

# NORTHERN TERRITORY OF AUSTRALIA

## ELECTRICITY REFORM (SAFETY AND TECHNICAL) REGULATIONS

As in force at 1 February 2011

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# NORTHERN TERRITORY OF AUSTRALIA

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This reprint shows the Regulations as in force at 1 February 2011. Any amendments that commence after that date are not included.

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## ELECTRICITY REFORM (SAFETY AND TECHNICAL) REGULATIONS

### Regulations under the *Electricity Reform Act*

#### Part 1 Preliminary

##### 1 Citation

These Regulations may be cited as the *Electricity Reform (Safety and Technical) Regulations*.

##### 2 Definitions

In these Regulations, unless the contrary intention appears:

***active***, in relation to a conductor, means:

- (a) any one of the conductors of a power system that is maintained at a difference of potential from:
  - (i) the neutral conductor; or
  - (ii) an earthed conductor; or
- (b) if a power system does not include a neutral or earthed conductor – all conductors.

***aerial line*** means a powerline placed above the ground and in the open air, but does not include bus bars or any direct current conductors used as traction trolley wires.

***AS*** or ***Australian Standard*** means an Australian Standard, as from time to time, approved for publication on behalf of Standards Australia International Limited (A.C.N. 087 326 690) or the Standards Association of Australia as constituted before 1 July 1999.

***circuit*** means any number of conductors connected together for the purpose of carrying current.

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**conductor** means a wire, or other form of conducting material suitable for carrying current, other than wires, cables or other metallic parts directly used in converting electrical energy into another form of energy.

**high voltage** or **HV**, in relation to electricity, means electricity at a voltage exceeding 1 000 volts alternating current (**ac**) or 1 500 volts direct current (**dc**).

**insulated** means contained within a material or medium (including air) in order to limit the flow of current between conductors at different potentials.

**insulated conductor** means a conductor that:

- (a) is wholly covered with insulating material in accordance with the appropriate requirements of the relevant Approval and Test specification of an Australian Standard; or
- (b) is of a type approved by the electricity safety regulator.

**live**, in relation to an object, means that a difference of potential exists or would exist between it and earth under normal conditions of operation, including all metal connected to the neutral conductor of the supply system, (even if such neutral is earthed at the source of supply), but the following are not to be taken to be live:

- (a) earthing conductors;
- (b) copper sheaths of Mineral Insulated Metal Sheathed (**MIMS**) cables used in Earthed Sheathed Return (**ESR**) systems;
- (c) neutral busbars or links in installations if the multiple earthed neutral system is employed.

**low voltage** or **LV** has the same meaning as in AS 3000.

**multiple earthed neutral system** or **MEN system** means a system of earthing in which the parts of an electrical installation required by AS 3000 to be earthed:

- (a) are connected to the general mass of earth; and
- (b) are connected within the installation to the neutral conductor of the supply system.

**nominal system voltage** means the voltage by which a system of supply is designated and to which certain operating characteristics of that system of supply are referred in accordance with AS 60038.

**operator**, in relation to a transmission or distribution network, electricity infrastructure or electrical installation, means the person who operates, owns or controls the network, infrastructure or installation.

**other cable system** means:

- (a) telecommunication and control cables;
- (b) aerial earthed cables; or
- (c) electrolysis drainage cables,

attached to, or in the vicinity of, structures supporting cables under the control of an electricity entity.

**service line** means the terminating span of a powerline:

- (a) constructed or designed or ordinarily used to supply electricity at low voltage; and
- (b) through which electricity is or is intended to be supplied by an electricity entity to a customer from the transmission or distribution network of the entity.

**substation** means any premises or place (including a switchyard) in which high voltage supply is converted, controlled or transformed.

**U**, in relation to voltage of electricity, means Nominal System Voltage.

**underground line** means a powerline that is placed under the ground, including those portions which are erected above the ground.

## Part 2                      Safety and technical requirements

### 3                      Installations to comply with Australian Standard

For the purposes of sections 67(1) and 68(1) of the Act, it is a safety and technical requirement of these Regulations that an electrical installation must comply with AS 3000 and any other Australian Standard called up by AS 3000.

## **Part 3                      Electrical installation work and certification**

### **4                      Certain electrical installation work**

For the purposes of section 69 of the Act, work on an electrical installation or proposed electrical installation that is work of a kind referred to in AS 3000 or another Australian Standard called up by AS 3000 must be carried out, and the installation must be examined and tested:

- (a) in accordance with AS 3000 and an Australian Standard called up by or under AS 3000, if any, and so that the installation complies with all other technical and safety requirements under these Regulations; and
- (b) in accordance with the requirements, if any, specified by the operator of the transmission or distribution network to which the installation is or is to be connected.

### **5                      Certificates of compliance**

- (1) The licensed electrical worker personally carrying out the examinations and tests under regulation 4 must, when satisfied that the work has been carried out in accordance with the standards and requirements referred to in that regulation and before the installation is made available for energisation, complete and sign a certificate of compliance for the purposes of Part 5 of the Act, in a form approved by the electricity safety regulator to that effect.
- (2) If the licensed electrical worker who signs the certificate of compliance under subregulation (1) was employed or engaged to carry out the examinations and tests (whether or not together with other work on the installation) by a licensed electrical contractor, then:
  - (a) the contractor; or
  - (b) a person who has or had a supervisory role in relation to the worker and who is acting as a duly authorised agent of the contractor,

must, if satisfied that the standards and requirements referred to in regulation 4 have been complied with in relation to the work, also complete and sign the certificate in accordance with the directions contained in it.

