their supporting structures for other than planned low-level flying", as published or amended from time to time;

AS 3891.2 means AS 3891.2, Australian Standard, "Air navigation – Cables and their supporting structures – Marking and safety requirements Part 2 – Marking of overhead cables for planned low-level flying operations", as published or amended from time to time;

AS/NZS 4680 means AS/NZS 4680, Australian/New Zealand Standard, "Hot-dip galvanized (zinc) coatings on fabricated ferrous articles", as published or amended from time to time;

AS 4702 means AS 4702, Australian Standard, "Polymeric cable protection covers", as published or amended from time to time;

AS/NZS 4792 means AS/NZS 4792, Australian/New Zealand Standard, "Hot-dip galvanized (zinc) coatings on ferrous hollow sections, applied by a continuous or a specialized process", as published or amended from time to time;

Australian/New Zealand Wiring Rules means AS/NZS 3000, Australian/New Zealand Standard, "Electrical installations", as published or amended from time to time;

bare open wire means uninsulated conductors supported by insulators;

combined earthing system means an earthing system in which the high voltage and low voltage electrical equipment is earthed to a common terminal bar within a substation;

competent person has the same meaning as it has in the Australian/New Zealand Wiring Rules;

conductor has the same meaning as it has in the Australian/New Zealand Wiring Rules;

conductor spreader means an insulated rod used to maintain the clearances between the bare open wire conductors of a low voltage private aerial line;

consumer electricity generation system means a generation system that is connected to an electrical installation and includes a grid-connected inverter system that is intended to supply electricity, either continually or occasionally, to all or part of that electrical installation, but does not include a generation system with an installed or nameplate capacity of 30 megawatts or more;

consumer's mains has the same meaning as it has in the Australian/New Zealand Wiring Rules;

consumer's terminals means the connection devices used for the connection of an electrical installation to the supply network of a major electricity company or an interstate electricity supplier;

d.c. traction conductor means an overhead tram trolley wire, a train contact wire or a tram or train catenary or traction feeder that operates on direct current but does not include tram and train negative conductors that are installed on or below the ground;

distribution network means a supply network (generally at nominal voltage levels of 66 000 volts or below) that is used to distribute electricity to electrical installations;

domestic electrical installation means an electrical installation or a portion of an electrical installation related to a residential premises;

double insulation has the same meaning as it has in the Australian/New Zealand Wiring Rules;

effective supervision, in relation to electrical work, means—

- (a) being present at the site of the electrical work to the extent necessary to ensure that the work is being correctly performed and carried out in accordance with the Act and these Regulations; and
- (b) being aware of the details of the work being performed and giving detailed instructions and directions with respect to the work;

electrical access authority has the same meaning as "Access Authority" in the Blue Book;

fire pump means a fire hydrant booster pump, a pump for an automatic sprinkler, water spray, deluge or similar fire extinguishing system, and—

- (a) includes a pump for fire hose reels if those fire hose reels are the only means of fire protection for a premises;

- (b) does not include a pump used to establish and maintain pressure in a fire hydrant or fire extinguishing system provided that any fire hydrant or fire extinguishing system does not rely on that pump for its water supply;

grid-connected inverter system means a system containing an inverter that is capable of being connected in parallel with the supply network of an electricity supplier;

hazardous area has the same meaning as in the Australian/New Zealand Wiring Rules;

hazardous bushfire risk area means an area that—

- (a) a fire control authority has assigned a fire hazard rating of "high" under section 80 of the Act; or
- (b) is not an urban area (unless a fire control authority has assigned to that area a fire hazard rating of "low" under section 80 of the Act);

high voltage means a voltage exceeding low voltage;

horizontally constructed, in relation to an aerial line, means a construction method where the individual conductors of an aerial line are supported by insulators mounted on crossarms;

initial portion, in relation to an underground line, means—

- (a) in the case of a low voltage underground line, the first 1000 millimetres;

- (b) in the case of a high voltage underground line, the first 2000 millimetres—

measured from the point where the underground line enters the ground;

individual occupier's portion means a portion of a multiple installation that is—

- (a) under the control of an individual occupier; or
(b) designed to be under the control of an individual occupier;

installation work responsible person means the person who is responsible for the carrying out of electrical installation work under section 41A of the Act;

interstate electricity supplier means a person who—

- (a) engages in the distribution or supply of electricity in Victoria; and
(b) owns or operates a distribution network in Victoria along which electricity supplied from an adjacent State is conveyed; and
(c) is exempted by an Order under section 17 of the **Electricity Industry Act 2000** from the requirement to obtain a licence under that Act in respect of the distribution or supply of electricity;

licensed electrician means an electrical installation worker holding an electrician's licence under Part 3 of the Electricity Safety (Registration and Licensing) Regulations 2010;

Reg. 105
def. of
*licensed
electrician*
substituted by
S.R. No.
21/2010
reg. 41(a).

licensed electrical inspector means a person holding an inspector's licence under Part 3 of the Electricity Safety (Registration and Licensing) Regulations 2010;

Reg. 105
def. of
*licensed
electrical
inspector*
substituted by
S.R. No.
21/2010
reg. 41(b).

low voltage has the same meaning as it has in the Australian/New Zealand Wiring Rules;

Melways Street Directory means the street directory entitled "Greater Melbourne" as published from time to time by Melway Publishing Pty Ltd;

multiple installation has the same meaning as "electrical installation, multiple" in the Australian/New Zealand Wiring Rules;

negative conductor means a conductor in a circuit of a railway or small gauge railway that is—

- (a) maintained at approximately the same electrical potential as the train track or tram track; and
- (b) insulated from earth;

neutral conductor has the same meaning as "neutral" in the Australian/New Zealand Wiring Rules;

other cable system means—

- (a) telecommunication and control cables;
or
- (b) aerial earthed cables;

passenger lift means an electrically controlled lift that is capable of conveying passengers, but does not include—

-
- (a) a lift which passengers may safely exit if the lift stops at any point in its travel; or
 - (b) a lift that has an alternative source of operation that allows passengers to exit safely if there is a loss of electricity supply to that lift provided that in the event of a loss of electricity supply—
 - (i) if open, the lift doors automatically close; and
 - (ii) the lift descends to the level of the building that contains the building's exit; and
 - (iii) the lift doors open upon reaching the level containing the building's exit; and
 - (iv) the lift remains at the level containing the building's exit with its doors open until the electricity supply to the lift is restored; or
 - (c) a lift installed in a single private residence in accordance with AS/NZS 1735.18;

patient area has the same meaning as in AS/NZS 3003;

part 1 solution means a design and installation method adopted under regulation 204;

pole line means an aerial line supported by two or more poles;

private aerial line means a private electric line that is an aerial line and includes any pole that supports an electricity supplier's aerial line, but does not include a pole that is part of the supply network of—

- (a) a major electricity company; or
- (b) an interstate electricity supplier.

private residence has the same meaning as in AS/NZS 1735.1;

protective equipment means equipment that is intended to automatically isolate the active conductors of a circuit if an electrical fault occurs;

readily accessible has the same meaning as it has in the Australian/New Zealand Wiring Rules;

reference code means a unique identifying number or code provided by Energy Safe Victoria under regulation 221;

registered electrical contractor means an electrical contractor registered under Part 2 of the Electricity Safety (Registration and Licensing) Regulations 2010;

Reg. 105
def. of
*registered
electrical
contractor*
substituted by
S.R. No.
21/2010
reg. 41(c).

reinforced insulation has the same meaning as it has in the Australian/New Zealand Wiring Rules;

related body corporate has the same meaning as in section 9 of the Corporations Act;

relevant installation means—

- (a) a low voltage electrical installation operating on public land; or
- (b) a high voltage electrical installation; or
- (c) a supply network owned or operated by a major electricity company; or
- (d) the supply network of a railway; or

- (e) the supply network of a small gauge railway;

retailer has the same meaning as in the **Electricity Industry Act 2000**;

safety service has the same meaning as it has in the Australian/New Zealand Wiring Rules;

separate earthing system means an earthing system in which—

- (a) the high voltage electrical equipment of an electrical installation is connected only to a high voltage earthing terminal bar within a substation; and
- (b) the low voltage electrical equipment of an electrical installation is connected only to a low voltage earthing terminal bar within a substation; and
- (c) the high voltage earthing terminal bar and the low voltage earthing terminal bar are not connected to each other;

service protective device means a fuse, circuit breaker or other protective equipment installed for interrupting the supply to an electrical installation from the supply network of a major electricity company or interstate electricity supplier;

service line means the final span or section of a low voltage aerial line or underground line that is part of the supply network of—

- (a) a major electricity company; or
- (b) an interstate electricity supplier—

that is connected to a point of supply;

small gauge railway means a system by which vehicles designed to transport passengers or goods are guided by means of a train track or a tram track—

- (a) with a gauge less than 600 millimetres;
or
- (b) in an amusement park;

small gauge train system means a small gauge railway (other than a small gauge tram system) by which trains are guided by means of a track;

small gauge tram system means a small gauge railway by which trams are guided by means of a track;

specified incorporated term means—

- (a) active conductor;
- (b) competent person;
- (c) conductor;
- (d) consumer's mains;
- (e) double insulation;
- (f) hazardous area;
- (g) low voltage;
- (h) multiple installations;
- (i) neutral conductor;
- (j) readily accessible;
- (k) reinforced insulation;
- (l) safety service;
- (m) substation;

Note

See also regulation 106(e).

stand-alone power system means a power generation system connected to an electrical installation that is not connected to an electricity supplier's supply network;

substantial reconstruction means—

- (a) in the case of private aerial lines, replacement of more than 20% of the wiring or replacement of more than 20% of the number of poles in a line supporting wiring;
- (b) in the case of private aerial lines supported by means of a catenary, replacement of more than 20% of the cable supported by a catenary or catenaries or replacement of more than 20% of the number of poles for the catenary or catenaries supporting a cable;

substation has the same meaning as it has in the Australian/New Zealand Wiring Rules;

SWER means single wire earth return;

the Act means the **Electricity Safety Act 1998**;

the Blue Book means the Code of Practice of Electrical Safety For Work On or Near High Voltage Electrical Apparatus, as published or amended from time to time by Energy Safe Victoria;

underground line means a conductor placed under the ground and includes any part of the conductor that is at or above the surface of the ground;

urban area has the same meaning as it has in the Act for the purposes of Part 8 of the Act;

vessel has the same meaning as in the **Marine Act 1988**;

VicRoads Country Street Directory means the street directory entitled "VicRoads Country Street Directory of Victoria", as published from time to time by the Royal Automobile Club of Victoria.

106 Application of the Australian/New Zealand Wiring Rules

The Australian/New Zealand Wiring Rules are applied, adopted or incorporated under these Regulations with the following modifications—

- (a) every reference in the Rules to a regulatory authority is a reference to Energy Safe Victoria;
 - (b) every reference in the Rules to an electrician is a reference to a licensed electrician;
 - (c) every reference in the Rules to a licensed electrical contractor is a reference to a registered electrical contractor;
 - (d) every reference in the Rules to water and gas suppliers includes a reference to telecommunication suppliers;
 - (e) every term that is defined in the Rules that is also defined in the Act or these Regulations (and that is not a specified incorporated term) has the meaning given to it under the Act or these Regulations.
-

PART 2—ELECTRICAL INSTALLATION WORK

Division 1—Safety standards for electrical installations

201 Application—Inconsistency between this Division and applied, adopted or incorporated standards

If a provision in any standard referred to in this Division is inconsistent with a provision of this Division, the provision of this Division prevails to the extent of the inconsistency.

202 Wiring methods

A person must not install, alter, repair or maintain an electrical installation or a portion of an electrical installation unless the installation or the installed, altered, repaired or maintained portion of the installation complies with—

- (a) this Division; and
- (b) Part 2 of the Australian/New Zealand Wiring Rules; and
- (c) in the case of a high voltage electrical installation, AS 2067 and Appendix K of the Australian/New Zealand Wiring Rules except for the following provisions—
 - (i) clauses K11.4.2 and K11.5.2; and
 - (ii) the Note in clause K2.

203 Electrical installations installed before commencement of these regulations

- (1) Despite regulation 202, an existing electrical installation or portion of an existing electrical installation may be repaired or maintained using methods that comply with Part 1 of the Australian/New Zealand Wiring Rules, other than clause 1.9.4.

- (2) In this regulation *existing electrical installation* means an electrical installation that was installed before the commencement of these Regulations other than—
- (a) an electric fence; or
 - (b) a metallic support within the meaning of regulation 212; or
 - (c) a private electrical line; or
 - (d) a private aerial line to which regulation 221 applies.

