



ESI G1

GUIDELINES

FOR

TREE CLEARING WORK

by Authorised Person

under

Electricity Safety (Installations) Regulations 2009

**In the vicinity of electric lines with a nominal voltage
of 66kV or less**

Minimum safe distances for authorised tree clearing workers

The Electricity Safety (Installations) Regulations 2009 set out minimum distances from electric lines for a person, tool, equipment, vehicles, crane, backhoe, excavators, elevating work platform and other machines. However, a person engaged in tree clearing work is exempted from complying with these distances in certain circumstances.

Authorised persons engaging in tree management (tree clearing) activities must comply with the Electricity Safety (Installations) Regulations 2009, the Blue Book and any organisational procedures, safe work method statements and Job Safety Assessments to ensure the work can be completed safely.

Extracts from the Regulations are shown below.

Reg 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); 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) ... or

(d) ... or

(e)

- (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

Reg 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.

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.

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

Interpretation:

Safe Approach Distance for an **Authorised Person** is specified in the Blue Book.

An authorised person is a person who:

- has completed a training course approved by ESV, and
- has technical knowledge or sufficient experience to perform the duty concerned, and
- has been endorsed in writing by the organisation (eg the employer) to perform the work.

Note: At the time of issuing this guideline, NUE 260 – Electrical Systems Identification and Powerline Clearance Requirements - is the only course approved by ESV. ESV is assessing other courses with a view approving a new training course. Once a new course is approved, changes will be made to the guidelines and they will be posted on ESV's website.

Before carrying out tree clearing work in the *vicinity of an electric line*, to which regulation 319 applies an authorised person **must notify** the owner of the electric line (an electricity company in most cases).

The *vicinity of an electric line* in this guideline means a situation where there is reasonable possibility of any part of a tree if the tree or any part of the tree that is pruned or cleared could fall closer to than 2m to an electric line with a nominal voltage of 66kV or less.

Note that the safe approach distance includes any object (other than approved insulated equipment) that the person is contacting (eg a tree).

Note also that the Blue Book requires that an additional distance be allowed for sag and sway and for work from an unstable platform such as an EPV.

Under this requirement, a tree is considered an 'object', and an authorised person may not touch it if it is within the safe approach distance specified in the Blue Book. In this case, a suitable access authority or live line method will be required.

Only authorised persons may carry out tree clearing work in accordance with the table below.

Summary of Blue Book Requirements for Authorised Persons Safe Approach Distance from Overhead Electric lines of 66kV or less			
Type of electric line	Authorised Person, Tool & Equipment (mm)	Uninsulated Part of Mobile Plant (mm)	Insulated Parts of Mobile Plant
Insulated low voltage (LV) conductor (i.e. up to 1.0kV)	Insulated Contact	1000	Contact Allowable
1500V DC or less	Insulated Contact	1000	700
LV bare or covered	Insulated Contact	1000	Contact Allowable
Above LV but not exceed 33kV kV	700	1200	700
66kV	900	1400	1000

The safe approach distances must be increased to allow for movement of conductors, movement of the work platform (ie EPV) and movement of the tree branches during the course of the work.

Care must be taken to avoid movements that could result in clearances being infringed.

Where authorised persons cannot ensure that the Safe Approach Distances can be maintained, **an access authority must be obtained** from the owner of the electric line (in most cases, electricity companies).