- (3) If the work is associated with the making of a connection to a transmission or distribution network, a copy of the certificate (completed and signed in accordance with subregulations (1) and (2)) must be given to the operator of the network before the energisation of the work or a part of the work.
- (4) If the work was carried out on behalf of the owner or occupier of the premises concerned, a copy of the certificate (completed and signed in accordance with subregulations (1) and (2)) must be given to the owner or occupier within 30 days after the installation was made available for energisation.
- (5) A copy of the certificate (completed and signed in accordance with subregulations (1) and (2)) must be kept at the business premises of the person to whom section 69 of the Act applies or, if that person does not have business premises, at that person's residence for at least 5 years after the installation was made available for energisation.
- (6) A certificate of compliance may not be relied on by an owner or operator of an electrical installation under section 68(2) of the Act if the certificate has been issued in relation to the installation by a licensed electrical worker who is an employee of the owner or occupier.

## **6 Exemption from certificate of compliance requirements**

- (1) Regulation 5 does not apply in relation to work on an electrical installation or proposed electrical installation in specified premises if the electricity safety regulator has given an exemption under this regulation in respect of the premises and the conditions of the exemption are complied with.
- (2) The electricity safety regulator may, on application or on the electricity safety regulator's own initiative, give an exemption referred to in subregulation (1) subject to the conditions that the electricity safety regulator thinks fit, including conditions as to the keeping of records relating to electrical work in the premises.



## **Part 4                      Safeguarding persons working with conductors and electrical equipment**

### **Division 1              General**

#### **7                      Compliance with provisions of this Part and Parts 5 and 6**

- (1) A person carrying out work on or near electricity infrastructure or an electrical installation must comply with the provisions of this Part and Parts 5 and 6.
- (2) An electricity infrastructure operator, electrical installation operator and an employer must ensure compliance with the provisions of this Part and Parts 5 and 6 by his, her or its employees and contractors.

#### **8                      Basic safety principle**

A person engaging or preparing to engage in work on or near electricity infrastructure or an electrical installation must treat exposed conductors as live until they are:

- (a) isolated from all sources of electricity supply and proved to be de-energised; and
- (b) if they are high voltage conductors – earthed.

### **Division 2              Work on or near installations**

#### **9                      Application of Division**

This Division applies to work carried out:

- (a) in proximity to exposed live high or low voltage conductors or exposed live parts of high or low voltage electrical equipment;
- (b) by direct contact with exposed live high or low voltage conductors or exposed live parts of high or low voltage electrical equipment; or
- (c) on de-energised exposed conductors or exposed parts of electrical equipment if there is a possibility of the conductors or parts becoming live,

unless the work is necessary to avoid a possible danger to life or serious personal injury.

## **10 Safe work practices**

All reasonable steps must be taken to ensure safety in work to which this Division applies through:

- (a) the provision of suitable protection from adjacent live electrical conductors or adjacent live parts of electrical equipment;
- (b) the use of insulated tools and equipment;
- (c) the use of equipment and plant designed and made in accordance with recognised electricity industry practice; and
- (d) the use of safe work practices.

## **11 Work involving danger of direct contact with live conductors, etc.**

In the case of work involving a danger of accidental direct contact with exposed live conductors or exposed live parts of electrical equipment:

- (a) the work must only be carried out by a person who is competent and qualified to carry out the work; and
- (b) except where the contrary is shown by reference to generally accepted industry practices or the particular circumstances of the case, it will be presumed that safe work practices require the person to carry out the work with a competent assistant suitably trained:
  - (i) in the work;
  - (ii) in resuscitation;
  - (iii) in releasing persons from live electrical apparatus; and
  - (iv) if appropriate – in rescuing persons from poles, structures, elevated work platforms or confined spaces.

## **12 Work in proximity to exposed conductors, etc.**

- (1) Work must not be carried out in proximity to exposed conductors or exposed parts of electrical equipment unless:
  - (a) it is carried out:
    - (i) by a person who is suitably trained and qualified for such work beyond the approach limits set out in this regulation for such persons; or

- (ii) by a person who has been instructed in the identification of high and low voltage overhead conductors and the safety aspects of work near live powerlines beyond the approach limits set out in this regulation for such persons; and
  - (b) it is carried out beyond the approach limits set out in this regulation that are applicable in the circumstances.
- (2) However, a person may work within the approach limits if:
- (a) the work can be carried out safely in any of the following circumstances:
    - (i) there are installed suitable barriers or earthed metal shields between the person carrying out the work and the conductors or electrical equipment;
    - (ii) the work to be carried out is testing of equipment and the equipment is designed such that the approach limits cannot be complied with;
    - (iii) the work to be carried out is earthing of the conductors or equipment and is carried out after the exposed conductors have been isolated and proved to be de-energised; and
  - (b) written instructions have been given, either generally or in a particular case, about the work and the precautions to be taken.
- (3) For the purposes of this regulation, the approach limits for a person, including an article of clothing worn by a person, or a conductive object held or carried by the person, are as specified in Schedule 1.
- (4) In Schedule 1:
- (a) approach limit A applies to a person suitably qualified and trained to work in proximity to exposed high and low voltage conductors or exposed parts of high and low voltage electrical equipment;
  - (b) approach limit B applies to a person who has been instructed in the identification of high and low voltage overhead conductors and the safety aspects of work near live powerlines;
  - (c) approach limit C(i) applies to a person using power operated tools; and

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- (d) approach limit C(ii) applies to a person using manually operated tools.

