

Supervision Guideline for Apprentice Cable Jointers

This Guideline has been developed by the Victorian Electricity Supply Industry (VESI) Skills and Training Reference Committee to provide guidance to employers and apprentices.

In the Victorian Electricity Supply Industry

April 2024

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Supervision Guideline for Distribution Underground Apprentices in the Victorian Electricity Supply Industry Version 9 April 2024 UNCONTROLLED WHEN PRINTED

DATE	VERSION	AMENDMENT	NAME	
JULY 2010	1	ORIGINAL	VESI STRC	
SEPTEMBER 2011	2	New cover page Updated footer and version number Update link in Introduction Updated Scope reference General formatting Updated Tables 1 and 2	VESI STRC	
JANUARY 2012	3	Clarification of Cable Jointer "trade person" in background of document	VESI STRC	
JULY 2013	4	Aligned content to the suite of supervision Guidelines to ensure consistency across all Guidelines. General formatting Updated footer and version number	VESI STRC	
NOVEMBER 2013	5	New section in regard to the application of Safe Approach Distance - Special	VESI STRC	
SEPTEMBER 2014	6	Updated the Supervision level definitions	VESI STRC	
FEBRUARY 2021	7	Amended Training requirements for LIVE LV WORK	VESI STRC	
AUGUST 2022	8	Reviewed in line with new Course Code UET30821 - Certificate III in ESI - Distribution Cable Jointing	VESI STRC	
APRIL 2024	9	Updated Work Types table to clarify working on and near live assets Updated Frequently Asked Questions and notes	VESI STRC	

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INTRODUCTION

This Guideline has been developed and established by the Victorian Electricity Supply Industry (VESI) Skills and Training Reference Committee (STRC). Any changes to this Guideline can only be made with the agreement of the VESI STRC.

PURPOSE

This Guideline has been developed to assist both employers and Cable Jointer Apprentices who enter into a training contract, to understand the obligations and expectations in regards to workplace supervision, taking into consideration the welfare of the apprentice in terms of safety and competency development.

SCOPE

This Guideline applies to the supervision of Cable Jointer Apprentices employed in the VESI who are undertaking an apprenticeship to the National Distribution Cable Jointing Qualification.

RESPONSIBILITIES

Employer

- Ensure that employees meet the requirements of this Guideline
- Shall take all reasonable steps to ensure supervision of apprentices is carried out by a person that is competent to carry out the work
- Establish effective coaching/mentoring practices for their apprentices
- Provide opportunities for the Apprentice to develop their knowledge and skills

Supervisors/Crew Leaders

- Ensure that apprentices and relevant employees meet the supervision requirements of this Guideline
- Apply this Guideline when planning or allocating work functions and activities in the work place for apprentices
- Take into consideration the kind of work being undertaken, especially with regard to live LV work or work in the vicinity of live apparatus
- Have regard to the level of competence of the apprentice for the particular task, skill or activity to be performed

Apprentices

 Only undertake work or activity for which they have been trained and/or supervised in accordance with this Guideline.

SUPERVISION FRAMEWORK

The Supervision framework describes the criteria and supervision levels that the employer and Apprentice shall allow for when planning work.

In determining the appropriate level of supervision to apply the following criteria shall be considered:

- Safety of the apprentice
- The work to be carried out
- The experience level of the apprentice
- When the knowledge and skills is attained (off job training)

Apprentices should not undertake tasks unless they have received the relevant training. However this does not restrict an apprentice from observing or assisting qualified personnel undertaking tasks, for which the apprentice is not trained.

Refer to Table 1 which provides guidance on the supervision requirements for types of work and activities that apprentices can undertake.

At all times during the term of their apprenticeship, the apprentice shall be under Direct, General or Broad Supervision as defined below and in Table 1 Work Types and Table 2 Plant Types. The goal is for supervision to progressively diminish from direct to broad in the third or fourth year of the apprenticeship dependent on experience gained and the task with the exception of performing "Live Low Voltage work". Note: Where 'No' is indicated in Tables 1& 2 this means the task is not permitted.

Direct Supervision

The onsite supervising tradesperson shall be in direct visual and audible contact with the apprentice, providing constant instruction and inspection of tasks being performed.

Note: All Live Low Voltage work requires Direct Supervision.

General Supervision

The onsite supervising tradesperson shall make regular face to face contact with the apprentice, delivering progressive instruction and inspection on tasks being performed.

Broad Supervision

The onsite supervising tradesperson shall provide instruction and inspection of tasks being performed by the apprentice.

RECOGNITION OF PRIOR COMPETENCIES

There are situations where an apprentice has previously been assessed as competent and/or authorised to undertake certain activities (e.g. Licence to perform high risk work and/or Network Authorisations).

Exemptions are permitted for these activities provided that the licence to perform high risk work and/or Network Authorisations and appropriate refresher training records are current and with Network Operator approval.

LIVE LV WORK

Under no circumstances shall any apprentice undertake Live LV Work until they have successfully completed training in the national competency standard unit Joint, Terminate and Maintain Energised Low Voltage Underground Polymeric Cable. All Live Low Voltage work requires Direct supervision.

