

Guide for supervising electrical apprentices

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Effective supervision allows apprentices to develop the knowledge and skills they need to competently perform electrical work in a safe working environment, free from electrical and work health and safety risks.

Effective supervision includes:

- legislative requirements
- compliance with work health and safety and electrical safety requirements
- technical compliance with relevant standards
- working under a safe system of work.

Supervision duties

Persons conducting a business or undertaking (PCBU) and supervising electrical workers (supervisors) have obligations under the Electrical Safety Regulations 2024 regarding the supervision of apprentices. PCBUs and supervisors must be aware of their duties and ensure apprentices are supervised in accordance with the Regulations. Penalties can apply if these obligations are not met.

PCBUs and supervisors are responsible for managing the work program of apprentices to ensure they are exposed to the full scope of work needed to successfully complete their workplace evidence collection (e.g. e- profiling or logbook) requirements.

PCBUs must ensure that nominated supervisors are licensed and competent to supervise the technical and safety aspects of the work and are experienced enough to provide effective supervision. PCBUs must also ensure that supervisors understand and comply with their responsibilities under the Electrical Safety Regulations 2024.

Supervisors must only supervise electrical work within the scope of their work licence. As supervisors have the greatest influence on an apprentice's attitude to health and safety, they need to have the ability to effectively provide safety advice and immediately correct any unsafe work practices. Apprentices must not be supervised by other apprentices or trades assistants. Supervisors have a duty to ensure the apprentice knows who is supervising them and that they must not take instructions in relation to the electrical work from another person.

Supervisors must always be available to apprentices. Whether this is in the immediate vicinity of the worksite or contactable through other means such as a phone (depending on the level of supervision deemed suitable for the apprentice and for the task at hand).

Supervision requires more than just knowing how to do the work. Supervisors will often be doing work themselves while monitoring and providing direction to apprentices at the same time. Effective supervision is an acquired skill and not all tradespeople are suited to supervisory roles.

The licensed electrical worker supervising an apprentice is ultimately responsible for any testing of electrical work performed by the apprentice.

Determining supervision levels

Supervisors have a duty to determine the appropriate level of supervision for the various tasks to be performed by an apprentice.

The level of supervision required (direct, general (level 1) or general (level 2)) will depend upon:

- the type of work performed and the associated risks
- the level of training and competence of the apprentice.

Type of work

Supervisors need to consider the type of work to be performed and the possible risks associated with that work.

Consider:

- the task to be performed
- the location
- the environment
- work health and safety risks
- electrical risks.

Young workers often do not have the same understanding of risk that comes from experience on the job. Supervisors should assess the level of risk based on the apprentice, not their own understanding of the risk associated with the work.

Supervisors must include the apprentice in the risk assessment process and together manage any risks they identify to develop the apprentice's skills in this area.

Factors to consider include:

- the work location (e.g. residential, commercial, industrial, mining)
- whether it is a new installation or alterations/additions to an existing installation
- whether the work will be performed near live electrical equipment
- the voltage and potential fault current levels associated with the installation.

Training and competence

The technical knowledge, practical skills and safe working ability of the apprentice need to be considered when determining the most appropriate level of supervision. The supervisor should use:

- information from the apprentice's registered training organisation
- on the job training records
- their own observations and knowledge of the apprentice performing the work.

Personal knowledge and observation of an apprentice's ability is one of the most important considerations when determining the appropriate level of supervision. Quite often a supervisor has worked with an apprentice before and has a good understanding of the apprentice's level of competence and their attitude or approach to work. Value and use this knowledge when determining the degree of supervision required.

When you're supervising an apprentice for the first time, talk to other tradespeople they have worked with, the PCBU and the apprentice. This will assist in determining the appropriate degree of supervision. However, you need to assess the apprentice yourself to determine the degree of supervision for each task.

Young workers (aged between 15 and 24) perceive risk differently and could be inexperienced in the workforce. This means that when a situation becomes unsafe they are less likely to identify and report a safety concern or even understand the significance of the risk.

Younger workers can often have personal issues that impact their work. While more experienced workers can remain focused at work, younger workers may not yet have developed this ability and are often easily distracted. Supervisors need to check in regularly with younger workers to ensure they are focused.

