Inadvertent Contact with Electricity
Guide and Critical Risk Standard

Safety is everyone’s responsibility
Inadvertent Contact with Electricity Guide

Safety is everyone's responsibility
GENERAL ELECTRICAL SAFETY FOR ALL

⚠️ Do your tools & equipment meet electrical safety standards? Are they tested and tagged? Can you see any damage?

✔️ Only use mains-powered hand tools where cordless alternatives are unsuitable

⚠️ Does the facility have residual current devices (RCDs)? If not, use portable residual current devices. (Portable RCDs are used to protect power tools and other electrical equipment)

⚠️ Do you have the correct safeguards in place? Are circuits and electrical equipment protected from contact with water?

✔️ Elevate electrical leads if needed to protect them from surface water or traffic.
Consult the electricity service provider to identify the recommended safety approach and separation distances, bearing in mind the maximum reach of mobile plant. Document your approach, including separation distances, in procedures or SWMS.

Maintain the required separation distance using barriers (fencing) where practical – or physical markers (cones or flags). Use spotters if only using physical markers.
Check before you begin electrical work

⚠️ Are you a competent person authorised to do this work? **DO NOT** start work until a Supervisor has validated you are a competent person to work safely in this area and documented the work you are doing.

⚠️ Do you know who is responsible for electrical safety in the area you’re working in? If it’s not you, check in with them before you start work.

❌ If you are not sure whether it is safe – **DO NOT** touch or work on any electrical items.

If possible, only work on isolated equipment

❌ **DO NOT** start work until plant, equipment and circuits are isolated and stored energy dissipated. Isolate as far upstream as you can.

✅ For simple isolations, use a JSEA, “Take 5” or similar process. For complex isolations, use a documented isolation plan, procedure or SWMS. All isolation procedures must be independently checked and authorised.

✅ Verify the isolation has been effective by making sure each exposed part is de-energised. Test circuits for dead following the “prove, test, prove” process.

✅ Isolate nearby equipment if there’s a chance you might accidently touch it.

✅ Make sure any exposed conductors in your immediate work area are separated and insulated.

✅ Attach your personal lock to the isolator, hasp, lock box, or group lockout board.

❌ **DO NOT** re-energise circuits until all personal locks have been removed.

Only work live if there is no reasonable alternative. Attempt fault finding first in a de-energised environment.
If you have to work on live circuits

- Get documented approval before you start
- For live fault finding, prepare and implement a task-specific JSEA or SWMS
- Use approved, insulated tools and PPE
- Put up barriers and/or signage
- Make sure a safety observer trained in Low Voltage Rescue is present at all times, with a Low Voltage Rescue kit immediately available.

While you are carrying out electrical work

- If you walk away (even for a moment) – DO NOT leave energised items or work unattended. Either de-energise OR put a safeguard in place
- As the job progresses, or after you’ve left it unattended, test circuits for dead following the “prove, test, prove” process
- If you are concerned about safety – stop work and report the issue to the work area manager and/or your HSE team.
If you are working in damp conditions

- Use de-humidifiers in high humidity
- Prevent water-generating activities, such as water-jetting or concrete-cutting, and electrical work, including welding, occurring at the same time
- **On a ship:** if possible, ship staff must remove bilge water prior to electrical work
- **Outdoors:** Use “stop work” protocols if rain or lightning could occur.
Inadvertent Contact with Electricity
Critical Risk Standard

Safety is everyone's responsibility
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Introduction

The Thales Australia Critical Risk Standards describe the minimum requirements for controlling each of the critical work health and safety risks that are common to our operations and workplaces. The Critical Risk Standards provide a high level framework for managing health and safety hazards (Figure 1).

As shown in Figure 2, each Critical Risk Standard comprises a set of Critical Controls. For each Critical Control there are:

1. Minimum requirements that must be applied in all Thales Australia controlled operations, and
2. Additional requirements that may be applied based on a site-specific or task-specific risk assessment.
Scope

This Critical Risk Standard describes the Critical Controls for electrical work and applies to all Thales sites and operations.