204 Part 1 solutions

- (1) This regulation applies if an electrical installation or a portion of an electrical installation (other than a domestic electrical installation or portion of a domestic electrical installation), because of its unusual requirements, application or intended use, cannot meet the requirements of this Division.
- (2) A person may adopt a design and installation method (a *part 1 solution*) that—
 - (a) satisfies the fundamental safety principles set out in section 1.5 of Part 1 of the Australian/New Zealand Wiring Rules; and
 - (b) will provide a level of safety from physical injury, fire and electric shock that is at least equivalent to the level that would be provided if this Division is complied with.
- (3) A person may only elect to adopt the part 1 solution before they sign the certificate of compliance that relates to the part 1 solution.
- (4) Before commencing the installation work related to a part 1 solution, a person must obtain written consent from the owner of the electrical installation to depart from the requirements of this Division in relation to the part 1 solution.

-
- (5) Before commencing the installation work relating to a part 1 solution, a person must have the design of that part 1 solution verified as complying with Part 1 of the Australian/New Zealand Wiring Rules by an independent competent person who was not involved in the design of the part 1 solution.
- (6) On the adoption of a part 1 solution in relation to an electrical installation, the person must do the following things—
- (a) clearly and permanently mark the main switchboard of the installation where the part 1 solution has been adopted and any other switchboard that is associated with the part 1 solution with the following words—
"Warning—parts of this installation adopt a part 1 solution under the Wiring Rules".
and
 - (b) maintain documentation that details—
 - (i) the nature and extent of the part 1 solution; and
 - (ii) the electrical installation or portions of the electrical installation where the part 1 solution was used; and
 - (iii) why the requirements of this Division could not be met; and
 - (iv) how compliance with subregulation (2)(a) and (2)(b) was achieved; and
 - (v) the verification required by subregulation (5).
- (7) A copy of the documentation referred to in subregulation (6)(b) must—
- (a) be given to the owner of the electrical installation; and
-

- (b) be retained by the person responsible for the carrying out of the electrical installation work for a period of 3 years commencing after the completion of the electrical installation work.
- (8) To avoid doubt, despite a part 1 solution being adopted for a portion of an electrical installation, all remaining portions of the electrical installation must comply with this Division.
- (9) Energy Safe Victoria may require a competent person to certify that the materials, equipment and methods adopted under a part 1 solution are equivalent to the requirements of this Division.

205 Control of electrical installations

- (1) The electricity supply to an electrical installation must be controlled on the main switchboard by a main switch or switches that control the whole of the electrical installation.
- (2) Despite subregulation (1), the following electrical equipment is not required to be controlled by a main switch—
 - (a) consumers mains;
 - (b) equipment for metering or the control or protection of metered or metering circuits owned by a major electricity company, an interstate electricity supplier or a retailer;
 - (c) a service protective device owned by a major electricity company or an interstate electricity supplier;
 - (d) any ancillary equipment, measuring equipment, and associated wiring that are required to be connected to the supply side of the main switch or switches, provided that the wiring and equipment are confined within or on the switchboard;

- (e) equipment, such as voltage sensing equipment, associated with a safety service that is connected on the supply side of a main switch in accordance with Australian/New Zealand Wiring Rules;
 - (f) equipment, such as voltage sensing equipment, associated with an alternative supply system that is connected on the supply side of a main switch in accordance with Australian/New Zealand Wiring Rules;
 - (g) fault-current limiters;
 - (h) surge diverters installed to protect consumers mains or main switchboards;
 - (i) an over-current protective device of the kind required by regulation 220(2) that is installed at the origin of a overhead private electric line;
 - (j) consumer's terminals.
- (3) Despite subregulation (1), an electricity supply to an electrical installation that is supplied by a generation system contained within that electrical installation may be controlled by a main switch on a switchboard that is not the main switchboard.

206 Multiple earthed neutral (MEN) system

An electrical installation required to be earthed must have a multiple earthed neutral connection—

- (a) at the main switchboard; or
- (b) at an earth bar or link within a substation; or
- (c) made through an earthing conductor or terminal provided by the electricity supplier.

207 Main earthing conductor

A main earthing conductor must be taken from the main earthing terminal, connection or bar at the main switchboard to—

- (a) an earth electrode; or
- (b) an earth bar or link within a substation forming part of the electrical installation; or
- (c) an earthing conductor or terminal provided by the electricity supplier.

208 Low voltage neutral earthing within substations

The neutral terminal of each low voltage transformer within a substation must be connected to—

- (a) in the case of a substation with a combined earthing system, the common earthing terminal bar contained within the substation;
- (b) in the case of a substation with a separate earthing system, the low voltage earthing terminal bar contained within the substation.

209 Multiple occupancy buildings, subdivisions and wiring passing through private land

(1) If—

- (a) electricity supplies for lots on a subdivision or a multiple occupancy building are established at a single point; and
- (b) the subdivision or multiple occupancy building contains common property or a common area—

the individual wiring supplying a lot or occupancy must be placed on that common property or common area.

-
- (2) If electricity supplies for lots on a subdivision or a multiple occupancy building are established at a single point and the individual wiring associated with a lot or occupancy passes through another lot or occupancy or service ducts in another lot or occupancy, a person carrying out electrical installation work related to that individual wiring on a lot or occupancy must—
- (a) ensure that any sections of wiring passing through the other lot or occupancy or the service ducts in the other lot or occupancy are clearly and permanently identified, by means of marking or attached labels, at intervals not exceeding 2 metres to indicate that the wiring is not controlled from the switchboard of the other lot or occupancy; and
 - (b) ensure that the switchboard of the other lot or occupancy through which the wiring or service ducts pass is clearly and permanently marked with the following words—
"Warning—not all wiring passing through these premises is controlled from this switchboard"; and
 - (c) ensure that a sign, durable card or other durable material is fixed to the switchboard of the other lot or occupancy through which the wiring or service ducts pass setting out the location of the wiring or service ducts.
- (3) If individual wiring related to an electrical installation is on private land that is not owned or leased by the owner of that wiring, the switchboard of any private land through which the wiring passes must—
-

- (a) be clearly and permanently marked with the following words—

"Warning—not all wiring passing through this land or these premises is controlled from this switchboard"; and

- (b) show the location of the wiring on a sign, durable card or other durable material.

210 Premises with consumer electricity generation systems

A person who carries out electrical installation work on a consumer electricity generation system must (in the premises where the consumer electricity generation system is installed or connected to) clearly and permanently mark the main switchboard, any fire indicator panels and all switchboards that will be energised by that consumer electricity generation system—

- (a) with the following words—

"Warning—this premises contains an electricity generation system"; and

- (b) with the location of isolation switches for all electricity generation systems installed or connected to the premises.

211 Electric security fences

An electric fence (not including electric fences intended primarily for the containment of animals) must be installed, altered, repaired or maintained in accordance with AS/NZS 3016.

212 Bonding of support for low voltage overhead service

- (1) A metallic structure or part of a building to be installed, altered, repaired or maintained to support an active conductor of a low voltage overhead service line (*metallic support*) must be

effectively bonded in accordance with this regulation.

- (2) The bonding conductor must have an equivalent current carrying capacity to that of the neutral conductor of the service line and be connected to the neutral conductor of the service line at the location of the metallic support.
- (3) The bonding conductor referred to in subregulation (2) must have a resistance no greater than 0.5 ohms measured between the consumer's terminal for the neutral conductor of the service line and the metallic support.
- (4) If the bonding conductor is exposed to the weather, the connections of the bonding conductor must be protected against corrosion in accordance with the requirements for the protection of earthing conductors against corrosion as set out in the Australian/New Zealand Wiring Rules.
- (5) For the purposes of this regulation a metallic part of a building or structure includes a bolt, eye bolt, hook, strut or raiser bracket.

213 Protection of underground consumer's mains

- (1) An electrical installation that is supplied from an underground electric line must have—
 - (a) protective equipment provided at the point of supply; or
 - (b) the consumer's mains cables sheathed from the point of supply to the first protective device located within the installation.
- (2) For the purposes of subregulation (1), an electricity supplier's protective device at the installation's metering point may be regarded as the first protective device.

214 Construction of underground consumer's mains

- (1) If an electricity supplier's underground service lines are protected by protective equipment installed at an electrical installation's metering point, the portion of underground consumers mains that runs from the property boundary to the building or structure housing the metering equipment (the *relevant portion*) must be buried to a depth of at least 500 millimetres below the surface of the ground.
- (2) The relevant portion must be—
 - (a) comprised of double insulation; or
 - (b) surrounded by a neutral screen.
- (3) The relevant portion must be—
 - (a) suitable for use underground; and
 - (b) enclosed in—
 - (i) a heavy duty non-metallic conduit that complies with AS/NZS 2053; or
 - (ii) a medium or heavy galvanised steel tube that complies with AS 1074.
- (4) In the case of a relevant portion that is a multi-core or neutral screen cable, the relevant portion must be—
 - (a) enclosed in—
 - (i) a heavy duty non-metallic conduit that complies with AS/NZS 2053; or
 - (ii) a medium or heavy galvanised steel tube that complies with AS 1074; or
 - (b) provided with mechanical cover in accordance with regulation 216.

- (5) Subregulations (1) to (4) do not apply to the first 1000 millimetres of consumers mains from the point where the consumers mains enter the ground if that portion is—
- (a) enclosed as required under paragraph (3)(b); or
 - (b) provided with additional mechanical cover in accordance with regulation 216.

215 Construction of consumer's mains within a structure

If an electricity supplier's underground service lines are protected by protective equipment installed at an electrical installation's metering point, any consumers mains within the building or structure upstream of that equipment must be enclosed in—

- (a) a heavy duty non-metallic conduit of a sort described in AS/NZS 2053; or
- (b) a medium or heavy galvanised steel tube that complies with AS 1074.

216 Mechanical cover of consumer's mains

- (1) For the purposes of regulation 214(4) and (5), mechanical cover must—
- (a) be placed not less than 50 millimetres and not more than 75 millimetres above the consumers mains; and
 - (b) not be less than 150 millimetres wide; and
 - (c) overlap the consumers mains by at least 40 millimetres on each side; and
 - (d) touch or overlap each other so that no spaces are left between the slabs or cover strips; and

- (e) be installed with a minimum depth of cover of 500 millimetres from the top of the additional mechanical protection to the surface of the ground; and
- (f) consist of one or a combination of the following—
 - (i) precast concrete slabs having a thickness of not less than 40 millimetres and a classification of not less than grade 20 in accordance with AS 3600;
 - (ii) polymeric cable cover strip complying with AS 4702.
- (2) If mechanical cover is used to protect an underground line, the line must be—
 - (a) laid on a bed of not less than 50 millimetres of sand or friable soil free of sharp stone; and
 - (b) covered by not less than 50 millimetres of the same material.

217 Minimum depths of high voltage underground lines and underground lines on public land and on private land not owned or leased by the owner of the line

- (1) A high voltage underground line, or any underground line on public land or on private land not owned or leased by the owner of the line must not be closer to the surface of the ground than the relevant minimum depth specified in column 2, 3, or 4 of Table 217.

Note

Section 46 of the Act generally prohibits the construction of electric lines on public land unless an exemption applies.

- (2) Subregulation (1) does not apply to the initial portion of an underground line if the initial portion—
- (a) is protected by a mechanical cover in accordance with regulation 216(1); or
 - (b) is enclosed in a heavy duty non-metallic conduit that complies with AS/NZS 2053; or
 - (c) is enclosed in a medium or heavy galvanised steel tube that complies with AS 1074.
- (3) Subregulation (1) does not apply to—
- (a) negative conductors; or
 - (b) those portions of underground lines that are above ground.

TABLE 217—Minimum depths for underground lines from the surface of the ground

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Type of underground line Nominal voltage ("U")</i>	<i>Directly buried</i>	<i>Directly buried and covered with a mechanical cover</i>	<i>Buried enclosed in a conduit or pipe</i>
U < 1500V direct current	750 mm	600 mm	500 mm
Alternating current U ≤ 1kV	750 mm	600 mm	500 mm
1kV a.c. or 1500V d.c. < U ≤ 22kV	900 mm	750 mm	750 mm
22kV < U ≤ 66kV	1000 mm	750 mm	750 mm
66kV < U ≤ 220kV	1000 mm	1000 mm	1000 mm

218 Route of underground lines

- (1) A person who carries out electrical installation work on an underground electric line must record the route of the underground electric line in a legible and permanent form on a durable material and fix that record—

-
- (a) at the main switchboard; or
 - (b) in a position approved by Energy Safe Victoria.
 - (2) A person who makes the record must fix the record in accordance with subregulation (1) before the certificate of compliance for the installation work is signed and—
 - (a) before the electric line is connected to the electricity supply; or
 - (b) if the electrical circuits or electrical equipment handled in the course of the electrical installation work were not disconnected from the electricity supply, before the electrical installation is first used after it is completed; or
 - (c) within 5 business days after carrying out the installation work.
 - (3) The route of the electric line must be recorded as accurately as practicable with a margin of error not exceeding 200 millimetres.
 - (4) A person who carries out electrical installation work on an underground electric line on public land (other than an electric line forming part of a railway) must, before the line is connected to an electricity supply or within 2 business days after relocating the line, give sufficient information to enable every cable of the line to be located and identified to—
 - (a) a person or body specified by Energy Safe Victoria as the asset recording service for the area in which the line is located; or
-

- (b) if no such person or body is so specified, the distribution company for that area.