## **Part 5                      High voltage conductors**

### **13                      Work above exposed high voltage conductors, etc.**

Work must not be carried out and equipment must not be positioned above exposed high voltage conductors or exposed parts of high voltage electrical equipment unless the work or positioning of the equipment is authorised in writing by the operator of the electricity infrastructure or electrical installation concerned.

### **14                      Work by direct contact with exposed high voltage conductors, etc.**

- (1) Work must not be carried out by direct contact with exposed high voltage conductors or exposed parts of high voltage electrical equipment unless the exposed high voltage conductors or exposed parts of high voltage electrical equipment are:
  - (a) isolated, and shown by testing to be isolated, from all sources of electricity supply; and
  - (b) earthed.
- (2) If any such conductor or equipment cannot be directly contacted to prove isolation from all sources of electricity supply, it is sufficient if:
  - (a) written instructions have been given for the isolation of the conductor or equipment from all sources of electricity supply; and
  - (b) the conductor or equipment is earthed by a lockable earthing switch designed to be safely operated if the high voltage conductor or equipment has not been isolated from all sources of supply.

### **15                      Live high voltage line work**

- (1) Electrical work on exposed live high voltage conductors or exposed live parts of high voltage electrical equipment (in this regulation referred to as *live line work*) must not be carried out unless authorised in writing by the operator of the electricity infrastructure or electrical installation on which the work will be carried out.

- (2) An electricity infrastructure operator or electrical installation operator may authorise a person to carry out live line work if satisfied the person:
  - (a) has successfully finished a course of training approved by the electricity safety regulator and provided by a training provider approved by the electricity safety regulator; and
  - (b) has been assessed by the training provider as competent to carry out the work.
- (3) The voltage of the powerlines on which live line work is carried out must be as stated by the relevant operator in the authorisation.
- (4) The relevant operator must take reasonable steps to satisfy itself as to the continuing competency of a person authorised by the operator to carry out live line work.

## **Part 6                      Testing and rescue and resuscitation**

### **16                      Suitability of testing instruments**

If tests are required to be performed on electricity infrastructure or an electrical installation or safety equipment under the Act:

- (a) the testing instruments used must be designed for and capable of correctly performing the required tests;
- (b) each testing instrument must be tested and calibrated to ensure it is in proper working order; and
- (c) the records of tests performed on testing instruments must be kept for at least 2 years.

### **17                      Rescue and resuscitation training**

Persons required to carry out, or help in carrying out, electrical work must be suitably trained in rescue and resuscitation in accordance with recognised practices in the electricity industry.

## **Part 7                      Activities in vicinity of infrastructure and installations**

### **18                      Erection of buildings in proximity to aerial lines**

- (1) For the purposes of section 98 of the Act, a person must not, except as approved by the electricity safety regulator, erect a building or structure:
  - (a) under an aerial line constructed to operate at a voltage of more than 22kV; or
  - (b) so that the distance from a part of the building or structure to a position to which a conductor in an aerial line or other cable system may sag at maximum design temperature or move as a result of normal prevailing wind pressures is less than the relevant distance set out in Table 1 in Schedule 2.
- (2) The electricity safety regulator may not approve the erection of a building or structure in proximity to an aerial line that is not situated on a public road and is constructed to operate at a voltage of more than 66kV.
- (3) The requirements of this regulation do not apply in relation to:
  - (a) a fence that is less than 2.0 m in height; or
  - (b) a service line installed specifically to supply electricity to the building or structure by the operator of the transmission or distribution network from which the electricity is being supplied.

### **19                      Erection of buildings in proximity to underground lines**

- (1) For the purposes of section 98 of the Act, a person must not, except as approved by the electricity safety regulator, erect a building or structure:
  - (a) above or below an underground powerline; or
  - (b) within:
    - (i) in relation to an underground powerline designed to operate at a voltage of 22kV or less – 2 metres; or
    - (ii) in any other case – 3 metres,

of an underground powerline measured from vertical planes extending above and below each outer edge of the conductor comprising the powerline or, in the case of a powerline that consists of more than one conductor, each outer edge of each outer conductor.

- (2) Before giving approval under subregulation (1), the electricity safety regulator must consult with the electricity entity operating the underground powerline.

## **20 Register of underground lines**

- (1) An electricity entity authorised to operate a transmission or distribution network must keep and maintain a register describing the nature and location of each line installed underground that is under the control of the entity.
- (2) The transmission or distribution network operator in an area must be notified by any other electricity entity of the nature and location of any line installed underground in the area by that other entity and that information must be recorded in the register kept by the network operator under subregulation (1).
- (3) Information contained in the register must be made available on request by a member of the public during normal business hours.