Where Thales Australia does not have control of the worksite or is working under a client’s safety management system, then:

- The client’s standards shall be applied if they are equal or higher, and
- The Thales Australia Standard shall be applied for aspects where the client’s system is “silent”.

If the client’s standards are lower and this presents a material risk then this must be escalated with the Thales Australia Contract Manager.

What if a Critical Control Cannot Be Applied?

If for any reason there are circumstances where the Minimum Requirement for a Critical Control cannot be met, then a formal Control Standard variation is required.

Deviation from the requirements set out in each Control Standards shall be formally approved by a variation which involves:

- A documented and detailed risk assessment of the situation;
- A documented recommendation supported by the Business Safety Manager;
- A documented recommendation from a Technical Expert where appropriate; and
- Formal approval from the Business General Manager or Business Vice President that the level of risk as a result of the alternate control measures is understood, and considered acceptable to the organisation.

Contracted Electrical Work

Contracted electrical workers and their Supervision must be inducted in this Critical Risk Standard.

Contractors are required to meet or exceed this Standard when undertaking work for Thales Australia where there is a risk of inadvertent contact with electricity.

Thales must provide contractors sufficient information to effectively isolate the electrical circuits, including adjacent circuits where required, within their scope of work.
## Definitions

The following terms are used in this Risk Standard. Additional definitions can be found in the reference documents.

<table>
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<tr>
<th><strong>Critical Risk</strong></th>
<th>A risk where there is potential for a fatality or life-altering injury.</th>
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<tr>
<td><strong>Critical Control</strong></td>
<td>A control that is crucial to preventing the event or mitigating the consequences of the event. The absence or failure of a critical control would significantly increase the risk despite the existence of the other controls.</td>
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<tr>
<td><strong>Minimum Requirements</strong></td>
<td>Aspects of the Critical Control that must be applied in all Thales Australia controlled operations.</td>
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<tr>
<td><strong>Additional Requirements</strong></td>
<td>Aspects of the Critical Control that may be applied based on a site-specific or task-specific risk assessment.</td>
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<tr>
<td><strong>Electrical work</strong></td>
<td>Electrical work is defined as any work that exposes any person or people to a risk category above Risk Class 1 under normal or fault conditions as specified in AS/NZS62368.1:2018. Risk Class 1 (RC1) is specified as: A condition where a risk of exposure to electricity is possible in excess of the identified values below in normal or fault conditions, with normal or exceptional use - 60 Volts and 2 milli Amperes, Direct Current - 30 Volts RMS and 0.5 milli Amperes Alternating Current Risk Categories above RC 1 also extends to work being conducted on energised and non–energised equipment of all types and is not limited to the person conducting the work and can include bystanders. Electrical Risks are further into six categories 1. EL1, EL2, EL3 = Electrical energy 2. PS1, PS2, PS3 = Stored energy or wattage 3. CS1, CS2, CS3 = energy from or that can make a Chemical reaction 4. MS1, MS2,MS3 = Kinetic energy, energy stored in the rotation of a fan for instance 5. TS1, TS2,TS3 = heat stored or generated (things that get hot, also where the heat might remain after power is removed) 6. RS1, RS2, RS3 = Radiated energy All of these are considered “Electrical Safety” Issues and have legal standard as such. They are generated by an electrical energy source or present in electrical equipment. A risk category is assessed at the highest level of risk category present. Examples of electrical work above RC1 can include but not limited to - Disassembly/Reassembly/Repair of a device that is powered from Mains supply - Fault Finding &amp; Testing equipment and devices above the RC1 threshold - Assembly of electrical devices above the RC1 threshold - Product design of electrical equipment in excess of the RC1 threshold - Temporary and Permanent connections/disconnections to any supply in excess of the RC1 threshold Any work that meets the description of Electrical work is to be only carried out by an Electrical worker.</td>
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</table>
| **Electrical workers** | Includes the following groups:  
• Thales Australia employees who are licensed electrical workers  
• Supervisors and managers of licensed electrical workers  
• Electrical Contractors  
• All other electrical licence holders conducting electrical work on behalf of Thales Australia.  
• All electrical associated trades (e.g.: trades undertaken or where a risk assessment refers to this requirement) |
| **Working Live** | Working live (energised electrical work) is electrical work carried out in circumstances where the part of electrical equipment being worked on is connected to electricity or ‘energised’. Critical Control E4 applies to all energised electrical work with the exception of fault finding. |
| **Fault Finding** | Fault finding means the testing of the operation of electrical equipment to determine if that electrical equipment is safe and working correctly. Critical Control E3 applies to all fault finding work. |
| **Like for like** | Replacement of part with the same or equivalent manufacturer’s part number or an OEM approved alternative. |
| **SWMS** | Safe Work Method Statement |
| **JSEA** | Job Safety and Environment Analysis |
| **Complex isolation** | A complex isolation involves:  
• more than 2 isolation points, or  
• more than 2 energy sources. |
# Inadvertent Contact with Electricity Critical Controls