Note

Section 46 of the Act generally prohibits the construction of electric lines on public land unless an exemption applies.

219 Mechanical protection of underground lines above the ground on public land and on private land not owned or leased by the owner of the line

- (1) Any portion of an underground line on public land or on private land not owned or leased by the owner of the line that is at or above the surface of the ground must be mechanically protected from the point 300 millimetres below where the line exits the ground to a height of 2400 millimetres from any surface accessible to the public.
- (2) The mechanical protection must be one of the following—
 - (a) a cable guard made of mild steel of 2.5 millimetre thickness for a high voltage underground line and 1.6 millimetre thickness for a low voltage underground line and galvanised in accordance with AS/NZS 4680 and AS/NZS 4792;
 - (b) a galvanised steel tube that complies with AS 1074.
- (3) Any portion of an underground line that is more than 2400 millimetres in height from a surface accessible to the public must be enclosed in a non-metallic heavy duty conduit that complies with AS/NZS 2053 or in metallic piping or casing that is effectively earthed if the portion of the underground line is—

- (a) within reach of a person from a window or other accessible part of a building or structure as determined by AS 2067; or
 - (b) high voltage and is not metallically screened.
- (4) This regulation does not apply to the negative conductors of a railway.

Note

Section 46 of the Act generally prohibits the construction of electric lines on public land unless an exemption applies.

220 Private electric lines

- (1) A private electric line that is to be constructed or a private aerial line that is to be substantially reconstructed in a hazardous bushfire risk area must be placed underground.
- (2) A private aerial line to be installed, altered, repaired or maintained must—
 - (a) if it is horizontally constructed with bare open wire conductors, have a conductor spreader fitted to each span of conductor; and
 - (b) be protected at its origin with an over-current protective device (other than a fuse link) that operates in all active conductors and can be operated from the ground.
- (3) If a private electric line or private aerial line crosses water at a point where the water is navigable, there must be affixed a clear and permanent sign warning of the private aerial line erected at the normal high water mark—
 - (a) at all boat ramps providing access to the water; and
 - (b) at all points where the electric line starts crossing the water; and

- (c) at a point that is between 20 and 100 metres before the electric line when approaching the line by water.

221 Emergency restoration of private electric aerial lines in high bushfire risk areas

- (1) A private aerial line in a hazardous bushfire area that has been rendered inoperative by a fault may be substantially reconstructed not in accordance with regulation 220(1) if the installation work responsible person complies with this regulation.
- (2) The installation work responsible person must—
 - (a) prior to the commencement of any reconstruction work—
 - (i) obtain a written undertaking from the owner of the private electric line that the owner will have the private electric line placed underground within 60 days after the date of the undertaking; and
 - (ii) obtain a reference code from Energy Safe Victoria for that work; and
 - (b) within 5 business days after the completion of the reconstruction work, provide Energy Safe Victoria with—
 - (i) a copy of the undertaking referred to in paragraph (a); and
 - (ii) the reference code for that work; and
 - (iii) the certificate of electrical safety for the reconstruction of the private electric line; and
 - (c) carry out that reconstruction work in accordance with regulation 220(2) and (3).

Penalty: 20 penalty units.

- (3) Energy Safe Victoria must as soon as is practicable after being requested to do so by an installation work responsible person provide a reference code for reconstruction work to which subregulation (2) applies to the installation work responsible person.
- (4) The owner of a private electric line reconstructed under subregulation (1) must have that private electric line—
 - (a) placed underground; or
 - (b) disconnected from electricity supply—within 60 days after the date of the undertaking referred to in subregulation (2)(a).
Penalty: 20 penalty units.

222 Construction and maintenance of poles and towers

Poles, towers and other structures supporting aerial lines must—

- (a) be as vertical as is practicable; and
- (b) if located on or near a roadside, not lean over the kerb line in the direction of a vehicular carriageway more than 5 degrees from the perpendicular and not lean in any other direction more than 10 degrees from the perpendicular; and
- (c) if located elsewhere, not lean more than 10 degrees from the perpendicular in any direction.

223 Minimum distances between aerial lines and the ground or water

- (1) A low voltage aerial line on public land or on private land not owned or leased by the owner of the line or a d.c. traction conductor must not, at any time, be closer to—

- (a) the ground; or
- (b) the surface of any water that is not accessible to boats with masts—

than the relevant minimum distance specified in Column 2, 3 or 4 of Table 223.1 for the location of the aerial line specified in Column 1 of that Table.

- (2) A high voltage aerial line at the location specified in Column 1 of Table 223.2 must not, at any time, be closer to—

- (a) the ground; or
- (b) the surface of any water that is not accessible to boats with masts—

than the relevant minimum distance specified for those types of aerial lines in Column 2, 3 or 4 of Table 223.2 opposite those lines.

- (3) An aerial line must not, at any time, be closer than 13 500 millimetres to the surface of any water that is accessible to boats with masts.
- (4) The minimum distances specified in Column 2, 3, or 4 of Tables 223.1 and 223.2 do not apply to a part of an aerial line that is within a substation.
- (5) In Tables 223.1 and 223.2—

arterial road means a road designated as an arterial road in the VicRoads Country Street Directory;

collector road means a road designated as a collector road in the Melways Street Directory but does not include such a road that is also—

- (a) an over-dimensional route; or
- (b) a relevant docks road;

freeway means a road designated as a freeway
in—

- (a) the Melways Street Directory; or
- (b) the VicRoads Country Street Directory;

major road means a road designated as a major
road in the Melways Street Directory but
does not include such a road that is also—

- (a) an over-dimensional route; or
- (b) a relevant docks road;

over-dimensional route means a road designated
as an over-dimensional route in the Melways
Street Directory;

primary state arterial road means a road
designated as a primary state arterial road in
the Melways Street Directory;

road means a road shown in—

- (a) the Melways Street Directory; or
- (b) VicRoads Country Street Directory;

relevant docks road means any of the following
roads or streets—

- (a) Anderson Road, West Melbourne;
- (b) Appleton Dock Road, West Melbourne;
- (c) Coode Road, West Melbourne;
- (d) Cowper Street, Footscray;
- (e) Dock Link Road, West Melbourne;
- (f) Gibbons Street, West Melbourne;
- (g) MacKenzie Road, West Melbourne;
- (h) Phillipps Road, West Melbourne;

secondary state arterial road means a road designated as a secondary state arterial road in the Melways Street Directory but does not include such a road that is also an over-dimensional route;

tollway means a road designated as a tollway in the Melways Street Directory.

TABLE 223.1—Minimum distances to the ground or water surface from low voltage aerial lines on public land or within an easement on private land or traction conductors

<i>Column 1</i>	<i>Type of aerial line</i>		
	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Location of aerial line</i>	<i>Bare live conductors</i>	<i>Insulated live conductors</i>	<i>Direct current traction conductors</i>
<i>Minimum distance to ground or surface of water</i>			
Over a 2000 mm wide strip in the centre of each carriageway of a road	5500 mm	5500 mm	5000 mm
Over any other part of a freeway, tollway, primary state arterial road, arterial road, overdimensional route or relevant docks road	5500 mm	5500 mm	5000 mm
Over any other part of a secondary state arterial road, major road or collector road	5500 mm	4900 mm	5000 mm
Over any other part of any other road	5500 mm	4600 mm	5000 mm
Over any part of a driveway	5500 mm	4600 mm	5000 mm
Over any other ground traversable by vehicles (other than a road)	5500 mm	4600 mm	5000 mm

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 2—Electrical Installation Work

r. 223

<i>Column 1</i>	<i>Type of aerial line</i>		
	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Location of aerial line</i>	<i>Bare live conductors</i>	<i>Insulated live conductors</i>	<i>Direct current traction conductors</i>
<i>Minimum distance to ground or surface of water</i>			
At the connection to a building or structure (excluding a pole)	Not permitted	3000 mm	Not permitted
Over the surface of any water not accessible to boats with masts	4500 mm	4500 mm	4500 mm
Elsewhere	5000 mm	3000 mm	4500 mm

TABLE 223.2—Minimum distances to the ground or water surface from high voltage aerial lines

<i>Column 1</i>	<i>Minimum distance</i>		
	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Type of aerial line</i> <i>Nominal voltage ("U")</i>	<i>Carriageway of roads</i>	<i>Ground traversable by vehicles (other than a road)</i>	<i>Other ground or the surface of any water not accessible to boats with masts</i>
Alternating current insulated with earthed screen $U > 1\text{kV}$	5500 mm	5500 mm	4500 mm
Alternating current insulated without an earthed screen $U > 1\text{kV}$	6000 mm	5500 mm	4500 mm
<i>Bare or covered</i> 1kV a.c or 1500V d.c. $< U \leq 33\text{kV}$	6700 mm	5500 mm	5000 mm
<i>Bare or covered</i> $33\text{kV} < U \leq 132\text{kV}$	6700 mm	6700 mm	5500 mm

r. 224

Column 1	Minimum distance		
	Column 2	Column 3	Column 4
Type of aerial line Nominal voltage ("U")	Carriageway of roads	Ground traversable by vehicles (other than a road)	Other ground or the surface of any water not accessible to boats with masts
<i>Bare or covered</i>			
132kV < U ≤ 275kV	8700 mm	7500 mm	6700 mm
<i>Bare or covered</i>			
275kV < U ≤ 330kV	9700 mm	8000 mm	6700 mm
330kV < U ≤ 500kV	11 400 mm	10 700 mm	10 700 mm

224 Aerial lines and the façade of buildings

- (1) An aerial line on public land or on private land not owned or leased by the owner of the line, other than a low voltage insulated conductor must not, at any time, be attached to the façade of any building.
- (2) A low voltage insulated conductor on public land or on private land not owned or leased by the owner of the line, must not, at any time, be closer to a part of a building or structure specified in Column 1 of Table 224 than the relevant minimum distance specified in Column 2 of Table 224 opposite that conductor.
- (3) Figures 224.1, 224.2 and 224.3 are for illustrative purposes only and are not intended to be a comprehensive depiction of the situations they illustrate.

TABLE 224—Minimum distances to parts of buildings or structures from low voltage insulated conductors supported along the façade of the building or structure

	<i>Column 1</i> <i>Low voltage insulated conductor</i>	<i>Column 2</i> <i>Minimum distance</i>
A	Vertically from ground	2500 mm
B	Above windows and doors	300 mm
C	Each side of and below windows	500 mm
D	Each side of doors and balconies	1000 mm
E	From metallic parts	50 mm

Figure 224.1

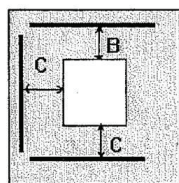


Figure 224.2

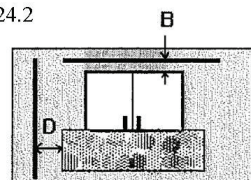
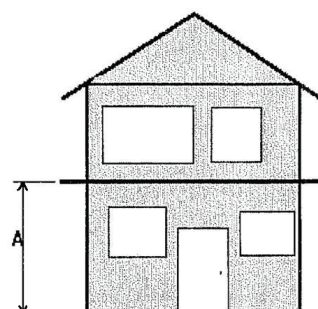


Figure 224.3



225 Minimum distances between aerial lines and buildings or structures

- (1) An aerial line carrying alternating current at a voltage set out in Row V of Table 225.1 must not, at any time, be closer to a building or structure or part of a building or structure specified in Rows A to D in Column 1 of Table 225.1 than the relevant minimum distance specified for that type of aerial line in Column 2, 3, 4, 5, 6, 7 or 8 for the relevant Row of that Table.

-
- (2) An aerial line carrying direct current at a voltage set out in Row V of Table 225.2 must not, at any time, be closer to a building or structure or part of a building or structure specified in Row A to E in Column 1 of Table 225.2 than the relevant minimum distance specified for that type of aerial line in Column 2, 3 or 4 for the relevant Row of that Table.
- (3) The minimum distances in Rows A, B, C and D of Tables 225.1 and 225.2 do not apply to the connection of an aerial line to a pole, tower or substation.
- (4) The minimum distances in Rows B, C and D of Tables 225.1 and 225.2 do not apply to—
- (a) that part of an aerial line close to a building or structure for the purposes of supplying electricity to the building or structure; or
 - (b) low voltage insulated conductors attached to the façade of any building or structure; or
 - (c) high voltage insulated conductors attached to a part of a building or structure on private land that is—
 - (i) not the façade of that building or a part of that building; or
 - (ii) not adjoining a public way or space.
- (5) Figures 225.1 and 225.2 are for illustrative purposes only and are not intended to be a comprehensive depiction of the situations they illustrate.