SAFETY OBSERVER ROLE

Apprentices who are new entrants into the industry and who have not acquired relevant skills and knowledge are not to be used as safety observers in their initial 24-month period.

Apprentices may be utilised, after the initial 24-month period, as a safety observer but only if they have: -

- a) completed training in Joint, Terminate and Maintain Energised Low Voltage Underground Polymeric Cable
- b) been trained in rescue and/or escape techniques applicable to the task being performed
- c) been trained in Safe Approach Distances
- d) have an understanding of the task or work practice being observed
- e) an understanding of the functions and movements of plant and equipment.

AVAILABILITY

To be considered for availability the Apprentice must have successfully completed training in Joint, Terminate and Maintain Energised Low Voltage Underground Polymeric Cables and have started their 3rd year of the apprenticeship.

An apprentice can only take on the duties of a second call availability Cable Jointer and cannot sign on to an Access Permit as a recipient in charge (RIC).

The supervising tradesperson must be able to adequately supervise the apprentice at all times as outlined in Table 1.

ACCESS AUTHORITIES

An apprentice Cable Jointer cannot be a 'Recipient in Charge' of an Electrical Access Permit.

First Year Apprentice

If working under an access authority the apprentice shall be bracketed on to the Access Permit as an Instructed Person with an authorised Access Permit recipient.

Second - Fourth Year Apprentice

An apprentice can be Authorised as an Authorised Recipient. This means that they can sign onto access permits in their own right and work within the bounds of the access permit but shall remain under supervision as outlined in Table 1.

Prior to being authorised, an apprentice shall have successfully completed:

- the first year of the apprenticeship
- Apply Access procedures to work on or near electrical network infrastructure training

Post Apprenticeship.

On successful completion of their apprenticeship can sign on to an Access Authority as a Recipient in Charge.

HIGH VOLTAGE SWITCHING

Third Year Apprentice

On the successful completion of the national competency standard unit (Perform High Voltage field switching operation to a given schedule) the apprentice can be classified as an Operator in Training and can undertake switching of the overhead network (only) under direct supervision of an Authorised Operator.

Fourth Year Apprentice

The apprentice can be authorised as a High Voltage (HV) Switching – RSO (Restricted Switching Overhead) operator dependent on the Network Operator Authorisation process after successful completion of the national competency standard unit final assessment. This means they can switch assets as authorised by a Network Operator and issue Access Permits to persons eligible to sign on as a recipient in charge. The apprentice shall be under the general supervision of a HV Operator authorised to a level appropriate to the HV switching being undertaken.

When switching metal clad switchgear, underground network and within zone substations the apprentice shall be classified as an 'Operator in Training' and must be under the direct supervision of an authorised HV Operator at all times.

TABLE 1 - WORK TYPES

This table provides guidance on the supervision requirements and the activities apprentices can undertake. It has been aligned to the training package as delivered for the Certificate III in ESI – Distribution Underground Qualification.

NOTE: Where years 2 and 3 are split this does not indicate any time period. The undertaking of these tasks <u>shall</u> <u>not</u> commence until the apprentice has successfully completed the related Unit of Competency from the Training

Package.

ackage.		1 st six months	2 nd six months	Yea	ar 2	Yea	r 3	Year 4
Yard / Ground work		General	Broad	Broad		Broad		Broad
General	Ground work at job site	Direct	General	General Broad			Broad	
	Traffic mgt.	No	General		General Broad			Broad
Duct laying		Direct	General		General		eral	Broad
Cable -	Cable installation	Direct	General	General		General		Broad
	Cable winching	No	Direct General General		eral	Broad		
	Civil works	Direct	Direct	General		Gen	eral	Broad
	Install SS earthing	Direct	Direct	Ger	General		eral	Broad
Earthing	PL and pole earth installation / maintenance	Direct	Direct	General		Gen	eral	Broad
Equipment	Pit/pillar Installation	Direct	Direct	Ger	eral	Gen	eral	Broad
Equipment Installation	Kiosk	Direct	Direct	Ger	eral	Gen	eral	Broad
installation	LV- Cabinets	Direct	Direct	Ger	eral	Gen	eral	Broad
Working aloft	Ladder work aloft (EAP or not yet commissioned)	Direct	Direct	Ger	eral	Gen	eral	Broad
Working alon	EWP work aloft ¹ (EAP or not yet commissioned)	Direct (not operating EWP)	Direct	Ger	eral	Gen	eral	Broad
Public lighting	New PL pole installation	Direct	Direct	Ger		General		Broad
	PL maint. and repair (live)	No	No	No	Direct	Dire		General
Cable lainting	LV Dead jointing - XLPE	No	Direct	Dir	Direct General		eral	Broad
Cable Jointing under EAP or not	LV Dead jointing – P/lead	No	No	No	No Direct Direct			General
yet	LV Dead jointing – Consac	No	No	No	Direct	Dire	ect	General
commissioned	HV jointing - XLPE	No	Direct		ect	General		Broad
	HV jointing – P/lead	No	No		No Direct			Broad
	Install UG services (de-energised)	Direct	Direct		eral	General		Broad
Servicing	Install UG services (live)	No	No	No		Dire		Direct
Corvioling	Neutral Supply Testing	No	No		No Direct			Direct
	Undertake Polarity Test	No	No		0	Direct		Direct
Live LV Jointing Works	Live LV jointing	No	No	No	Direct	Dire		Direct
	Make LV dead	No	No	No	Direct	Dire		Direct
	Install UG services (live)	No	No	N	0	Dire	ect	Direct
Live LV work on kiosk and indoor substation equipment and cables	Work with any individual LV circuit(s) energised	No	No	No	Direct	Dire	ect	Direct
	Attach LV cables to poles carrying other live assets	Direct ²	Direct ²	Direct ³	Direct	Direct		General
	Attach HV cables to poles with no exposed live LV on pole	Direct ⁴	Direct ⁴	Dir	Direct Direct		General	
Pole Works	Terminate LV cables on poles carrying other live assets	Direct ⁵	Direct ⁵	Direct ⁶	Direct	Direct		General
	Terminate LV cables to energised LV apparatus	No	No	No	Direct	Direct		Direct
	Terminate HV cables with live assets on pole	No	No	No	Direct	Direct		General
Fault Finding	LV / HV	Direct ⁷	Direct ⁷	Dire	ect ⁷	Direct 7	Direct	General