The minimum requirements for preventing an inadvertent contact with electricity during electrical and associated work are:

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<td>Only trained and competent persons may perform electrical work.</td>
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<td><strong>E2</strong></td>
<td>All electrical work is to be conducted on isolated plant, equipment and circuits. If this is not reasonably practicable, then Critical Controls E3 or E4 apply.</td>
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<td><strong>E3</strong></td>
<td>Fault-finding on energised plant, equipment and circuits is subject to additional controls.</td>
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<td><strong>E4</strong></td>
<td>With the exception of fault-finding, working on live electrical circuits is only permitted when there is no reasonably practicable alternative and with specific additional controls in place.</td>
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<tr>
<td><strong>E5</strong></td>
<td>Isolation procedures must be independently checked and authorised.</td>
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<td><strong>E6</strong></td>
<td>Each person working on an isolated circuit must be protected from electricity and other energy sources by their own personal locks.</td>
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<td><strong>E7</strong></td>
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<td>Facilities, plant and equipment enclosures must be maintained to prevent uncontrolled ingress of water.</td>
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<td><strong>E13</strong></td>
<td>Underground and concealed electrical services must be located prior to any excavation or penetration.</td>
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<td><strong>E14</strong></td>
<td>Where isolation is not reasonably practicable, barriers or physical markers must be used to maintain the clearance distances between mobile plant and overhead electrical services.</td>
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E1 Training and Competency

Only trained and competent persons may perform electrical work.

MINIMUM REQUIREMENTS

- Each site shall have a system for verifying and recording the qualifications of Thales Australia electrical workers.
- Each site shall have a system for verifying the qualifications of contracted electrical workers.
- Each site shall have a risk-based system for assessing the initial and ongoing competency of electrical workers.
- Workers who assess the competency of others must be qualified and experienced electrical workers who are authorised in this role by the site’s senior leadership.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- The qualifications of electrical contractors provided ongoing or routine services should be verified upon site induction and recorded in the contractor management system. The qualifications of electrical workers providing ad hoc services may be randomly checked, for example, at visitor sign-in or during site safety walks.

NOTES AND REFERENCES

- A “risk-based” system groups electrical work into different levels of risk and applies more frequent and thorough competency assessment for workers doing high risk electrical work, such as working live.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
E2 Isolation

All electrical work is to be conducted on isolated plant, equipment and circuits. If this is not reasonably practicable, then Critical Controls E3 or E4 apply.

MINIMUM REQUIREMENTS

- No electrical work may proceed until plant, equipment and circuits are isolated and stored electrical energy is dissipated.
- Each exposed part is treated as energised until it is isolated and determined not to be energised.
- Isolation devices must be fit for purpose.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Isolation must take place as far “upstream” as is reasonably practicable.
- Adjacent plant and equipment shall be isolated where there is a foreseeable risk of inadvertent contact with electricity.
- Consideration should be given to the use of earthing or test cages to reduce the potential for induced voltages from adjacent circuits.
- If there are any exposed conductors in the immediate work area they should be separated by design or segregated and protected with insulated barricades, insulated shrouding or insulated material to prevent inadvertent or direct contact. This shall be described in the Isolation Plan, JSEA, SWMS or SOP.