Note

Row labels contained in Tables 225.1 and 225.2 correspond with letters shown in figures 225.1 and 225.2.

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 2—Electrical Installation Work

r. 225

**TABLE 225.1—Minimum distances to parts of buildings or structures
from aerial lines carrying alternating current**

<i>Minimum distance for type of aerial line and nominal voltage ("U")</i>							
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>	<i>Column 6</i>	<i>Column 7</i>	<i>Column 8</i>
<i>Alternating current aerial line</i>	<i>Insulated with earthed screen</i>	<i>Insulated without earthed screen</i>	<i>Bare or covered</i>	<i>Bare</i>	<i>Bare</i>	<i>Bare</i>	<i>Bare</i>
Row V Voltage							
	U>1kV	U>1kV	1kV < U ≤ 33kV	33kV < U ≤ 132kV	132kV < U ≤ 275kV	275kV < U ≤ 330kV	330kV < U ≤ 500kV
Row A Vertically above those parts of a building or structure normally accessible to persons	2700 mm	3700 mm	4500 mm	5000 mm	6800 mm	8000 mm	9800 mm
Row B Vertically above those parts of a building or structure not normally accessible to persons but on which a person can stand	100 mm	2700 mm	3700 mm	4500 mm	6000 mm	7000 mm	8000 mm
Row C In any direction, other than vertically above, from those parts of a building or structure normally accessible to persons, or from any part not normally accessible to persons but on which a person can stand	100 mm	1500 mm	2100 mm	3000 mm	4600 mm	5500 mm	6400 mm
Row D In any direction from those parts of a building or structure not normally accessible to persons	100 mm	600 mm	1500 mm	2500 mm	3700 mm	4700 mm	6400 mm

TABLE 225.2—Minimum distances to parts of buildings or structures from aerial lines carrying direct current

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
	<i>Minimum distance for type of aerial line and nominal voltage ("U")</i>		
Row V	U ≤ 600V	U ≤ 600V	600V < U ≤ 1500V
<i>Direct current aerial line</i>	<i>Insulated</i>	<i>Bare</i>	<i>Bare or insulated</i>
Row A			
Vertically above those parts of a building or structure normally accessible to persons	2700 mm	3700 mm	4500 mm
Row B			
Vertically above those parts of a building or structure not normally accessible to persons but on which a person can stand	100 mm	2700 mm	3700 mm
Row C			
In any direction, other than vertically above, from those parts of a building or structure normally accessible to persons or vertically below as described in row E, or from any part not normally accessible to persons but on which a person can stand	100 mm	1500 mm	2100 mm
Row D			
In any direction, other than vertically below as described in row E, from those parts of a building or structure not normally accessible to persons	100 mm	600 mm	1500 mm

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 2—Electrical Installation Work

r. 225

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Direct current aerial line</i>	<i>Insulated</i>	<i>Bare</i>	<i>Bare or insulated</i>
Row E Vertically below those parts of a building or structure erected over a small gauge railway or tramway system	100 mm	300 mm	300 mm

Figure 225.1

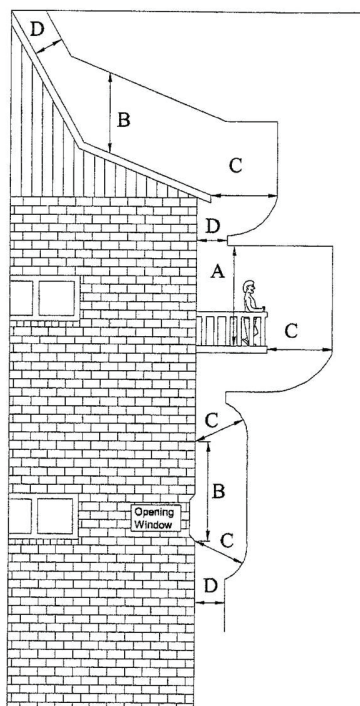
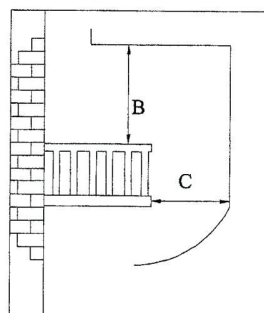


Figure 225.2



226 Minimum distances between aerial lines and parts of small gauge train systems

- (1) A high voltage aerial line carrying alternating current above a direct current catenary wire or supervisory cable for a d.c. traction conductor for a small gauge train system 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.
- (2) An aerial line carrying alternating current at a voltage set out in Column 1 of Table 226 must not, at any time, be closer to a part of a small gauge train system specified in Row A in Column 2, 3 or 4 of the Table than the relevant minimum distance specified for that part in Column 2, 3 or 4 of that Table opposite the corresponding voltage.

TABLE 226—Minimum distances to parts of small gauge railway systems from aerial lines carrying alternating current

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
	<i>Minimum distance from part of a small gauge railway system</i>			
Row A	Alternating current aerial line Nominal voltage ("U")	Above track	From d.c. traction conductors	From d.c. traction conductor wire/cable supports
Row B	$U \leq 1\text{kV}$	6700 mm	Not permitted	2700 mm
Row C	$1\text{kV} < U \leq 22\text{kV}$	7600 mm	1200 mm	3700 mm
Row D	$22\text{kV} < U \leq 66\text{kV}$	7600 mm	1800 mm	4600 mm
Row E	$66\text{kV} < U \leq 132\text{kV}$	7900 mm	2100 mm	4600 mm
Row F	$132\text{kV} < U \leq 275\text{kV}$	9000 mm	3000 mm	5500 mm
Row G	$275\text{kV} < U \leq 330\text{kV}$	9800 mm	4000 mm	6400 mm
Row H	$330\text{kV} < U \leq 500\text{kV}$	11 300 mm	5500 mm	7900 mm

227 Minimum distances between aerial lines and parts of small gauge tram systems

An aerial line carrying alternating current at a voltage set out in Column 1 of Table 227 must not, at any time, be closer to a part of a small gauge tram system specified in Row A in Column 2, 3 or 4 of the Table than the relevant minimum distance specified for that part in Column 2, 3 or 4 of that Table opposite the corresponding voltage.

TABLE 227—Minimum distances to parts of small gauge tramway systems from aerial lines carrying alternating current

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
	<i>Minimum distance from part of a small gauge tramway system</i>			
Row A				From d.c. traction conductor wire/cable supports
	Alternating current aerial line Nominal voltage ("U")	Above track	From d.c. traction conductors	
Row B	$U \leq 1\text{kV}$	7000 mm	600 mm	2700 mm
Row C	$1\text{kV} < U \leq 22\text{kV}$	8200 mm	1200 mm	3700 mm
Row D	$22\text{kV} < U \leq 66\text{kV}$	8200 mm	1800 mm	4600 mm
Row E	$66\text{kV} < U \leq 132\text{kV}$	8200 mm	2100 mm	4600 mm
Row F	$132\text{kV} < U \leq 220\text{kV}$	9000 mm	3000 mm	5500 mm
Row G	$220\text{kV} < U \leq 330\text{kV}$	9800 mm	4000 mm	6400 mm
Row H	$330\text{kV} < U \leq 500\text{kV}$	11 300 mm	5500 mm	7900 mm

228 Minimum distances between aerial lines

- (1) An aerial line set out in Rows C to G Column 1 or 2 of Table 228 that forms part of—
 - (a) a high voltage electrical installation; or

(b) the supply network of a small gauge railway—

must not, at any time, be closer to an aerial line specified in the same Row as that line than the relevant minimum distance specified in Column 3, 4 or 5 for the relevant Row of the Table for the location of the aerial line specified in Row B in those columns.

- (2) The nominal voltage of the lower circuit of an aerial line must not be greater than the nominal voltage of the upper circuit of an aerial line.
- (3) A d.c. traction conductor for a small gauge tram system must not, at any time, cross an electrolysis drainage cable, unless the conductor and the cable are attached to a common pole or support.

TABLE 228—Minimum distances between aerial lines

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>
<i>Row A</i>	<i>Type and nominal voltage ("U")</i>		<i>Minimum distance</i>		
<i>Row B</i>			<i>Between the aerial line spans. Circuits on the same pole line</i>	<i>Between the points where the aerial lines are attached to a common pole or support</i>	<i>Between the aerial line spans. Circuits crossing not on same pole line</i>
	<i>Upper circuit</i>	<i>Lower circuit</i>			
Row C	Low voltage alternating current aerial line	d.c. traction conductor $U \leq 1500V$	1000 mm	1000 mm	1000 mm
Row D	d.c. traction conductor $U \leq 1500V$	Electrolysis drainage cable	1000 mm	1000 mm	Not permitted
Row E	d.c. traction conductor $U \leq 1500V$	Other cable system	1000 mm	1000 mm	1000 mm

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>
<i>Row A</i>	<i>Type and nominal voltage ("U")</i>		<i>Minimum distance</i>		
<i>Row B</i>			<i>Between the aerial line spans. Circuits on the same pole line</i>	<i>Between the points where the aerial lines are attached to a common pole or support</i>	<i>Between the aerial line spans. Circuits crossing not on same pole line</i>
	<i>Upper circuit</i>	<i>Lower circuit</i>			
<i>Row F</i>	Alternating current aerial line $U > 1\text{kV}$ $U \leq 33\text{kV}$	Alternating current aerial line $U \leq 33\text{kV}$	1200 mm	1200 mm	750 mm
<i>Row G</i>	Alternating current aerial line $U > 33\text{kV}$ $U \leq 66\text{kV}$	Alternating current aerial line $U \leq 66\text{kV}$	1800 mm	1800 mm	1200 mm

229 Minimum distance from the ground for substations

The minimum distance from the ground for any part of the supporting platform and equipment (except conductors) for a pole mounted substation that is mounted on or attached to a pole or a crossarms of a pole is—

- (a) if the substation is more than 500 millimetres from the vertical projection of the kerb line (in the direction away from a vehicular carriageway) and that substation is more than 200 millimetres from the surface of the pole, no less than 3600 millimetres from the ground; and
- (b) if the substation is more than 500 millimetres from the vertical projection of the kerb line (in the direction away from a vehicular carriageway) and that substation is

200 millimetres or less from the surface of the pole, no less than 2400 millimetres from the ground; and

- (c) if the substation is in any other circumstances not covered by paragraph (a) or (b), no less than 4600 millimetres from the ground.

230 Marking of electric lines

If aerial lines are within the vicinity of an airport or airfield, the lines must be marked to indicate their position and direction in accordance with AS 3891.1 and AS 3891.2.

Division 2—Testing of electrical installation work

231 Testing

- (1) For the purposes of section 44(1)(b) of the Act, electrical installation work (other than high voltage installation work) must be tested in accordance with the Australian/New Zealand Wiring Rules to verify that the installation work complies with Division 1 after the work is completed and before certification or inspection of the work under the Act.
- (2) For the purposes of section 44(1)(b) of the Act, high voltage electrical installation work must be tested in accordance with AS 2067 and section K14 (excluding clause K14.7) of Appendix K of the Australian/New Zealand Wiring Rules to verify that the installation work complies with Division 1 after the work is completed and before certification or inspection of the work under the Act.
- (3) For the purposes of section 44(1)(b) of the Act, high voltage electrical installation work carried out on the earthing systems of substations and

high voltage electrical installations must be tested to ensure that—

- (a) the resistance to earth is not greater than is required by AS 2067; and
 - (b) the earthing connections will maintain their conductivity; and
 - (c) the earth potential rise does not exceed that required by AS 2067.
- (4) For the purposes of section 44(1)(b) of the Act, the testing must be carried out by—
- (a) a licensed electrician; or
 - (b) a person who is licensed to carry out the electrical installation work; or
 - (c) in the case of the testing set out in subregulation (2) and (3), a competent person.

Division 3—Electricity suppliers

232 Safety services

An electricity supplier must not require a person to install protective equipment between the point of supply and any main switches for safety services.

Penalty: 20 penalty units.

233 Earthing and electrical protection up to protective equipment

An electricity supplier must ensure that earthing and protection systems isolate unsafe electrical conditions up to the protective equipment of the electrical installations they supply.

Penalty: 20 penalty units.

234 Service lines and electricity supplies

An electricity supplier must ensure that the supplier's service lines and low voltage electricity supplies provided from the supplier's substations—

- (a) contain a neutral conductor that is—
 - (i) continuous from any point of supply to the neutral terminal of the substation it is connected to; and
 - (ii) easily indentified; and
 - (iii) verified as being a neutral conductor; and
- (b) are protected by protective equipment, installed in accordance with regulation 235, that can isolate each of the active conductors of an electrical installation.

Penalty: 20 penalty units.