## **21 Protection of underground lines**

A person must not:

- (a) place or maintain, or cause to be placed or maintained, a corrosive, abrasive, heavy or deleterious material or substance above an underground line;
- (b) make an opening in the ground surface that may endanger an underground line; or
- (c) remove, tamper with or cover any underground line marker,

without the written authority of the operator of the electricity infrastructure of which the line forms part.

Maximum penalty: 25 penalty units.

## **22 Entangled objects**

A person must not, without the authority of the operator of the electricity infrastructure or electrical installation, pull or interfere with an object resting on or entangled in electricity infrastructure or the electrical installation unless the action is reasonably necessary to

prevent or reduce injury to a person or property.

Maximum penalty: 25 penalty units.

## **23 Altering ground levels near infrastructure**

(1) A person must not, without the written authority of the electricity infrastructure operator:

(a) cut away, excavate or remove, or cause to be cut away, excavated or removed, earth or material supporting electricity infrastructure so as to endanger the stability of the infrastructure;

(b) make an excavation deeper than 0.3 m within 3 m of:

(i) a pole structure or stand, not being a tower or tower structure supporting electricity infrastructure; or

(ii) a pole or bed log to which is affixed a staywire used to support electricity infrastructure;

(c) make an excavation deeper than 0.5 m within 10 m of a tower or tower structure supporting electricity infrastructure;

(d) make an excavation deeper than 0.3 m within 0.6 m of a wall, fence or foundation of a substation; or

(e) place material or construct an artificial surface above ground level:

(i) below an electric line or within the vertical projection of points to which a conductor of the electric line may sway; or

(ii) adjacent to electricity infrastructure,

in a manner that may alter the level of the ground at a place so as to infringe a permissible clearance distance under these Regulations.

Maximum penalty: 25 penalty units.

(2) The allowable depth of an excavation under subregulation (1) is, if the ground level unaffected by previous works is known, to be determined by reference to that level, but is otherwise to be determined by reference to the current ground level.



**24 Prohibition of certain activities in proximity to aerial lines and other cable systems**

A person must not, without the written authority of the electricity infrastructure operator:

- (a) place or maintain material closer than the relevant distance set out in Table 1 in Schedule 3 to a point to which an aerial line (including a service line) or other cable system may swing or sag;
- (b) operate a machine, vehicle or vessel equipped with an elevating component or shear legs so that a part of the machine, vehicle, vessel or its load comes within the relevant distance set out in Table 2 in Schedule 3 to a point to which an aerial line (including a service line) or other cable system may swing or sag;
- (c) attach or keep attached to electricity infrastructure conductors of circuits or other cable system;
- (d) erect or maintain conductors of circuits, or other cable system, so as to cross the circuit of an aerial line, or other cable system, unless clearances in excess of the relevant distance set out in Table 3 in Schedule 3 can be maintained; or
- (e) erect a circuit or other cable system unless the clearance in any direction from the circuit or system to a structure forming part of electricity infrastructure (other than a structure supporting the circuit or system) is greater than the relevant distance set out in Table 4 in Schedule 3.

**25 Placement of materials near supporting structures, etc.**

A person must not, without the written authority of the electricity infrastructure operator, place or maintain any material closer than the relevant distance set out in Table 1 in Schedule 3 to electricity infrastructure consisting of supporting or protective structure or equipment for aerial lines.

**26 Placement of materials in proximity to substations**

A person must not, without the written authority of the electricity infrastructure operator:

- (a) place or maintain any timber or inflammable material within 3 metres in any direction of a wall or fence surrounding a substation;

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- (b) impede access to any door, gate or entrance of a substation or interfere in any way with the free flow of air through an opening or fitting used for ventilation in the walls of a substation;
  - (c) place or maintain any material adjacent to a wall or fence of a substation; or
  - (d) plant or nurture vegetation near or adjacent to a wall or fence of a substation, so as to enable unauthorised access to the substation.

Maximum penalty: 25 penalty units.

## **27 Prohibition of burning in proximity to infrastructure**

A person must not, without the written authority of the electricity infrastructure operator, burn any material in proximity to electricity infrastructure so that there is a risk of damage to the infrastructure or outages or flashovers.

## **Part 8 Transport**

### **28 Transportation**

- (1) A person who drives a vehicle carrying a load or equipment on the vehicle or on a trailer attached to the vehicle that exceeds the height limit established under the *Motor Vehicles Act* must ensure that:
  - (a) the distance between the load being transported and an aerial line along the route taken is greater than the relevant distance set out in Table 5 in Schedule 3; and
  - (b) arrangements approved by the operator of the electricity infrastructure of which the aerial line is part have been made before, and are observed during, transportation.

Maximum penalty: 25 penalty units.

- (2) The person must give written notice of the proposal to transport the load to the electricity infrastructure operator at least 3 clear business days before the commencement of the transportation with the notice clearly stating:
  - (a) the nature of the vehicle and the load;
  - (b) the height and width of the load;

- (c) the date and the time of the proposed transportation;
- (d) the starting point and finishing point of the transportation;
- (e) the proposed route;
- (f) the name and contact address of the person;
- (g) that the person agrees to pay the reasonable costs that are incurred by the operator in considering the proposal, approving the transportation arrangements or facilitating the transportation; and
- (h) any other particulars that the operator may in the circumstances require.

Maximum penalty: 25 penalty units.