Supervision levels

Effective supervision ensures work is carried out safely and correctly and apprentices develop the knowledge, skills and ultimately the competency to transition from being an apprentice to a tradesperson.

The three levels of supervision, direct, general and General (level 2), aim to ensure apprentices develop their knowledge and skills in the technical aspect of the trade, as well as the understanding of the risks associated with work and the ways to manage those risks. Apprentices need to transition through the three stages of supervision to best prepare for the completion of their apprenticeship. An apprentice who is never provided the opportunity to work under General (level 2) supervision is likely to struggle as a tradesperson, creating a risk to themselves and others.

Supervision levels for apprentices should diminish gradually over the course of an apprenticeship. Remember that each apprentice develops at a different rate. Time in the apprenticeship is not the only indicator of an apprentice's readiness to transition to different levels of supervision. Further, different levels of supervision might apply to the same apprentice depending on the task at hand. Supervisors must determine the appropriate level of supervision that will apply to a particular apprentice for the particular task at hand.

Supervision Ratios

Regulation 57(3)(a) of the Electrical Safety Regulations 2024 provides the maximum number of apprentices that can be supervised by a supervisor at a time. The number of apprentices that can be effectively supervised will depend on the level of supervision that will apply to the task at hand. In accordance with the Regulations, a supervisor may supervise:

- in the case of direct supervision – no more than one apprentice at a time; and
- in the case of general supervision (level 1) – no more than three apprentices at a time; and
- in the case of general supervision (level 2) – no more than five apprentices at a time.

Direct supervision

Direct supervision is when a supervisor constantly monitors the apprentice. The supervisor should always remain readily available (within sight and/or earshot).

Direct supervision is usually appropriate where:

- the apprentice is new to the task
- the apprentice has not demonstrated ability to perform the task to a minimum standard
- the assessed risks determine direct supervision is required for the task
- the apprentice has not completed off-the-job training that supports competent performance of the task
- unplanned events are beyond the apprentice's ability to manage
- the work includes live work or work near exposed live parts.

General (level 1) supervision

General supervision is when a supervisor is not constantly reviewing the apprentice but remains available in person (this does not include face time or video conferencing) for assistance or instruction as required.

General supervision is usually appropriate where:

- the apprentice has demonstrated their ability to perform the task safely to minimum standards without the need for constant intervention
- the apprentice has demonstrated an understanding of any risks and can manage those risks appropriately
- the assessed risks determine general supervision is required for the task
- the apprentice has an appropriate level of knowledge and practical skill from completing off-the-job and on-the-job training
- the apprentice has demonstrated an ability to manage or seek assistance with reasonably predictable unplanned events.

General (level 2) supervision

General (level 2) supervision is when a supervisor only needs to make occasional face to face contact at intervals determined suitable by the supervisor (at least once per day). Adequate apprentice supervision cannot solely be provided from an offsite location by electronic means such as phones, radios and webcams.

General (level 2) supervision is usually appropriate where:

- the apprentice has demonstrated their ability to perform the task safely to acceptable standards without the need for supervisor intervention
- the apprentice has demonstrated an understanding of any risks and has the ability and demonstrated how to manage those risks appropriately
- the assessed risks determine General (level 2) supervision is required for the task
- the apprentice has a significant level of knowledge and practical skill from completing off-the-job and on-the-job training
- the apprentice has demonstrated an ability to manage or seek assistance with unplanned events.

Tables 1 and 2 detail some of the electrical tasks that an apprentice performs and gives suggestions for typical amount of time spent under each type of supervision for that work. **The amount of experience is determined from the date the apprentice has completed their first block of trade school.** General supervision is only appropriate where an apprentice has completed all relevant training (including on and off the job training) relevant to the particular task at hand.

The table is a guide only and each apprentice needs to be assessed individually. It is based on the [Energy Skills Australia National Supervision Guidelines for Electrotechnology Apprentices](#).