235 Installation of protective equipment

- (1) In the case of an aerial line, protective equipment must be installed—
 - (a) at, or next to, the point of supply; or
 - (b) at, or next to, any point where an unmetered consumers mains is attached to the consumer's premises; or
 - (c) at any pole to which a consumers mains is attached; or
 - (d) at the electricity supplier's pole to which a service line is connected.

-
- (2) In the case of an underground line, protective equipment must be installed—
- (a) at, or next to, the point where the consumers mains is connected to the electricity supplier's supply main; or
 - (b) at, or within 3000 millimetres of, the point where the consumers mains is connected to the electricity supplier's supply main; or
 - (c) if an aerial service line has been converted to an underground line, at the point where the aerial service line was connected to the consumer's premises; or
 - (d) at or next to the electricity supplier's metering equipment located at the consumer's premises, but only if the unmetered portion of the consumers mains that runs from the property boundary to the building or structure housing the metering equipment is suitable for use underground and—
 - (i) of a double insulated construction; or
 - (ii) surrounded by a neutral screen.
- (3) In the case of electricity supplies provided directly from a substation, protective equipment must be installed within the substation.

236 Suppliers must ensure use of double insulation

An electricity supplier must ensure that the conductor insulation of any of its aerial lines that are service lines must be comprised of double insulation or reinforced insulation.

Penalty: 20 penalty units.

237 Supply of electricity to premises

- (1) An electricity supplier must not supply electricity to premises (by way of an overhead service line) unless that service line is—
 - (a) securely attached to the premises and to any pole that supports the service line; and
 - (b) insulated in accordance with regulation 236; and
 - (c) is not readily accessible to persons.

Penalty: 20 penalty units.

- (2) An electricity supplier must not supply electricity to premises (by way of an overhead service line) unless any metallic structure or part of the building that supports the service line is effectively bonded in accordance with regulation 212.

Penalty: 20 penalty units.

- (3) Subregulation (2) does not apply to the replacement of an existing service line unless electrical installation work is being carried out on the premise's consumer's mains, consumer's terminals or any metallic structure or part of the building that supports the service line.

Division 4—Inspection of electrical installation work

238 Prescribed electrical installation work

- (1) For the purposes of section 45 of the Act, ***prescribed electrical installation work*** means work on all or part of any of the following electrical installations if they are ordinarily operated at low voltage or a voltage exceeding low voltage—

-
- (a) consumer's mains, main earthing systems, consumer's terminals connection devices, any supports for overhead service lines (including any poles) and those parts of main switchboards that are related to the control of installations and the protection against the spread of fire;
 - (b) if a main switchboard or a replacement main switchboard is connected for the first time, any circuit protective devices, switchgear, controlgear, circuit breakers and wiring systems of that main switchboard in place at the time that the items set out in paragraph (a) are inspected;
 - (c) sub-mains, earthing systems and any distribution boards related to the control of individual occupiers' portions of multiple installations;
 - (d) if a distribution board related to the control of individual occupiers' portion of a multiple installation, or a replacement distribution board related to the control of individual occupiers' portion of a multiple installation, is connected for the first time, any circuit protective devices, switchgear, controlgear, circuit breakers and wiring systems of that distribution board in place at the time the items set out in paragraph (c) are inspected;
 - (e) high voltage installations, except high voltage electrical equipment that is—
 - (i) associated with an electric discharge lighting system; or
 - (ii) associated with X-ray equipment; or
-

- (iii) associated with high frequency equipment; or
 - (iv) within self contained equipment supplied at low voltage;
 - (f) wiring systems, switchgear, controlgear and accessories installed to provide control and protection of generation systems (excluding stand-alone power systems with a power rating that is less than 500 volt-amperes);
 - (g) electric fences used for security purposes but not including electric fences intended primarily for the containment of animals;
 - (h) electrical equipment installed in a hazardous area and electrical equipment associated with the protection of a hazardous area but not installed within the hazardous area;
 - (i) circuit protective devices, switchgear, controlgear, wiring systems and accessories (other than fire detection and alarm systems) installed to provide control and protection of passenger lifts, fire pumps (excluding pumps for fire hose reels where those hose reels are not the sole means of fire protection) and air handling systems intended to exhaust and control the spread of fire and smoke;
 - (j) a part 1 solution installed in an electrical installation.
- (2) For the purposes of section 45 of the Act, ***prescribed electrical installation work*** means work on all or part of any fixed electrical equipment operated at any voltage installed in a patient area.

-
- (3) For the purposes of section 45 of the Act, ***prescribed electrical installation work*** does not include—
- (a) the repair or maintenance of a single component part of an electrical installation; or
 - (b) the replacement of a single component part of an electrical installation by an equivalent component part at the same location.
- (4) A single component referred to in subregulation (3) includes any terminating device required to connect that single part of an electrical installation to the electricity supply.

239 Inspection of prescribed electrical installation work

- (1) For the purposes of section 45(1) of the Act, prescribed electrical installation work must be inspected by a licensed electrical inspector within 8 business days after the completion of that work.
- (2) A licensed electrical inspector must not inspect prescribed electrical installation work unless—
- (a) the inspector has a copy of the certificate of compliance for that electrical installation work which is signed by the person who carried out the work; and
 - (b) the certificate contains a detailed description of all of the prescribed electrical installation work to be inspected.

Penalty: 20 penalty units.

240 Certificates of inspection

For the purposes of section 45(4)(d) of the Act, the certificate of inspection must contain all the details required by the certificate of electrical safety.

241 Details to be accurate and legible—certificate of inspection

A licensed electrical inspector must ensure that the details required by regulation 240 are complete, accurate and legible on each copy of the certificate of inspection.

Penalty: 20 Penalty units.

242 Obligations of licensed electrical inspectors

- (1) A licensed electrical inspector must not sign a certificate of inspection unless that inspector—
 - (a) has attended at the electrical installation address stated on the certificate of compliance; and
 - (b) has carried out inspection of the electrical installation in accordance with the Australian/New Zealand Wiring Rules and these Regulations; and
 - (c) has carried out testing of the electrical installation in accordance with regulation 231; and
 - (d) in circumstances where the inspector knows or should be reasonably expected to know that the premises or land related to the electrical installation work being inspected will be electrically unsafe to connect to electricity supply or unsafe to use, has stated on the certificate of inspection that the installation appears to be electrically unsafe.

Penalty: 20 penalty units.
- (2) In the case of high voltage installation work, a licensed electrical inspector may comply with subregulation (1)(c) by witnessing a licensed electrician or a competent person carrying out those tests.

243 Notification of completion of certificate of inspection

- (1) A licensed electrical inspector who carries out an inspection of prescribed electrical installation work must, in accordance with this regulation, give to Energy Safe Victoria electronic notification of completion of the certificate of inspection within 4 business days after completion of that inspection.

Penalty: 20 penalty units.

- (2) The notification must be given in a manner approved by Energy Safe Victoria.

244 Licensed electrical inspectors must retain a copy of certificates of inspection

If a licensed electrical inspector issues a paper certificate of inspection, the inspector must retain a copy of that certificate of inspection for 3 years after the date the inspector signed the certificate.

Penalty: 20 penalty units.

245 Licensed electrical inspectors must not inspect their own work

A licensed electrical inspector inspecting the prescribed electrical installation work must not be the licensed electrical installation worker who carried out the work or the installation work responsible person in relation to that work.

Penalty: 20 penalty units.

246 Licensed electrical inspectors must not inspect work if involved with the design of the work

- (1) A licensed electrical inspector inspecting prescribed electrical installation work must not be a person who was involved in the design of that electrical installation work.

Penalty: 20 penalty units.

- (2) In subregulation (1) *design* does not include advice in relation to the requirements of—
- (a) the Act; or
 - (b) these Regulations.

247 Installation work responsible person must not use an employee to inspect any work they are responsible for

A installation work responsible person must ensure that the licensed electrical inspector inspecting any prescribed electrical installation work that they are responsible for is not a person who is employed by—

- (a) the installation work responsible person; or
- (b) a related body corporate of the installation work responsible person.

Penalty: 20 penalty units.

248 Notification of defects by inspectors

If prescribed electrical installation work that has been inspected by a licensed electrical inspector does not comply with Division 3 of Part 3 of the Act or this Part, the inspector who has inspected the work must notify the installation work responsible person of the defects relating to the work within 4 business days after the inspection.

Penalty: 20 penalty units.

249 Inspector must note defects on certificate of inspection

- (1) For the purposes of section 45(4)(d) of the Act, a licensed electrical inspector who has inspected prescribed installation work that does not comply with Division 3 of Part 3 of the Act or this Part must complete the defects section on the certificate of inspection.

- (2) Despite subregulation (1), a licensed electrical inspector is not required to record any defects in the work on the customer's copy of the certificate of inspection if the defects in the work are rectified at the time of the inspection.

250 Notification of defects by Energy Safe Victoria

- (1) If Energy Safe Victoria is satisfied that electrical installation work does not comply with the Act or these Regulations, Energy Safe Victoria may notify the installation work responsible person or the electrical installation worker who carried out the work of the defects in the work.
- (2) For the purposes of subregulation (1), Energy Safe Victoria may have regard to a certificate of inspection or carry out its own inspection of electrical installation work.
- (3) An electrical contractor or electrical installation worker who is notified under subregulation (1) must, within 4 business days after receipt of the notice, forward a copy of the notice to the person for whom the work was carried out.

Penalty: 20 penalty units.

251 Certificates of compliance

- (1) For the purposes of section 44(3)(c) of the Act, a certificate of compliance must contain all the details required by the certificate of electrical safety.
- (2) Despite subregulation (1), detail as to the maximum demand of the installation at the time of completion of the work in amps per phase need only be completed if the work has increased the maximum demand of the installation.

- (3) Despite subregulation (1), detail as to the consumers mains capacity of the installation in amps need only be completed if the work has increased the maximum demand of the installation.

252 Details to be accurate and legible—certificate of compliance

A licensed electrical installation worker must ensure that the details required by regulation 251 are complete, accurate and legible on each copy of the certificate of compliance.

Penalty: 20 penalty units.

253 Notification of completion of certificate of compliance

- (1) The person who is responsible for the carrying out of electrical installation work must, in accordance with this regulation, give electronic notification of completion of the certificate of compliance (other than a certificate of compliance that is part of a periodic certificate of electrical safety) to Energy Safe Victoria within 2 business days after that completion.

Penalty: 20 penalty units.

- (2) The notification must be given in a manner approved by Energy Safe Victoria.

254 Installation work responsible person must retain a copy of certificates of compliance

If an installation work responsible person issues a paper certificate of compliance, the installation work responsible person must retain a copy of that certificate of compliance for 3 years after the date the installation work responsible person signed the certificate.

Penalty: 20 penalty units.

255 Authorised amount—certificates of electrical safety

For the purposes of section 45B(12) of the Act, the authorised amount is—

- (a) 2·2 fee units for an electronic certificate of electrical safety form relating to prescribed electrical installation work; or
- (b) 2·4 fee units for a paper certificate of electrical safety form relating to prescribed electrical installation work; or
- (c) 55·6 fee units for a periodic certificate of electrical safety form; or
- (d) \$6.50 for any other electronic certificate of electrical safety form; or
- (e) \$7.10 for any other paper certificate of electrical safety form.

Division 5—Reporting and records

256 Reporting of incidents

- (1) If a serious electrical incident occurs, the following persons must, as soon as practicable, report all of the details of the incident within their knowledge to Energy Safe Victoria—
 - (a) an electrical worker who becomes aware of a serious electrical incident relating to work carried out by that worker;
 - (b) an operator of a high voltage electrical installation who becomes aware of any serious electrical incident occurring within that electrical installation;
 - (c) an operator of a complex electrical installation who becomes aware of any serious electrical incident occurring within that complex electrical installation;

- (d) an operator of a railway who becomes aware of any serious electrical incident occurring in relation to an electrical installation associated with that railway;
- (e) an operator of a small gauge railway who becomes aware of any serious electrical incident occurring in relation to an electrical installation associated with that small gauge railway;
- (f) any other installation work responsible person who becomes aware of a serious electrical incident relating to work for which that person is responsible for carrying out.

Penalty: 10 penalty units.

- (2) A person referred to in subregulation (1) must, within 20 business days after the incident, send a written report of the incident to Energy Safe Victoria.

Penalty: 10 penalty units.

- (3) If an incident occurs involving electricity in which a person has made accidental contact with any electrical installation or received an electric shock as the result of direct or indirect contact with any electrical installation, the following persons must, within 20 business days after the incident, send a written report to Energy Safe Victoria of all of the details within their knowledge regarding the incident—
 - (a) an electrical worker who becomes aware of such an incident relating to work carried out by that worker;
 - (b) an operator of a high voltage electrical installation who becomes aware of such an incident occurring within that electrical installation;

- (c) an operator of a complex electrical installation who becomes aware of any serious electrical incident occurring within that complex electrical installation;
- (d) an operator of a railway who becomes aware of any serious electrical incident occurring in relation to an electrical installation associated with that railway;
- (e) an operator of a small gauge railway who becomes aware of any serious electrical incident occurring in relation to an electrical installation associated with that small gauge railway;
- (f) any other installation work responsible person who becomes aware of such an incident relating to work for which that person is responsible for carrying out.