- (3) The electricity infrastructure operator may charge in advance the reasonable costs referred to in subregulation (2)(g).
- (4) An amount equivalent to the reasonable cost charged under subregulation (2)(g) is a debt due and payable to the electricity infrastructure operator charging it.

## **29 Interference and obstruction**

- (1) A person must not obstruct a road under the control of an electricity infrastructure operator or otherwise do anything to prevent or impede access to the electricity infrastructure.

Maximum penalty: 25 penalty units.

- (2) A person must not interfere with or damage the surface of a road made by an electricity infrastructure operator that is used for the purposes of works.

Maximum penalty: 25 penalty units.

- (3) An electricity infrastructure operator may, without notice to the owner, remove anything that causes or may cause a danger to people or property using or on the road.

## **Part 9                      Infringement notice scheme**

### **30                      Definitions**

In this Part, unless the contrary intention appears:

***infringement notice*** means an infringement notice issued in pursuance of these Regulations.

***offence*** means an offence against a provision of the Act or the Regulations that is specified in column 1 of Schedule 4.

***offender*** means a person who an authorised officer reasonably believes has committed an offence.

### **31                      Issuing of infringement notices**

If an authorised officer has reason to believe that an offence has been committed, he or she may serve an infringement notice on the offender.

### **32                      Particulars to be shown on infringement notice**

An infringement notice is to have clearly shown on it:

- (a) the name of the offender, if known;
- (b) the date, time and place of the offence;
- (c) the nature of the offence and the penalty payable in accordance with regulation 33;
- (d) the place or places at which the penalty may be paid;
- (e) the date of the infringement notice and a statement that the penalty may be paid within 28 days after that date; and
- (f) a statement to the effect that, if the appropriate amount specified in the infringement notice as the penalty for the offence is tendered at a place referred to in the notice within the time specified in the notice, no further action will be taken.

### **33                      Penalty payable**

The penalty payable for the purposes of this Part for an offence against a provision of the Act or these Regulations specified in column 1 of Schedule 4 is the number of penalty units specified opposite the provision in column 2.

**34 Payment before expiry date of infringement notice**

- (1) If the total amount of the penalty specified in an infringement notice is paid in accordance with the notice, the offender is to be taken to have expiated the offence by paying the penalty and no further proceedings are to be taken in respect of the offence.
- (2) If the amount of a penalty specified in an infringement notice is paid by cheque, the amount is not to be taken to have been paid unless the cheque is cleared on presentation.

**35 General**

Nothing in these Regulations:

- (a) prevents more than one infringement notice being served in relation to the same offence but it is sufficient for the application of regulation 34 to a person on whom more than one notice has been served for the person to pay the amount of the penalty in accordance with any one of the notices;
- (b) prejudices or affects (except as provided by regulation 34) proceedings being instituted or prosecuted, or limits the penalty that may be imposed by a court, in relation to an offence; or
- (c) is to be construed as requiring an infringement notice to be served or as affecting the liability of a person to be prosecuted in a court in relation to an offence in respect of which an infringement notice has not been served.

**Part 10 Miscellaneous****36 Cathodic protection systems**

- (1) The owner or operator of a cathodic protection system must ensure that it does not adversely affect the integrity or safety of any electrical installation or supply system through corrosion.
- (2) The person who owns or operates a cathodic protection system that has an anode immersed in water or a marine environment must, within 90 days before starting to operate the system, perform tests to ensure that the potential difference between any 2 accessible points spaced one metre apart in the water or marine environment is not more than 3V when the system is energised.

- (3) This regulation does not apply to a cathodic protection system:
- (a) installed on any floating mobile structure, fishing equipment, fixed off shore structure (not connected with land above sea level) or internal surface of any apparatus, equipment or structure; or
  - (b) using only galvanic anodes.

### **37 Reporting of accidents**

- (1) For the purposes of section 71 of the Act, if an accident happens that involves electric shock caused by the operation or condition of an electrical installation, a report must be made to the electricity safety regulator of the details of the accident:
- (a) in the case of a death resulting from the accident – immediately by telephone;
  - (b) in the case of a person requiring medical assistance resulting from the accident – within one day of the accident; or
  - (c) in any other case – within 10 days of the accident.
- (2) A person who is required to report an accident in accordance with section 71 of the Act must provide the electricity safety regulator with the further details of the accident that the electricity safety regulator reasonably requires.

### **38 Fees for re-inspection, etc.**

- (1) A person to whom a direction has been given under section 70, 78 or 80 of the Act is liable to pay a fee of an amount equal to the reasonable costs of any re-inspection or re-attendance by an authorised officer for the purpose of ensuring compliance with the direction or approving reconnection of the electricity supply.
- (2) A fee payable under subregulation (1) is a debt due and payable to the electricity safety regulator by the person to whom the direction to which the fee relates is made.

### **39 Form for warrants**

A warrant under section 94 or 95 of the Act is to be in the appropriate form set out in Schedule 5.

**40       Offences**

A person must not contravene or fail to comply with a provision of these Regulations for which a specific penalty is not provided.

Maximum penalty:       50 penalty units.