NOTES AND REFERENCES

- “Upstream” means as close to the incoming electrical supply as possible.
- “Isolation devices” includes the equipment used to lock out isolators, fuses, circuit breakers and cap power leads.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5.6 or A.6.7 (Electrical Isolation – Ships)
E3 Fault Finding on Energised Circuits

Fault-finding on energised plant, equipment and circuits is subject to additional controls.

MINIMUM REQUIREMENTS

- Fault finding should first be attempted in a de-energised environment using de-energised testing methods.
- Fault-finding on energised plant, equipment and circuits must only be performed by a competent and authorised electrical worker.
- Barriers must be installed to prevent electrical workers from inadvertently contacting exposed conductive parts.
- Only approved and insulated tools and PPE may be used.
- A task-specific JSEA or SWMS must be prepared and implemented.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Where practicable, signal generators or lower voltages must be used to further reduce the risk of exposure to energised circuits.
- Barriers and/or signage should be used to prevent unauthorised access whilst fault-finding is carried out.
- A safety observer trained in Low Voltage Rescue must be present when an electrical worker is working on or near live circuits.

NOTES AND REFERENCES

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5 Part 2 (Safe Electrical Work Instruction (Electrical Workers))
E4 Working Live

With the exception of fault-finding, working on live electrical circuits is only permitted when there is no reasonably practicable alternative and with specific additional controls in place.

MINIMUM REQUIREMENTS

- Working on or near live circuits must only occur where there is no reasonably practicable alternative. Working live is never allowed for convenience.
- Working on energised plant, equipment and circuits must only be performed by a competent and authorised electrical worker.
- Working on or near live circuits is subject to documented approval.
- Only approved and insulated tools and PPE may be used.
- A safety observer trained in Low Voltage Rescue must be present at all times when an electrical worker is working on or near live circuits. A Low Voltage Rescue kit must be immediately available.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Barriers and/or signage should be used to prevent unauthorised access whilst work on live circuits is carried out. This is particularly important if it is impractical for the Safety Observer to manage access without compromising their primary role.

NOTES AND REFERENCES

- For routine tasks, “documented approval” can be given through authorisation of a task-specific SWMS or SOP. Generic trouble-shooting procedures are not acceptable.
- For non-routine tasks, documented approval may be given through a permit system. Whilst additional paperwork may slow work down, it is important that the system include a gateway where working live is authorised subject to a robust set of controls.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5 Part 2 (Safe Electrical Work Instruction (Electrical Workers))
**E5 Isolation Procedures**

Isolation procedures must be independently checked and authorised.

**MINIMUM REQUIREMENTS**

- A documented isolation plan, procedure or SWMS is required for any “complex” isolation. All isolators referenced in procedures must be distinctly labelled.
- Documented procedures for routine electrical isolations must be checked and authorised by an independent qualified electrical worker nominated by the plant or equipment owner.
- SWMS for non-routine electrical isolations must be checked by a second electrical worker prior to being applied.
- Subject Matter Expert(s) must be engaged for developing procedures to isolate circuits where drawings are incomplete and/or cannot be relied upon.

**ADDITIONAL REQUIREMENTS**

The following additional requirements should be considered in the risk assessment:

- Documented isolation plans, procedures and SWMS are not required for simple (ie non-complex) isolations, however, a JSEA, “Take 5” or similar process should be used.

**NOTES AND REFERENCES**

- See the Definitions section for the meaning of a “complex” isolation.
- “Procedures” may be in the form of Safe Work Method Statements, Job Safety Analysis, Standard Operating Procedures or Safe Work Instructions.
- The intent of “independent” is that the person is not immediately associated with the job such that they can review the isolation procedure with a “second set of eyes”.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5.6 (Isolation and Lockout Instruction)
E6 Lock Out

Each person working on an isolated circuit must be protected from electricity and other energy sources by their own personal locks.