Penalty: 10 penalty units.

- (4) This regulation does not apply to a major electricity company.

257 Reporting of incidents—fire control authorities

- (1) For the purposes of section 142(3) of the Act, a fire control authority must—
 - (a) as soon as is practicable report to Energy Safe Victoria by telephone, on a telephone number specified by Energy Safe Victoria, all of the details of the serious electrical incident within its knowledge; and
 - (b) on a monthly basis, send to Energy Safe Victoria a written report containing all details within its knowledge regarding any fire that it believes to be of an electrical nature that occurred in the previous month; and

- (c) on a monthly basis, send to Energy Safe Victoria a written report containing all details within its knowledge regarding any incident in the previous month involving electricity in which a person—
 - (i) made accidental contact with any live electric line or live electrical equipment; or
 - (ii) received an electric shock as a result of direct or indirect contact with any supply network or electrical installation; and
- (d) as soon as is practicable, send to Energy Safe Victoria the results of any investigation into any fire or incident involving, or suspected to involve, electricity.

258 Records to be maintained

An electricity supplier that has received a certificate of inspection referred to in section 45(2) of the Act must retain a copy of the certificate, together with a record of the date the supplier connected the installation to the electricity supply, for 3 years after the date of the certificate.

Penalty: 20 penalty units.

PART 3—ELECTRICAL SAFETY DUTIES

Division 1—Duties of owners and operators of high voltage electrical installations, complex electrical installations and supply networks of small gauge railways

301 General duties—high voltage electrical installations

- (1) A person who owns or operates a high voltage electrical installation that is not a complex electrical installation (an *owner or operator*) must ensure that—
- (a) the installation or the installed, altered, repaired or maintained portion of the installation complies with Division 1 of Part 2; and
 - (b) any portion of the high voltage electrical installation using direct current does not leak stray electrical currents into the ground; and
 - (c) the electrical installation is safe and maintained and operated safely; and
 - (d) an assessment of the owner or operator's compliance with the requirements of subregulation (2) is carried out by a competent person at least once every two years.

Penalty: 20 penalty units.

- (2) A person who owns or operates a high voltage electrical installation that is not a complex electrical installation (an *owner or operator*) must ensure that—

- (a) any person operating the electrical installation has a standard of qualifications, proficiency and experience that enables that person to safely perform their function; and
- (b) any person operating or maintaining the electrical installation has written operating and maintenance procedures that describe the methods of operation, maintenance, earthing, isolation, energisation and de-energisation of the electrical installation; and
- (c) any person operating or maintaining any part of the electrical installation is trained, authorised and instructed to perform the work on the electrical installation in accordance with the owner or operator's operating and maintenance procedures; and
- (d) any person under the control of the owner or operator who is working on or near the electrical installation—
 - (i) is appropriately trained in accordance with the Blue Book and aware of the requirements of the Blue Book; and
 - (ii) complies with the provisions of the Blue Book that apply to the work that the person is carrying out; and
- (e) an Electrical Access Authority for work on the electrical installation, as required by the Blue Book, is used by any person under the control of the owner or operator who is working on or near the electrical installation.

Penalty: 20 penalty units.

302 General duties—complex electrical installations

- (1) For the purposes of section 75 of the Act, a person who owns or operates a complex electrical installation (an *owner or operator*) must ensure that—
- (a) the complex electrical installation or the installed, altered, repaired or maintained portion of the complex electrical installation complies with Division 1 of Part 2; and
 - (b) any portion of the complex electrical installation using direct current does not leak stray electrical currents into the ground; and
 - (c) an assessment of the owner or operator's compliance with the requirements of subregulation (2) is carried out by a competent person at least once every two years.
- (2) For the purposes of section 75 of the Act, a person who owns or operates a complex electrical installation (an *owner or operator*) must ensure that—
- (a) any person operating the complex electrical installation has a standard of qualifications, proficiency and experience that enables that person to safely perform their function; and
 - (b) any person operating or maintaining the complex electrical installation has written operating and maintenance procedures that describe the methods of operation, maintenance, earthing, isolation, energisation and de-energisation of the complex electrical installation; and

- (c) any person operating or maintaining any part of the complex electrical installation is trained, authorised and instructed to perform the work on the complex electrical installation in accordance with the owner or operator's operating and maintenance procedures; and
- (d) any person under the control of the owner or operator who is working on or near a part of the complex electrical installation that is operating at high voltage—
 - (i) is appropriately trained in accordance with the Blue Book and aware of the requirements of the Blue Book; and
 - (ii) complies with the provisions of the Blue Book that apply to the work that the person is carrying out; and
- (e) an Electrical Access Authority for work on the electrical installation, as required by the Blue Book, is used by any person under the control of the owner or operator who is working on or near a part of the complex electrical installation that is operating at high voltage.

303 General duties—small gauge railways

- (1) A person who owns or operates the supply network of a small gauge railway (an *owner or operator*) must ensure that—
 - (a) the supply network or the installed, altered, repaired or maintained portion of the supply network complies with Division 1 of Part 2; and
 - (b) the small gauge railway is designed, installed, operated and maintained in such a manner as to minimise the risks to safety of any person and the risks of damage to

property arising from the leakage of stray electrical currents from that small gauge railway; and

- (c) the supply network is safe and maintained and operated safely; and
- (d) an assessment of the owner or operator's compliance with the requirements of subregulation (2) is carried out by a competent person at least once every two years.

Penalty: 20 penalty units.

- (2) A person who owns or operates the supply network of a small gauge railway (an ***owner or operator***) must ensure that—
- (a) any person operating the supply network of the system has a standard of qualifications, proficiency and experience that enables that person to safely perform their function; and
 - (b) any person operating or maintaining the supply network of the system has written operating and maintenance procedures that describe the methods of operation, maintenance, earthing, isolation, energisation and de-energisation of the supply network of the system; and
 - (c) any person operating or maintaining any part of the supply network of the system is trained, authorised and instructed to perform the work on the supply network of the system in accordance with the owner or operator's operating and maintenance procedures; and
 - (d) any person under the control of the owner or operator who is working on or near a supply network of the system that is operating at high voltage—
-

- (i) is appropriately trained in accordance with the Blue Book and aware of the requirements of the Blue Book; and
- (ii) complies with the provisions of the Blue Book that apply to the work that the person is carrying out; and
- (e) an Electrical Access Authority for work on the supply network of the system, as required by the Blue Book, is used by any person under the control of the owner or operator who is working on or near a supply network of the system that is operating at high voltage.

Penalty: 20 penalty units.

Division 2—Duties of the public

304 Application

- (1) A person may do any thing that is otherwise prohibited by regulations 305 to 321 (excluding regulation 318(3)) if the person—
 - (a) does that thing when the relevant installation is isolated and earthed by the owner or operator of the installation; and
 - (b) does that thing with the written permission of the owner or operator of the relevant installation; and
 - (c) complies with any conditions imposed by the owner or operator in giving the permission.
- (2) Subregulation (1)(a) does not apply to the supply network of—
 - (a) a major electricity company; or
 - (b) an interstate electricity supplier.

305 Sporting activities

A person must not throw, hit, kick, launch, discharge, fire or project, or cause to be thrown, hit, kicked, launched, discharged, fired or projected, any object—

- (a) with intent to strike; or
- (b) if there is significant risk that the object will strike—

any part of a relevant installation.

Penalty: 10 penalty units.

306 Aircraft, kites etc.

- (1) A person must not launch, release, operate, fly or land any aircraft, glider, hang glider, hot air balloon, parachute, mechanically propelled model aircraft, model glider or kite within 45 metres of a relevant installation that is above the ground.

Penalty: 10 penalty units.

- (2) Subregulation (1) does not apply to a person who lands an aircraft, glider, hang glider, hot air balloon or parachute if the particular circumstances reasonably necessitated the landing by the person.

307 Entangled objects

A person must not pull or interfere with any object resting on or entangled in any relevant installation unless the action is reasonably necessary to prevent or reduce injury to a person or damage to property.

Penalty: 10 penalty units.

308 Blasting and fires

A person must not—

- (a) carry out blasting or cause blasting to be done; or
- (b) light, cause to be lit or allow to remain alight any fire; or
- (c) install equipment or operate processes likely to create an explosive atmosphere—

in the vicinity of a relevant installation in such a manner that the relevant installation is likely to be destabilised or damaged or an explosion is likely to occur.

Penalty: 20 penalty units.

309 Protection of underground electrical installations from damage

A person must not place or allow to remain, or cause to be placed or allowed to remain any corrosive, abrasive, heavy or deleterious material or substance that damages or is likely to damage a relevant installation above or in the vicinity of any underground portion of a relevant installation the existence and location of which should reasonably have been known to the person.

Penalty: 20 penalty units.

310 Excavating—private land

- (1) A person must not make an excavation or penetration deeper than 300 millimetres on private land where an underground line is located unless the person has inspected any record of the route of underground lines under regulation 218 and located any underground lines in the vicinity of the proposed excavation or penetration.

Penalty: 20 penalty units.

-
- (2) A person must not penetrate, cut away, excavate or remove, or cause to be penetrated cut away, excavated or removed, any earth or material supporting or covering a relevant installation so as to—
- (a) endanger the stability of the relevant installation; or
 - (b) reduce the depth of the underground installation to less than the minimum depth required by these Regulations.

Penalty: 20 penalty units.

- (3) A person must not make an excavation or penetration deeper than 300 millimetres on private land within 10 000 millimetres of a SWER substation.

Penalty: 20 penalty units.

311 Excavating—public land and easements

- (1) A person must not make an excavation or penetration deeper than 300 millimetres on public land or in an easement or on land adjacent to public land or an easement where an underground line is located unless the person has inspected any relevant records kept in accordance with section 76 and 77 of the Act and located any underground lines in the vicinity of the proposed excavation or penetration.

Penalty: 20 penalty units.

- (2) A person must not penetrate, cut away, excavate or remove, or cause to be penetrated, cut away, excavated or removed, any earth or material supporting or covering a relevant installation so as to—

- (a) endanger the stability of the relevant installation; or
- (b) reduce the depth of the underground installation to less than the minimum depth required by these Regulations.

Penalty: 20 penalty units.

- (3) A person must not make an excavation or penetration deeper than 300 millimetres on public land or in an easement or on land adjacent to public land or an easement within 10 000 millimetres of a SWER substation.

Penalty: 20 penalty units.

312 Altering levels

- (1) A person must not place material above ground level below a low voltage aerial line on public land that forms part of a relevant installation in a manner that alters the level of the ground.

Penalty: 20 penalty units.

- (2) A person must not place material above ground level below a high voltage aerial line or aerial line of a small gauge railway that forms part of a relevant installation in a manner to alter the level of the ground so as to reduce the distance between the ground and the line to less than the minimum distance required by regulation 223.

Penalty: 20 penalty units.

- (3) A person must not place any material above ground level next to a relevant installation operating on public land so as to reduce the distance between the ground and the installation.

Penalty: 20 penalty units.

313 Minimum distances between parts of buildings, structures, scaffolding and posts and aerial lines

A person must not build, erect or maintain a building, structure, scaffolding or post or part of a building, structure, scaffolding or post in a place specified in Row B, C, D, E or F in Column 1 of Table 313 so that, at any time, the building, structure, scaffolding, post or part is closer to an aerial line of the kind specified in Row A in Column 2, 3, 4, 5, 6, 7, 8 or 9 of Table 313 that forms part of a relevant installation than the relevant minimum distance specified in Column 2, 3, 4, 5, 6, 7, 8 or 9 of that Table in relation to those places.

Penalty: 20 penalty units.