## Schedule 1      Approach limits

regulation 12

Voltage of conductor or equipment	Approach limit a	APPROACH LIMIT B	APPROACH LIMIT C	
			(i)	(ii)
	(DISTANCE IN METRES)			
Not more than 1000V	0	0.3	3.0	1.0
More than 1000V but less than 6.6kV	0.3	0.6	3.0	2.0
6.6kV but not more than 33kV	0.6	1.2	3.0	3.0
66kV	1.0	2.0	4.0	4.0
132kV	1.8	3.6	5.0	5.0
275kV	2.5	5.0	6.0	6.0



## Schedule 2 Erection of buildings in proximity to aerial lines

regulation 18

TABLE 1: Clearances between aerial lines and buildings or structures

Direction	Distance measured from nearest conductor (in metres)						Distance measured from centre of pole (in metres)					
	U <sub>≤</sub> 1000V			U>1000V		U>1000V U <sub>≤</sub> 33kV	U>33kV U <sub>≤</sub> 66kV	U>66kV U <sub>≤</sub> 132kV		U>132kV U <sub>≤</sub> 275kV	U>275kV U <sub>≤</sub> 330kV	U>330kV U <sub>≤</sub> 500kV
	Insulated	Bare		Insulated		Bare or covered	Bare	Bare		Bare	Bare	Bare
		Neutral	Active	With earthed screen	Without earthed screen			Single pole	other			
Vertically above those parts of a building or structure normally accessible to persons (A)	2.7	2.7	3.7	2.7	3.7	4.5	N/A	N/A	N/A	N/A	N/A	N/A
Vertically above those parts of a building or structure not normally accessible to persons but on which a person can stand (B)	0.1	2.7	2.7	0.1	2.7	4.7	N/A	N/A	N/A	N/A	N/A	N/A
In any other direction from those parts of a building or structure normally accessible to persons or that is not normally accessible to persons but on which a person can stand (C)	0.1	0.9	1.5	0.1	1.5	3.1	13.0	15.0	20.0	25.0	30.0	38.0

Schedule 2      Erection of buildings in proximity to aerial lines

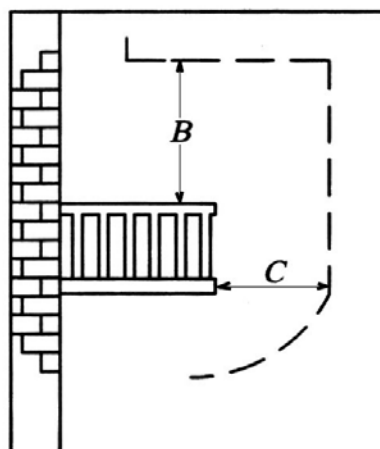
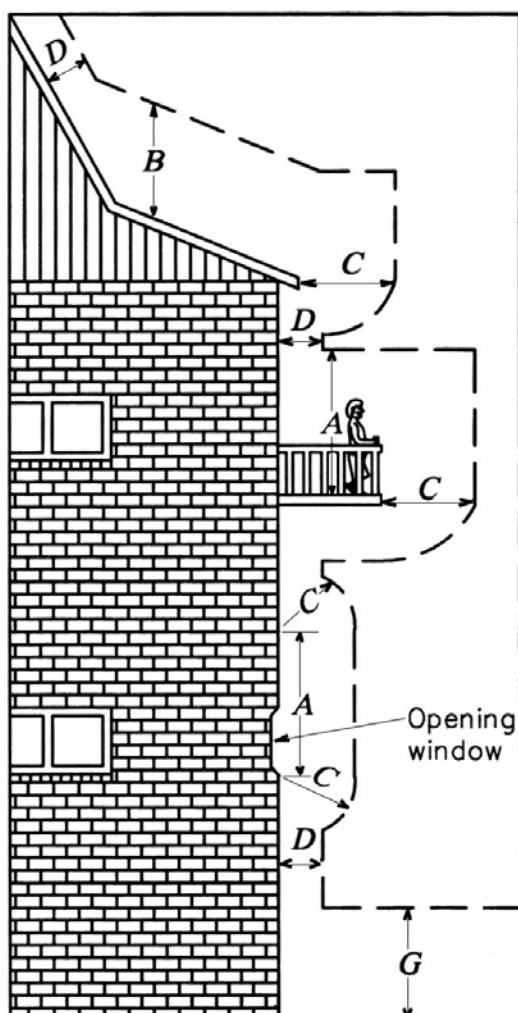
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In any direction from those parts of a building or structure not normally accessible to persons (D)	0.1*	0.3*	0.6*	0.1	0.6	2.5	13.0	15.0	20.0	25.0	30.0	38.0
In any direction from ground (G)	Refer to Table 2 or 3			Refer to Table 2		Refer to Table 2						

\*This clearance can be further reduced to allow for termination at the point of attachment.

FIGURE 1

1. Figure 1 illustrates the application of Table 1 to a particular structure. The letters A to D refer to distances A to D as set out in Table 1. The letter G refers to distance to ground of insulated cables.
2. The clearances specified in A and B of Table 1 must be maintained above a horizontal line extending outward for the distance specified in C from the outer extremities of those parts of any building or structure on which a person can stand.