Supervision types and times by type of electrical work guide

Table 1 – Electrical work

Type of electrical work Abbreviations. • LV means Low Voltage • RTO means Registered Training Organisation.	Type of supervision for amount of experience ¹				
	0 to 6 months	6 to 12 months	12 to 24 months	24 to 36 months	36 to 48 months
Install cable support and mechanical protection	Direct	Direct or General (level 1)	General (level 1)	General (level 2)	General (level 2)
Lay wiring or cabling and terminate accessories exceeding extra-low voltage	Direct	Direct or General (level 1)	General (level 1)	General (level 1)	General (level 2)
Install apparatus and equipment exceeding extra-low voltage	Direct	Direct	Direct or General (level 1)	General (level 1)	General (level 2)
Maintain, troubleshoot and repair faults associated with apparatus and circuits exceeding extra-low voltage (De-energise)	Direct	Direct	Direct	Direct or General (level 1)	General (level 2)
Proving de-energisation of LV Installations and Equipment (Verify isolation from all sources of supply)	The person supervising is responsible for proving isolation before an apprentice with less than 24 months experience commences the work but the apprentice should be required to personally reconfirm de-energisation on every occasion to instil good working practices.			Direct	Direct or General (level 1) ²
Test LV apparatus & circuits (de-energised)	Direct	Direct	Direct	Direct or General (level 1)	General (level 1) or General (level 2) ³
Undertake commissioning procedures for LV apparatus and associated circuits (No access to exposed LV)	Direct	Direct	Direct	Direct or General (level 1)	General (level 2)
Testing for LV System integrity and operability (Energised LV)	Simulated at RTO only	Simulated at RTO only	Simulated at RTO only	Simulated at RTO only	Direct
Install & maintain explosion protect equipment	Direct	Direct	Direct	Direct or General (level 1)	General (level 1)

<p>Disconnecting and reconnecting fixed wired electrical equipment connected to supply up to 1000 volts AC or 1500 volts DC</p>	<p>The person supervising is responsible for proving isolation before apprentice with less than 24 months experience commences the work but the apprentice should be required to personally reconfirm de-energisation on every occasion to instil good working practices.</p>			<p>Direct</p>	<p>Direct or General (level 1)²</p>
<p>Attaching flexible cords and plugs for supply up to 1000 volts AC or 1500 volts DC</p>	<p>Direct</p>	<p>Direct</p>	<p>Direct or General (level 1)</p>	<p>General (level 1) or General (level 2)</p>	<p>General (level 2)</p>

Notes Table 1

- 1 A school based apprentice has double the nominal duration of a full time apprentice, i.e. they do not complete their 1st year until after they have completed 2 years of school. This is largely due to the fact that school based apprentices only attend in the workplace 1 or 2 days a week during the initial 2 years period.
- 2 General (level 1) supervision should be restricted to apprentices who have completed all relevant training and to jobs where the supervisor has completed a hazard assessment and ensured the apprentice is competent to undertake the de-energisation task.
- 3 General (level 2) supervision is only appropriate after successful completion of the electrical installation safety testing component of training but all electrical apprentices are to be competent in testing a full installation at the point of becoming eligible for a licence

Table 2 – Other related work

Type of work Note: ELV means Extra-Low Voltage	Type of supervision for amount of experience				
	0 to 6 months	6 to 12 months	12 to 24 months	24 to 36 months	36 to 48 months
Assembling and installing ELV and non-electrical hardware or equipment	Direct	Direct or General (level 1)	General (level 1)	General (level 1)	General (level 2)
Installing ELV cable support and mechanical protection	Direct	Direct or General (level 1)	General (level 1)	General (level 1)	General (level 2)
Lay ELV wiring or cabling and terminate ELV accessories	Direct	Direct	Direct or General (level 1)	General (level 1)	General (level 2)
Maintain, troubleshoot and repair faults associated with ELV Apparatus & circuits	Direct	Direct	Direct	Direct or General (level 1)	General (level 2)
Undertaking commissioning procedures of ELV apparatus and associated circuits	Direct	Direct	Direct	Direct or General (level 1)	General (level 2)
Testing ELV apparatus and circuits	Direct	Direct	Direct	Direct or General (level 1)	General (level 2)
Handling non-flammable refrigerants	Direct	Direct	General (level 1)	General (level 1)	General (level 2)
Handling flammable refrigerants	Direct	Direct	Direct	General (level 1)	General (level 2)