TABLE 313—Minimum distances from parts of buildings, structures, scaffolding or posts to aerial lines of relevant installations

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Minimum Distance and Nominal Voltage								
Aerial lines								
Row A								
Aerial lines	d.c. traction conductors for a small gauge tramway system U ≤ 600V	d.c. traction conductors for a small gauge railway system U ≤ 1500V	Alternating current aerial lines U ≤ 1kV	1kV a.c. or 1500V d.c. <U ≤ 33kV	33kV< U ≤ 132kV	132kV< U ≤ 275kV	275kV< U ≤ 330kV	330kV< U ≤ 500kV
Row B								
Vertically above those parts of a building, structure, scaffolding or post normally accessible to persons	3700 mm	4600 mm	3700 mm	4600 mm	5000 mm	6800 mm	8000 mm	9800 mm
Row C								
Vertically above those parts of a building, structure, scaffolding or post not normally accessible but on which a person can stand	2700 mm	3700 mm	2700 mm	3700 mm	4600 mm	6000 mm	7000 mm	8000 mm

Electricity Safety (Installations) Regulations 2009

S.R. No. 164/2009

Part 3—Electrical Safety Duties

r. 314

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Minimum Distance and Nominal Voltage								
<i>Aerial lines</i>								
<i>Row A</i>								
<i>Aerial lines</i>	<i>d.c. traction conductors for a small gauge tramway system</i> U ≤ 600V	<i>d.c. traction conductors for a small gauge railway system</i> U ≤ 1500V	<i>Alternating current aerial lines</i> U ≤ 1kV	1kV a.c. or 1500V d.c. <U ≤ 33kV	33kV< U ≤ 132kV	132kV< U ≤ 275kV	275kV< U ≤ 330kV	330kV< U ≤ 500kV
<i>Row D</i>								
In any direction from those parts of a building, structure, scaffolding or post not normally accessible to persons	600 mm	2700 mm	600 mm	2700 mm	3000 mm	3700 mm	4700 mm	6400 mm
<i>Row E</i>								
In any direction from windows, openings and balconies and those parts of a building, structure, scaffolding or post normally accessible to persons	1500 mm	2700 mm	1500 mm	2700 mm	3000 mm	4600 mm	5500 mm	6400 mm
<i>Row F</i>								
In any direction from a footbridge	4600 mm	4600 mm	4600 mm	4600 mm	4600 mm	6800 mm	8000 mm	9800 mm

314 Minimum distances between materials and certain aerial lines

A person must not—

- place or allow to remain any flammable material closer than 3000 millimetres in any direction from a wall or fence of any substation or switch yard that forms part of a relevant installation; or
- place or allow to remain any flammable material vertically below an aerial line that forms part of a relevant installation; or
- place or allow to remain any flammable material so that, at any time, the flammable material is closer than the relevant horizontal

distance specified in Row A of Table 314 from any point of the vertical projection below an aerial line that forms part of a relevant installation; or

- (d) place or allow to remain any material so that, at any time, the material is closer than the relevant horizontal distance marked "h" specified in Row B of Table 314 from any point of the vertical projection below an aerial line that forms part of a relevant installation unless the material is no closer vertically below the line than the vertical distance marked "v" specified in Row B of Table 314.

Penalty: 20 penalty units.

TABLE 314—Minimum distances from materials to aerial lines

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Type of material	U ≤ 1500V d.c. traction conductor	Aerial lines Nominal voltage ("U")				
		1kV a.c. or 1500V d.c. < U ≤ 33kV	33kV < U ≤ 132kV	132kV < U ≤ 275kV	275kV < U ≤ 330kV	330kV < U ≤ 500kV
Row A Flammable material Horizontal distance	3000 mm	3000 mm	3000 mm	4600 mm	5500 mm	6400 mm
Row B Any other material						
"h"	1500 mm	2100 mm	3000 mm	4500 mm	5500 mm	6400 mm
"v"	3700 mm	4600 mm	4600 mm	6800 mm	8000 mm	9800 mm

315 Minimum distances between parts of vehicles, vessels, plant, machinery and aerial lines

- (1) A person must not operate a vehicle, vessel or fixed or mobile plant or machinery so that any part of the vehicle, vessel, plant, machinery or any fixed or removable attachment of that vehicle, vessel, plant or machinery comes closer to an aerial line that forms part of a relevant installation set out in Row A in Column 1, 2, 3 or 4 of

Table 315 than the relevant minimum distance specified in the corresponding item in Row B in Column 1, 2, 3 or 4 of Table 315.

Penalty: 20 penalty units.

- (2) This regulation does not apply to a person transporting a load.

TABLE 315—Minimum distances from any part of a vehicle, plant or machinery to aerial lines

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
Row A	$U \leq 1500V$			
Aerial line	d.c. traction conductor	$U \leq 66kV$	$66kV < U \leq 132kV$	$132kV < U \leq 500kV$
Row B	2000 mm	2000 mm	4000 mm	6400 mm
Minimum distance from the aerial line in all directions				

316 Minimum distances between transported loads and aerial lines

A person must not drive or manoeuvre a vehicle with a load or transport a load so that the load is closer to an aerial line that forms part of a relevant installation set out in Row A in Column 1, 2, 3, 4, 5, 6 or 7 of Table 316 than the relevant minimum distance specified in the corresponding item in Row B in Column 1, 2, 3, 4, 5, 6 or 7 of Table 316.

Penalty: 20 penalty units.

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 3—Electrical Safety Duties

r. 317

TABLE 316—Minimum distances from transported loads to aerial lines

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>	<i>Column 6</i>	<i>Column 7</i>
	<i>Alternating current aerial lines Nominal voltage ("U")</i>						
Row A Aerial line	U ≤ 1kV a.c. bare conductor and U ≤ 1500V d.c. traction conductor	U ≤ 1kV a.c. insulated conductor	1kV < U ≤ 66kV a.c. and 1500V < U ≤ 66kV d.c.	66kV < U ≤ 132kV	132kV < U ≤ 275kV	275kV < U ≤ 330kV	330kV < U ≤ 500kV
Row B Minimum distance from the aerial line in all directions	600 mm	300 mm	1000 mm	1500 mm	4600 mm	5500 mm	6400 mm

317 Minimum distances between aerial lines

- (1) A person who owns or operates an aerial line must not erect, maintain or allow to remain or cause to be erected or maintained an aerial line specified in Rows A to P in Column 1 or 2 of Table 317.1 so that, at any time, the aerial line is closer to an aerial line specified in the same Row as that line than the relevant minimum distance specified in Column 3 or 4.

Penalty: 20 penalty units.

- (2) A person must not erect or maintain an aerial line so that the nominal voltage of the lower circuit of an aerial line is greater than the nominal voltage of the upper circuit of an aerial line.

Penalty: 20 penalty units.

- (3) A person must not erect or maintain a circuit or other cable system on a pole line so that, at any time, the circuit or other cable system is closer than the relevant minimum distance specified in Table 317.2 to—

- (a) a circuit or other cable system or pole line of a relevant installation specified in the Table;
or

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 3—Electrical Safety Duties

r. 317

(b) any part of a relevant installation specified in the Table not attached to the pole line.

Penalty: 20 penalty units.

(4) A person must not erect or maintain an electrolysis drainage cable so that at any time it crosses a d.c. traction conductor except where the conductor and the cable are attached to a common pole or support.

Penalty: 20 penalty units.

TABLE 317.1—Minimum distances between aerial lines

Column 1	Column 2	Column 3	Column 4
Type and nominal voltage ("U")		Minimum distance	
Upper circuit	Lower circuit	Between the points where the aerial lines are attached to a common pole or support	Between the aerial line spans. Circuits on the same pole line or circuits crossing not on same pole line
Row A			
Low voltage alternating current aerial line	d.c. traction conductor U≤ 1500V	1000 mm	1000 mm
Row B			
d.c. traction conductor U≤ 1500V	Electrolysis drainage cable	1000 mm	1000 mm
Row C			
d.c. traction conductor U≤ 1500V	Other cable system	1000 mm	1000 mm
Row D			
Low voltage alternating current aerial line	d.c. street traction conductor U ≤ 600V	600 mm	600 mm
Row E			
d.c. street traction conductor U ≤ 600V	Electrolysis drainage cable	380 mm	600 mm (circuit crossing not permitted)
Row F			
d.c. street traction conductor U ≤ 600V	Other cable system	1000 mm	1000 mm

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009
Part 3—Electrical Safety Duties

r. 317

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Type and nominal voltage ("U")</i>		<i>Minimum distance</i>	
<i>Upper circuit</i>	<i>Lower circuit</i>	<i>Between the points where the aerial lines are attached to a common pole or support</i>	<i>Between the aerial line spans. Circuits on the same pole line or circuits crossing not on same pole line</i>
Row G			
Low voltage alternating current aerial line	d.c. traction conductor $600V < U \leq 1500V$	Not permitted	Not permitted
Row H			
d.c. traction conductor $600V < U \leq 1500V$	Other cable system or electrolysis drainage cable	1000 mm	1000 mm
Row I			
Alternating current aerial line $1kV < U < 11kV$	Private electric line	1800 mm	Not permitted
Row J			
Alternating current aerial line $1kV < U < 11kV$	Other cable system or electrolysis drainage cable	1800 mm	1000 mm
Row K			
Alternating current aerial line $1kV < U < 33kV$	Alternating current aerial line $< 33kV$	1200 mm	1200 mm
Row L			
Alternating current aerial line $11kV < U < 33kV$	Private electric line	1800 mm	Not permitted
Row M			
Alternating current aerial line $11kV < U < 33kV$	Other cable system or electrolysis drainage cable	1800 mm	1200 mm
Row N			
Alternating current aerial line $33kV < U < 66kV$	Private electric line	2400 mm	Not permitted
Row O			
Alternating current aerial line $33kV < U < 66kV$	Other cable system or electrolysis drainage cable	2400 mm	1800 mm
Row P			
Alternating current aerial line $33kV < U < 66kV$	Alternating current aerial line $< 66kV$	1800 mm	1800 mm

TABLE 317.2—Minimum distances from circuits or other cable systems on pole lines to circuits or other cable systems on pole lines of relevant installations and any part of a relevant installation not attached to the pole line

<i>Alternating current aerial lines Nominal voltage ("U")</i>								
<i>U ≤ 1500V d.c. traction conductor</i>	<i>Other cable systems and insulated conductor U ≤ 1kV a.c.</i>	<i>U ≤ 1kV a.c. bare conductor</i>	<i>1kV a.c. or 1500V d.c. < U ≤ 33kV insulated conductor</i>	<i>1kV a.c. or 1500V d.c. < U ≤ 33kV bare conductor</i>	<i>33kV < U ≤ 132kV</i>	<i>132kV < U ≤ 275kV</i>	<i>U > 275kV < U ≤ 330kV</i>	<i>330kV < U ≤ 500kV</i>
1500 mm	100 mm	1500 mm	1500 mm	2100 mm	3000 mm	4500 mm	5000 mm	6000 mm

318 Minimum distances between persons and aerial lines

- (1) A person must not come closer to an aerial line that forms part of a relevant installation specified in Column 1 of Table 318 than the minimum distance specified in Column 2 of Table 318 opposite that aerial line.

Penalty: 20 penalty units.

- (2) This regulation does not apply to—
- (a) a licensed electrician engaged by the owner or operator of the aerial line to carry out electrical installation work on that line; or
 - (b) a person engaged in tree clearing work who holds a current certificate specifying satisfactory completion of a training course in tree clearing, approved by Energy Safe Victoria; or
 - (c) a telecommunications worker who holds a current certificate specifying satisfactory completion of a training course in power line awareness, approved by Energy Safe Victoria; or
 - (d) a person employed or engaged by a major electricity company who is carrying out electrical work on an aerial line owned or operated by the major electricity company; or

- (e) a person engaged by the owner or operator of the aerial line who is carrying out electrical installation work on the line, under the effective supervision of a licensed electrician, if the person—
- (i) has completed a contract of training as an electric line worker that involves electrical work on high voltage aerial lines; and
 - (ii) has the written permission of the owner or operator of the line.
- (3) A person referred to in subregulation (2) must comply with the Blue Book.

TABLE 318—Minimum distances from persons to aerial lines

<i>Column 1</i>	<i>Column 2</i>
<i>Type of aerial line</i>	
<i>Nominal voltage ("U")</i>	<i>Minimum distance</i>
Insulated low voltage conductors	100 mm
Bare or covered low voltage conductors	1500 mm
High voltage conductors $U \leq 66\text{kV}$	2000 mm
High voltage conductors $66\text{kV} < U \leq 220\text{kV}$	4000 mm
High voltage conductors $220\text{kV} < U \leq 500\text{kV}$	6000 mm

319 Tree clearing

- (1) A person, other than an authorised person, must not prune or clear the whole or any part of a tree if the tree or any part of the tree that is pruned or cleared could fall closer to a relevant installation than—
- (a) in the case of a relevant installation operating at low voltage, 2 metres in all directions; and
 - (b) in the case of a high voltage electrical installation or aerial line of a small gauge railway with a voltage set out in Row A in Column 1 or 2 of Table 319, the relevant

minimum distance specified in Row B in Column 1 or 2 of Table 319.

Penalty: 20 penalty units.

- (2) An authorised person must, before pruning or clearing the whole or any part of a tree to which subregulation (1) applies, notify the owner of the relevant installation.

Penalty: 20 penalty units.

- (3) In this regulation **authorised person** means a person who holds a current certificate specifying satisfactory completion of a training course in tree clearing, approved by Energy Safe Victoria.

TABLE 319—Minimum distances from falling trees or parts of trees to high voltage electrical installations and aerial lines of a small gauge railway or tramway system

	<i>Nominal voltage ("U")</i>	
	<i>Column 1</i>	<i>Column 2</i>
A	U ≤ 66kV alternating current or U ≤ 1500V d.c. traction conductor	U > 66kV alternating current or U > 1500V direct current
B Minimum distance in all directions	2000 mm	6000 mm

320 Damage and interference

- (1) A person must not attach aerial lines or other cable systems to a low voltage electrical installation operating on alternating current on public land.