The above illustration applies if the height of the railing (or similar) PLUS distance B is greater than distance A

**TABLE 2: Clearance from ground, lines other than insulated service lines**

Nominal System Voltage (U)	Distance to ground in any other direction (in metres)		
	Over the carriageway of roads	Over land other than carriageway of roads	Over land not transversable by vehicles
Bare or insulated conductor or any other cable $U \leq 1\text{kV}$ <b>OR</b> Insulated conductor with earthed screen $U > 1\text{kV}$	5.5	5.5	4.5
Insulated conductor without earthed screen $U > 1\text{kV}$	6.0	5.5	4.5
Bare or covered conductor $1\text{kV} < U \leq 33\text{kV}$ $33\text{kV} < U \leq 132\text{kV}$ $132\text{kV} < U \leq 275\text{kV}$ $275\text{kV} < U \leq 330\text{kV}$ $330\text{kV} > U \leq 500\text{kV}$	6.7 6.7 7.5 8.0 9.0	5.5 6.7 7.5 8.0 9.0	4.5 5.5 6.0 6.7 7.5

**TABLE 3: Clearance distances for aerial service lines and other cable systems**

Location of Line	Clearance Distance (in metres)
Over the centre of a road	5.5
Over any other part of a road	4.6
Over a footway or land which is likely to be used by vehicles	3.0
Elsewhere	2.7

## Schedule 3 Clearance from aerial lines

regulations 24, 25 and 28

**TABLE 1: Clearance distance between materials and aerial lines or supporting structures**

Direction of Distance	Type and Voltage of Aerial Line (clearance distance in metres)					
	Other cable systems & service lines $U \leq 1\text{kV}$	$U > 1\text{kV}$ $U \leq 33\text{kV}$	$U > 33\text{kV}$ $U \leq 132\text{kV}$	$U > 132\text{kV}$ $U \leq 275\text{kV}$	$U > 275\text{kV}$ $U \leq 330\text{kV}$	$U > 330\text{kV}$ $U \leq 500\text{kV}$
Distance between any material (other than inflammable materials) and aerial lines –						
(a) horizontal distance	1.5	2.1	3.0	4.6	5.5	6.4
(b) vertical distance	3.7	4.6	4.6	6.8	8.0	9.8
Distance between inflammable materials and aerial lines –						
(a) horizontal distances	3.0	3.0	3.0	4.6	5.5	6.4
(b) vertical distances	3.7	4.6	6.8	6.8	8.0	9.8
Distance between any material and supporting structure –						
(a) horizontal distances	5.0	10.0	15.0	15.0	15.0	15.0
(b) vertical distances	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 2: Clearance distance between operation of machine, vehicle or vessel with elevating component or shear legs and aerial lines**

Type and voltage of aerial line	$U \leq 1\text{kV}$ ABC	$U \leq 1\text{kV}$ Bare and covered conductor	$U > 1\text{kV}$ $U \leq 33\text{kV}$	$U > 33\text{kV}$ $U \leq 132\text{kV}$	$U > 132\text{kV}$ $U \leq 275\text{kV}$	$U > 275\text{kV}$ $U \leq 330\text{kV}$	$U > 275\text{kV}$ $U \leq 500\text{kV}$
Clearance distance in all directions in metres	0.5	1.0	1.5	3.0	4.0	6.0	8.0

**TABLE 3: Clearance distance between erection of circuits or other cable systems and aerial lines**

Type or Circuit and Voltage		Clearance distance (in metres)		
Upper Circuit	Lower Circuit	Attached to a common structure	Between Structures	
			No wind condition	Wind condition
LV aerial line	Private powerline (LV) and other cable systems	0.9	Not permitted	Not permitted
LV aerial line	LV aerial line	0.38	0.6	0.38
Aerial lines $U > 1\text{kV}$ $U \leq 33\text{kV}$	Private powerline (LV) and other cable systems	1.8	Not permitted	Not permitted
Aerial lines $U > 1\text{kV}$	LV aerial line or, Aerial lines $< 11\text{kV}$	1.2	1.2	0.6
Aerial lines $U > 1\text{kV}$ $U \leq 33\text{kV}$	LV aerial line or, Aerial lines $< 33\text{kV}$	1.2	1.2	0.75
Aerial lines $U > 33\text{kV}$ $U \leq 66\text{kV}$	Private powerline (LV) and other cable systems	2.4	Not permitted	Not permitted
Aerial lines $U > 33\text{kV}$ $U \leq 66\text{kV}$	LV aerial line or, aerial lines $< 66\text{kV}$	1.8	1.8	1.2
Aerial lines $U > 66\text{kV}$ $U \leq 132\text{kV}$	Aerial lines $\leq 33\text{kV}$	Not permitted	Not permitted	Not permitted
Aerial lines $U \geq 132\text{kV}$	Aerial lines $> 33\text{kV}$	Not permitted	Not permitted	Not permitted

**Notes relating to Table 3**

1. Any combination of circuits not shown in Table 3 are not permitted.
2. For the purpose of Table 3:
  - (a) no wind refers to:
    - (i) undercrossing conductors at  $15^{\circ}\text{C}$  with no wind blowing; and
    - (ii) overcrossing conductors at maximum design temperature with no wind blowing; and

(b) wind refers to:

- (i) undercrossing conductors at 15°C, and displaced by a 500 Pa horizontal wind at right angles to the undercrossing conductors; and
- (ii) overcrossing conductors at maximum design temperature and not displaced by wind.