MINIMUM REQUIREMENTS

- Prior to starting work, each person working on an isolated circuit must:
  - check they are following the correct isolation plan or procedure
  - verify the isolation has been effective, and
  - attach their personal lock(s) to the isolator, hasp, lock box, or group lockout board.
- Circuits must not be re-energised until all personal locks have been removed.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- “Smart” lock out technology solutions may be used.
- Tags may be used to communicate information about the isolation or the isolating person. Tags must not be used to secure isolators.

NOTES AND REFERENCES

- Persons observing work only do not need to apply a personal lock.
- Work on client sites must follow the client’s isolation protocols and procedures. Where the client’s protocols do not provide adequate protection this must be escalated to the Thales Australia site manager.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5.6 (Isolation and Lockout Instruction) 83392508 – Section 5.6 or A.6.7 (Electrical Isolation – Ships)
E7 Test for Dead

Circuits must be tested for dead following the “prove, test, prove” process.

MINIMUM REQUIREMENTS

- Circuits must be checked to confirm the status of an electrical isolation following the sequence “prove, test, prove”, whereby:
  1. Prove: The test instrument is proved to be functioning correctly.
  2. Test: The circuit or item is tested to confirm it is de-energised.
  3. Prove: The test instrument is re-checked to be functioning correctly.
- A test for dead is undertaken prior to any work on the isolated circuit(s), routinely as the job progresses, and after any circuit has been left unattended.
- Electrical workers must be competency assessed in conducting prove, test, prove as applied to their normal scope of work.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Proximity voltage detectors must not be used to test for dead but may be used as a confirmation of an isolation.

NOTES AND REFERENCES

- Test instruments must meet relevant standards and be calibrated and maintained in accordance with the manufacturer’s requirements.
- The frequency of competency assessments must be determined by the site and included in the site’s training system.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 5 Part 2 (Safe Electrical Work Instruction (Electrical Workers))
Design, configuration management and management of change processes must be applied to electrical circuits, plant and equipment.

**MINIMUM REQUIREMENTS**

- The Thales Australia process for safety in design must be applied to any new electrical installation or modification.
- The configuration of electrical circuits must be maintained by applying a “like-for-like” approach to parts replacements.
- Where “like-for-like” replacement cannot be achieved, the Thales Australia Management of Change process must be applied.

**ADDITIONAL REQUIREMENTS**

The following additional requirements should be considered in risk assessments:

- The management of change and risk assessment processes should include the input of end-users where appropriate.
- Management of change must be applied when checking and replacing electrical test equipment to ensure it is fit for purpose.

**NOTES AND REFERENCES**

- Modification to electrical circuits must only be done with the approval of the design authority and include updating of relevant manuals and circuit diagrams.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 4.1 (Design, Supply and Installation Requirements for Electrical Installations and Equipment)
E9 Inspection and Maintenance

The electrical components of plant and equipment must be inspected and maintained.

MINIMUM REQUIREMENTS

- Plant and equipment must be inspected and maintained as required by the OEM and relevant Australian and International Standards to ensure integrity and proper containment of live electrical components.
- Electrical tools and equipment must be tested and tagged in accordance with AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment.
- Portable electrical equipment must be visually inspected prior to use.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Faulty equipment must be suitably tagged and quarantined to prevent inadvertent use.
- Specialists should assess the compliance to electrical standards of new tools and equipment.

NOTES AND REFERENCES

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 - Section A.6 (Testing and Tagging Portable Low Voltage Plug-In Equipment)
E10 Hand Tools

Hand tools must meet electrical safety standards.