Penalty: 20 penalty units.

- (2) A person must not in a manner that would cause or be likely to cause risk to persons or damage to property—

- (a) damage or interfere with a relevant installation; or

-
- (b) damage or interfere with a seal or lock preventing entry or access to a relevant installation; or
 - (c) deface a sign relating to electrical safety on or near a relevant installation; or
 - (d) damage or interfere with metering equipment.

Penalty: 20 penalty units.

321 Placing of materials

A person must not place any material, or allow any material to remain, in a manner that will—

- (a) prevent access to any switchboard or door, gate or entrance to a substation, switchroom or switchyard of an electrical installation; or
- (b) restrict the free flow of air through any opening or fitting used for ventilation in the walls of a substation, switchroom or switchyard of an electrical installation.

Penalty: 20 penalty units.

PART 4—EXEMPTIONS

401 Exemptions

- (1) Energy Safe Victoria may, on the application of any person, exempt any electrical work or any person from any of the requirements of these Regulations subject to any conditions specified by Energy Safe Victoria.
- (2) An application must be in writing and contain details of—
 - (a) the applicant's name, telephone number, and business and postal address; and
 - (b) the exemption requested; and
 - (c) the reasons for the exemption.
- (3) An application referred to in subregulation (2) must be accompanied by—
 - (a) any relevant technical information, including details showing that the granting of an exemption will not reduce the level of safety from physical injury, fire and electric shock from the level that would be provided under these Regulations if the Regulations are complied with; and
 - (b) a written agreement to the proposed exemption signed by the owner, occupier or controlling body of the land on which the work is to be carried out; and
 - (c) the application fee.
- (4) The application fee for an exemption under this regulation is 5·99 fee units.
- (5) Energy Safe Victoria may waive or rebate payment of all or part of the application fee payable under this regulation if—

-
- (a) an application is withdrawn and a new application is submitted; or
 - (b) in the opinion of Energy Safe Victoria, the payment of the application fee is not warranted because of the minor nature of the consideration of the application to be decided; or
 - (c) in the opinion of Energy Safe Victoria, dealing with the application imposes on Energy Safe Victoria no appreciable burden or a lesser burden than usual.
- (6) Energy Safe Victoria may revoke an exemption.
- (7) A person to whom an exemption applies must comply with any conditions of the exemption imposed by Energy Safe Victoria.

Penalty: 20 penalty units.

PART 5—INFRINGEMENT OFFENCES

501 Provisions for which infringement notices may be served

For the purposes of paragraph (b) the definition of *prescribed offence* in section 140A of the Act, regulations 243(1), 244, 248, 250(3), 253(1), 254, 256(2), 310(1) and (3), 311(1) and (3), 312(1), (2) and (3), 313, 314, 315(1), 316, 317(1), (2), (3) and (4), 318(1), 319(1), 320(1), 321 and 401(7) are prescribed provisions.

PART 6—RELATED AMENDMENTS

601 Amendments to related Regulations

The Regulations referred to in the heading to an item in Schedule 2 are amended as set out in that item.

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Sch. 1

SCHEDULES

SCHEDULE 1

Regulation 104

REVOKED REGULATIONS

<i>S.R. No.</i>	<i>Title</i>
141/1999	Electricity Safety (Network Assets) Regulations 1999 ¹
158/2005	Electricity Safety (Network Assets) (Amendment) Regulations 2005 ²

SCHEDULE 2

Regulation 601

AMENDMENTS TO RELATED REGULATIONS

1 Electricity Safety (Installations) Regulations 1999³

- 1.1 Regulations 102(c), (d), (e), (f), (h) and (i) are **revoked**.
- 1.2 In Regulation 102(g), for "1998;" **substitute** "1998."
- 1.3 Parts 4 and 4A are **revoked**.
- 1.4 For Schedule 2 **substitute**—

"SCHEDULE 2

FEEs

REGISTRATION OF ELECTRICAL CONTRACTORS

- | | |
|--|-------|
| • Registration of electrical contractor | \$240 |
| • Renewal of registration of electrical contractor | \$170 |
| • Issue of duplicate registration card | \$50 |
| • Copy of the register | \$150 |
| • Extract from the register | \$25 |
| • Application fee for examination | \$180 |

LICENSING OF ELECTRICAL WORKERS

- | | |
|--|-------|
| • Application fee for issue of licence for an electrical installation worker | \$200 |
| • Application fee for renewal of licence for an electrical installation worker | \$130 |
| • Application fee for issue of licence for an electrical inspector | \$240 |
| • Application fee for renewal of licence for an electrical inspector | \$170 |

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Sch. 2

-
- | | |
|--------------------------------------|-------|
| • Issue of duplicate written licence | \$50 |
| • Application fee for examination | \$180 |

_____".

2 Electricity Safety (Infringements) Regulations 2000⁴

2.1 Regulations 5(a) and 5(f) are **revoked**.

2.2 In regulation 5(e)—

- (a) **omit** "404(1), 409(2), 412(1), 413(1), 414(1), (2) and (3), 438(1), 439, 440(1) and (3), 441(1), 442(1), 443(1) and 444,";
 - (b) for ", 314" **substitute** "and 314";
 - (c) for "1999;" **substitute** "1999."
-
-

ENDNOTES

1. General Information

The Electricity Safety (Installations) Regulations 2009, S.R. No. 164/2009 were made on 8 December 2009 by the Governor in Council under sections 149, 151, 152 and 157 of the **Electricity Safety Act 1998**, No. 25/1998 and came into operation as follows:

Regulation 104 and Part 3 Division 2 (regulations 304–321) on 8 December 2009; regulation 103(2); regulations 1–103, 105–303, 322–601 on 1 January 2010; regulation 103(1).

The Electricity Safety (Installations) Regulations 2009 will sunset 10 years after the day of making on 8 December 2019 (see section 5 of the **Subordinate Legislation Act 1994**).

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Endnotes

2. Table of Amendments

This Version incorporates amendments made to the Electricity Safety (Installations) Regulations 2009 by statutory rules, subordinate instruments and Acts.

Electricity Safety (Registration and Licensing) Regulations 2010, S.R. No. 21/2010
Date of Making: 27.4.10
Date of Commencement: 27.4.10

3. Explanatory Detail

¹ Sch. 1: S.R. No. 141/1999 as amended by S.R. No. 158/2005.

² Sch. 1: S.R. No. 150/2005.

³ Sch. 2 item 1: S.R. No. 49/1999. Reprint No. 1 as at 26 September 2007.

⁴ Sch. 2 item 2: S.R. No. 136/2000. Reprint No. 1 as at 1 September 2009.

Fee Units

These Regulations provide for fees by reference to fee units within the meaning of the **Monetary Units Act 2004**.

The amount of the fee is to be calculated, in accordance with section 7 of that Act, by multiplying the number of fee units applicable by the value of a fee unit.

The value of a fee unit for the financial year commencing 1 July 2009 is \$11.69. The amount of the calculated fee may be rounded to the nearest 10 cents.

The value of a fee unit for future financial years is to be fixed by the Treasurer under section 5 of the **Monetary Units Act 2004**. The value of a fee unit for a financial year must be published in the Government Gazette and a Victorian newspaper before 1 June in the preceding financial year.

Penalty Units

These Regulations provide for penalties by reference to penalty units within the meaning of section 110 of the **Sentencing Act 1991**. The amount of the penalty is to be calculated, in accordance with section 7 of the **Monetary Units Act 2004**, by multiplying the number of penalty units applicable by the value of a penalty unit.

The value of a penalty unit for the financial year commencing 1 July 2009 is \$116.82.

The amount of the calculated penalty may be rounded to the nearest dollar.

The value of a penalty unit for future financial years is to be fixed by the Treasurer under section 5 of the **Monetary Units Act 2004**. The value of a penalty unit for a financial year must be published in the Government Gazette and a Victorian newspaper before 1 June in the preceding financial year.

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Table of Applied, Adopted or Incorporated Matter Required by the Subordinate Legislation Regulations 2004

Note that the following table of applied, adopted or incorporated matter is included in accordance with the requirements of regulation 5 of the Subordinate Legislation Regulations 2004.

[illegible]

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Statutory Rule Provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 103, definition of <i>AS/NZ 1074</i> Regulations 214(3)(b), 214(4)(a), 215(b), 217(2)(c), 219(2)(b)	Australian Standard, 'Steel tubes and tubulars for ordinary service', AS 1074, 4th edition, published 10 April 1989 by Standards Australia	The Whole
Regulation 103, definitions of— <i>AS/NZ 1735.1, private residence</i>	Australian/New Zealand Standard, AS/NZS 1735.1, 'Lifts, escalators and moving walks General requirements', 6th edition, published 2 September 2003 by Standards Australia	The Whole
Regulation 103, definition of <i>AS/NZ 1735.18</i>	Australian/New Zealand Standard, AS/NZS 1735.18, 'Lifts, escalators and moving walks Part 18: Passenger lifts for private residence—Automatically controlled', published 21 June 2002 by Standards Australia	The Whole
Regulation 103, definition of <i>AS/NZ 2053</i> Regulations 214(3)(b), 214(4)(a), 215(a), 217(2)(b), 219(3)	Australian/New Zealand Standard, 'Conduits and fittings for electrical installations', AS/NZS 2053, 2nd edition, published 12 July 2001 by Standards Australia	The Whole

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Statutory Rule Provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 103, definition of AS 2067 Regulations 219(3)(a), 231	Australian Standard, 'Substations and high voltage installations exceeding 1 kV a.c.', AS 2067, 4th edition, published 12 December 2008 by Standards Australia	
Regulation 103, definition of AS/NZS 3003	Australian/New Zealand Standard, AS/NZS 3003, 'Electrical installations – Patient areas of hospitals and medical, dental practices and dialyzing locations', published 30 June 2003 by Standards Australia	The Whole
Regulation 103, definition of AS/NZS 3016 Regulation 211	Australian/New Zealand Standard, 'Electrical installations – electric security fences', AS/NZS 3016, 2nd edition published 10 January 2003 by Standards Australia	The Whole
Regulation 103, definition of AS 3600 Regulation 216(1)(f)(i)	Australian Standard, 'Concrete structures', AS 3600, 3rd edition reissued incorporating Amendment No. 2, published October 2004 by Standards Australia	The Whole

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Statutory Rule Provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 103, definition of AS 3891.1 Regulation 230	Australian Standard, 'Air navigation – cables and their supporting structures – marking and safety requirements – Part 1: Permanent marking of overhead cables and their supporting structures for other than planned low-level flying', AS 3891.1, 2nd edition, published 19 March 2008 by Standards Australia	The Whole
Regulation 103, definition of AS 3891.2 Regulation 230	Australian Standard, 'Air navigation – cables and their supporting structures – marking and safety requirements – Part 2: Marking of overhead cables for low-level flying operations', AS 3891.2, 2nd edition, published 19 March 2008 by Standards Australia	The Whole
Regulation 103, definition of AS/NZS 4680 Regulation 219(2)(a)	Australian/New Zealand Standard, 'Hot-dip galvanized (zinc) coatings on fabricated ferrous articles', AS/NZS 4680, 2nd edition, published 30 August 2006 by Standards Australia	
Regulation 103, definition of AS 4702 Regulation 216(1)(f)(ii)	Australian Standard, 'Polymeric cable protection covers', AS 4702, published 1 December 2000 by Standards Australia	The Whole

Electricity Safety (Installations) Regulations 2009
S.R. No. 164/2009

Statutory Rule Provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 103, definition of <i>AS/NZS 4792</i> Regulation 219(2)(a)	Australian/New Zealand Standard, 'Hot-dip galvanized (zinc) coatings on ferrous hollow sections, applied by a continuous or a specialized process', AS/NZS 4792, 2nd edition published 17 July 2006 by Standards Australia	The Whole
Regulation 103, definitions of— <i>Access Authority, the Blue Book</i> Regulations 301(2)(d)(i), 301(2)(d)(ii), 301(2)(e), 302(2)(d)(i), 302(2)(d)(ii), 302(2)(e), 303(2)(d)(i), 303(2)(d)(ii), 303(2)(e)	Code of Practice of Electrical Safety for Work On or Near High Voltage Apparatus, published 31 December 2005 by Energy Safe Victoria	The Whole
Regulation 103, definition of <i>Melways Street Directory</i> Regulation 223	"Greater Melbourne Street Directory", 37th edition published July 2009 by Melway Publishing Pty Ltd	The Whole
Regulation 103, definition of <i>VicRoads Country Street Directory</i> Regulation 223	"VicRoads Country Street Directory of Victoria", 7th edition published September 2007 by the Royal Automobile Club of Victoria	The Whole