**TABLE 4: Clearance distance between circuits on different supporting structures crossings)**

Nominal System Voltage (U)	Clearance Distance (in any direction in metres)
OTHER CABLE SYSTEM OR INSULATED CONDUCTOR $U \leq 1\text{kV}$	0.1
bare conductor $U \leq 1\text{kV}$	0.6
Insulated conductor $1\text{kV} < U \leq 33\text{kV}$	0.6
bare conductor $1\text{kV} < U \leq 33\text{kV}$	1.2
$33\text{kV} < U \leq 66\text{kV}$	1.8
$66\text{kV} < U \leq 132\text{kV}$	2.4
$132\text{kV} < U \leq 275\text{kV}$	2.8
$275\text{kV} < U \leq 330\text{kV}$	3.8
$330\text{kV} < U \leq 500\text{kV}$	5.2

**TABLE 5: Clearance distance between load being transported and aerial lines**

Nominal System Voltage (U)	Clearance distance (in metres)	
	Vertical distance	Horizontal distance
Other cable system or insulated conductor $U \leq 1\text{kV}$	0.33	0.33
$1\text{kV} < U \leq 132\text{kV}$	2.4	1.5
$132\text{kV} < U \leq 275\text{kV}$	3.2	4.6
$275\text{kV} < U \leq 330\text{kV}$	3.7	4.6
$330\text{kV} < U \leq 500\text{kV}$	4.7	5.5



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## **Schedule 4      Infringement notice penalties**

regulations 30 and 33

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Column 1 – Provision of Act or Regulations	Column 2 – Number of penalty units
Section 69	10 penalty units
Sections 99(1) and 99(3)	5 penalty units
Regulations 21, 22, 23, 26, 28(1), 28(2) and 29	5 penalty units
Regulation 40	10 penalty units

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## Schedule 5

regulation 39

### FORM 1

#### NORTHERN TERRITORY OF AUSTRALIA

#### *Electricity Reform Act*

section 94

#### WARRANT (personal application)

1. I, (*name of magistrate*), magistrate, have received an application made personally for a warrant from (*insert name*), an authorised officer\*/electricity officer\* under the *Electricity Reform Act*.

2. On the application, I am satisfied that a warrant should be issued to enter (*insert description of place*) on the following grounds:

#### ACCORDINGLY, I AUTHORISE

\*the above named authorised officer with any assistance and by any force reasonably necessary:

- (a) to enter the place described above; and
- (b) to do anything authorised by the *Electricity Reform Act* in that place.

\*the above named electricity officer, in the company of a member of the police force and with any assistance and by any force reasonably necessary:

- (a) to enter the place described above; and
- (b) to do anything authorised by the *Electricity Reform Act* in that place.

This warrant may only be executed (*insert time or period*)

This warrant ceases to have effect at (*insert time and date*).

Signed:

at (*insert time and date of signature*).

*\*Strike out whichever is inapplicable*

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FORM 2

NORTHERN TERRITORY OF AUSTRALIA

*Electricity Reform Act*

section 95

WARRANT

(application by telephone)

1. I, (*name of magistrate*) magistrate, have received an application by telephone for a warrant from (*insert name*), an authorised officer\*/electricity officer\* under the *Electricity Reform Act*.

2. On the application, I am satisfied that a warrant should be issued urgently to enter (*insert description of place*) on the following grounds:

ACCORDINGLY, I AUTHORISE

\*the above named authorised officer with any assistance and by any force reasonably necessary:

- (a) to enter the place described above; and
- (b) to do anything authorised by the *Electricity Reform Act* in that place.

\*the above named electricity officer, in the company of a member of the police force and with any assistance and by any force reasonably necessary:

- (a) to enter the place described above; and
- (b) to do anything authorised by the *Electricity Reform Act* in that place.

This warrant may only be executed (*insert time or period*)

This warrant ceases to have effect at (*insert time and date*).

Signed:

at (*insert time and date of signature*).

*\*Strike out whichever is inapplicable*

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## ENDNOTES

### 1 KEY

Key to abbreviations

amd = amended	od = order
app = appendix	om = omitted
bl = by-law	pt = Part
ch = Chapter	r = regulation/rule
cl = clause	rem = remainder
div = Division	renum = renumbered
exp = expires/expired	rep = repealed
f = forms	s = section
<i>Gaz</i> = <i>Gazette</i>	sch = Schedule
hdg = heading	sdiv = Subdivision
ins = inserted	SL = Subordinate Legislation
lt = long title	sub = substituted
nc = not commenced	

### 2 LIST OF LEGISLATION

***Electricity Reform (Safety and Technical) Regulations* (SL No. 47, 2000)**

Notified	13 September 2000
Commenced	13 September 2000

***Statute Law Revision Act 2005* (Act No. 44, 2005)**

Assent date	14 December 2005
Commenced	14 December 2005

***Penalties Amendment (Justice and Treasury Legislation) Act 2010* (Act No. 38, 2010)**

Assent date	18 November 2010
Commenced	1 February 2011 ( <i>GazS6</i> , 1 February 2011)

### 3 LIST OF AMENDMENTS

r 2	amd Act No. 44, 2005, s 35
rr 21 – 23	amd Act No. 38, 2010, s 4
r 26	amd Act No. 38, 2010, s 4
rr 28 – 29	amd Act No. 38, 2010, s 4
r 40	amd Act No. 38, 2010, s 4