MINIMUM REQUIREMENTS

- When working on or near live equipment, appropriately insulated hand tools and equipment are to be used.
- Mains powered hand tools must only be used where cordless battery-powered alternatives are unsuitable (for example, the battery powered tools do not have sufficient power) for the work.
- Battery charging stations must be tested and tagged.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Hand tools used on or near live equipment will be designed and maintained for the highest voltage level that may be encountered.
- Tools should be routinely checked for damage to the insulation and replaced as required.
- Battery charging stations are to be set up in a clean environment free of water or high temperatures.

NOTES AND REFERENCES

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 4 (General Electrical Safety Instruction (All Workers))
# E11 Residual Current Devices

Circuits must be protected with residual current devices.

## MINIMUM REQUIREMENTS

- All new facilities must have residual current devices installed at the main switchboard or at the socket outlet.
- Where the facility does not have residual current devices installed, portable residual current devices must be used.
- Portable residual current devices must be used for work on client’s sites.
- RCDs must be tested in accordance with AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment.

## ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

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## NOTES AND REFERENCES

- This control does not apply to naval vessels and other platforms with 110V supplies.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 4 (General Electrical Safety Instruction (All Workers))
## E12 Protection from Water Ingress

Facilities, plant and equipment enclosures must be maintained to prevent uncontrolled ingress of water.

### MINIMUM REQUIREMENTS

- Facilities must provide suitable protection for switchboards and electrical circuits from water ingress.
- Equipment enclosures must comply with the applicable IP rating when installed outdoors or in close proximity to water.
- Inspection and maintenance schedules must include the integrity of critical equipment or components where there is a high risk of water ingress.

### ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment for working in wet or damp conditions:

- Where reasonably practicable, ship staff must remove bilge water prior to electrical work.
- Work planning should prevent water-generating activities, such as water-jetting or concrete-cutting, and electrical work, including welding, occurring at the same time.
- Stop work protocols should be in place for outdoor electrical work where there is potential for rain or lightning.
- Electrical leads should be elevated above surface level if there is potential for surface water.
- De-humidifiers should be used in high humidity conditions.

### NOTES AND REFERENCES

- IP rated enclosures require routine inspections to confirm water ingress has not been compromised.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
E13 Underground and Concealed Electrical Services

Underground and concealed electrical services must be located prior to any excavation or penetration.

MINIMUM REQUIREMENTS

- The location of electrical services is to be confirmed and marked for any excavation greater than 300mm depth.
- Mechanical digging methods must not be used within 300mm of a known service.
- A check for the presence of concealed electrical services must be undertaken for any penetration of the lining of walls, floors or ceilings.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Once located, services should be durably marked or pegged out so that the location will not be obscured by the excavation.

NOTES AND REFERENCES

- Services may be located by scanning, potholing, consulting plans, Dial-Before-You-Dig etc.
- Non-mechanical digging methods include hand-digging or hydrovac extraction.
- Penetration includes drilling, cutting or driving fixings.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 4 (Safe Work Near Overhead and Underground Electric Lines)
E14 Overhead Electrical Services

Where isolation is not reasonably practicable, barriers or physical markers must be used to maintain the clearance distances between mobile plant and overhead electrical services.

MINIMUM REQUIREMENTS

- Minimum safe approach distances and separation distances must be identified through consultation with the electricity service provider and documented in procedures or SWMS.
- The separation distance must allow for the maximum reach of the mobile plant, such as cranes jibs, EWP boom extensions, excavator reach etc.
- Barriers, such as fixed or temporary fencing, must be used to maintain the required separation distance where reasonably practicable.
- Where barriers are not reasonably practicable, physical markers, such as cones or flags, must be used to maintain separation distances.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- “Spotters” must be used as a supplementary control if the separation distances cannot be reliably maintained through barriers.
- Painted markings, for example by spray paint on the ground, may be used only as a supplementary control.
- The service owner may be requested to apply “tiger tails” to the service for insulation and improved visibility.

NOTES AND REFERENCES

- Where reasonably practicable, arrangements must be made with the owner of the overhead service to isolate the service.

For further information, refer to:

- 83392508 Electrical Safety Management System Manual
- 83392508 – Section 4 (Safe Work Near Overhead and Underground Electric Lines)