¹ Must be 18 years of age and hold the relevant licence to perform high risk work, (boom-type elevating work platform operation).

Note: The clearances listed above can be reduced to the appropriate Safe Approach Distances when the apprentice has successfully completed the Unit of Competency for live LV work

² Only when a distance of at least 1m is maintained below the lowest energised circuit.

³ Only when no contact is made with energised LV conductors or equipment and SAD's are maintained to energised HV conductors

⁴ Only when a distance of at least 1m is maintained below energised HV conductors or apparatus.

⁵ Only to switchgear that is not connected to energised LV conductors and is at least 1m below exposed energised LV conductors.

⁶ Only to switchgear that is not connected to energised LV conductors and no contact is made with energised LV conductors or equipment.

Only as an observer / assistant until the apprentice has successfully completed the Unit of Competency Locate faults in underground power cables.

TABLE 2 - PLANT TYPES

During the course of an apprenticeship, it is expected that apprentices will have worked across a representative range of plant and equipment, consistently and to industry requirements with supervision ranging from direct to general to broad. They will also, have concurrently attained the relevant underpinning knowledge and skills to support workplace performance.

Type of Work
Chainsaw / Demo Saw
Self-Loading Cable Trailer
Small Capstan Winch
Cable Winch
Truck -mounted crane < 10t
Forklift
EWP
Truck- mounted crane > 10t

1 st six Months	2 nd Six Months
No	Direct

Year 2	
General	
	Ī

Year 3	Year 4
Broad	Broad

Prior to operation an apprentice must meet all regulatory requirements, age, training and hold the relevant WorkSafe licence to perform high risk work for the following:

- a) Forklift truck operation
- b) Boom-type elevating work platform operation
- c) Vehicle loading Crane > 10mt(See Recognition of prior competencies on page 6 for further information)

TABLE 3 - FREQUENTLY ASKED QUESTIONS

Type of Work	1 st six Months	2 nd Six Months	Year 2	Year 3	Year 4
Can they go on availability? ³	No	No	No	Yes ³	Yes ³
Can they climb new poles and structures (not commissioned)	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹
Can they climb commissioned poles and structures- Under EAP	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹
Can they work live (LV)	No	No	No Yes ¹	Yes ¹	Yes ¹
Can they be a safety observer - Live LV work? ²	No	No	No	Yes ²	Yes ²
Can they be a safety observer – HV Live Line Work?	No	No	No	No	No
Can they undertake polarity/NST testing?	No	No	No Yes ¹	Yes ¹	Yes ¹
Can they perform LV switching?	No	No	No Yes ¹	Yes ¹	Yes ¹
Can they supervise contractors?	No	No	No	No	No
Can they perform Traffic Control?	No	Yes ¹	Yes ¹	Yes ¹	Yes ¹
Can they conduct a Safe to Approach test?	No	No	No Yes ¹	Yes ¹	Yes ¹
Can they undertake HV operating? ⁴	No	No	No	No Yes 4	Yes ⁴
Can they sign on an Electrical Access Permit? ⁵	Yes ⁵	Yes ⁵	Yes ⁵	Yes ⁵	Yes ⁵
Can they be a Recipient in Charge of an Electrical Access Permit? ⁵	No	No	No	No	No

NOTE: Where years 2 and 3 are split this does not indicate any time period. The undertaking of these tasks shall not commence until the apprentice has successfully completed the related Unit of Competency from the Training Package.

¹ Refer to Supervision type as required in Table 1 ² Refer to Safety Observer requirements on page 6 ³ Refer to Availability requirements on page 6 ⁴ Refer to High Voltage Switching requirements on page 7 ⁵ Refer to Access Authority requirements on page 7