


Cable Spiking Procedure

Added	Deleted	Revised	Summary of Revision
		26/08/14	Version 2.
		16/12/14	Document id changed to UG-ELX-1033-PR. Approvals, Author, Owner, & Review Date boxes updated.
		22/05/18	Version 3 Updated references and 2 steps in procedure
		04/02/20	Version 4 Update scope and procedure
		02/12/22	Version 5 Updated Owner

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Cable Spiking Procedure

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Cable Spiking Procedure

1.1 Purpose

To outline the requirements of the cable spiking process and cover correct Personal Protective Equipment and maintenance of the equipment

1.2 Scope

Special Safety Precautions:

- a) Ensure the joint pit is correctly excavated to complete cable spiking and that entry and exit points are suitable for the task.
- b) Correct posture when bending and additional care taken when lifting or setting up the spike gun.
- c) Full PPE including full switching suit to be worn during set up, operation and removal of the cable spiking tool.
- d) This procedure includes cable spiking of both LV and HV cables that are abandoned or cannot be positively identified.

Operational Limitations:

- a) Ensure that either a Test or Access Permit is in place prior to spiking the cable
- b) Where a permit is not required, ensure contact with EOC is made prior to any spiking of cables
- c) Cable Spiking to be completed by person with appropriate competencies

1.3 References

UG-ELX-924-PR HV Jointing Pits Procedure
UG-ELX-1088-PR Safe Digging Practice Procedure
OP-ELX-735-PR Access and Test Permit Procedure
UG-ELX-2047-PR Cable Duct Opening Procedure
UG-ELX-1018-PR Working Around Live Cables Procedure
TE-ELX-852-PR HV Cable Identification for Spiking
HS19 Confined Spaces Policy
PJ-ELX-906-FO Civil Works Check Sheet

1.4 Definitions


HV - High Voltage
LV – Low Voltage
EOC – Electricity Operations Centre
VAS - Value Added Service Technician

1.5 Responsibilities and Authorities

To operate the cable spiking tool the following must be completed:

Unit Standard 24152

Cable Spiking Practical Assessment

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1.6 Procedure

- a) Ensure work pack information is available on site with relevant drawings and plans.
- b) Ensure the cable is correctly identified by a Vas Technician to identify cables as per HV cable identification process reference TE-ELX-852-PR, two methods of the three type's listed are required: Physical trace to the point of isolation

Use of Obstruction plans

Signal trace


When working on LV cables and there are multiple cables (LV or HV) present in the work area you must positively identify the circuit before work commences. If positive identification cannot be achieved for the LV cable to be worked on, then the cable spiking process shall be followed.

NOTE: When multiple cable spiking is required the process of identification must be followed prior to each cable spike unless a visual trace can be made to the point of isolation or previous spike and cut

- c) A comprehensive inspection of the spiking tool should be done by a cable joiner who has correct training for this task.
- d) Receive or sign on the permit issued by EOC after confirming the cable to be spiked is isolated and earthed.
- e) Install the spiking tool correctly ensuring the correct shell for the cable type is used and that cable clamp is packed correctly to fit tightly around the cable.
- f) Contact EOC to advise and receive approval for spiking, regardless of type of cable (LV/HV or abandoned cable).
- g) Clear the trench and surrounding area of all personnel, remotely spike cable from a 5m distance away. "Spiking cable" should be shouted before firing.
- h) In case of a misfire contact the control room for safety assurance and repeat the above steps
- i) Keep clear of the worksite for 4-5 minutes before checking with the control centre that no outages or alarms on SCADA have occurred due to spiking.
- j) Receive clearance, release the pressure on the gun and remove the spike gun.
- k) Cut the cable using the correct tool for the task, sabre saw, hydraulic or remote cutter may be used. Ensure other cables and hazards are well protected prior to cutting the cable.
- l) If in the event of an energized cable being spiked – Contact the control centre, immediately clear the worksite making sure it is not entered and contact your manager for further instructions
- m) Complete all required work under the correct permits.
- n) Return and cancel the permit
- o) Update the spiking tool logbook, clean, and maintain the tool for future use.

Minimum Crew size: 2

Can be a combination of cable joiner, trainee or technician

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Equipment list:

Requirement	Description
As required	Spiking tool and shells
As required	Cable cutter and Sabre Saw
As required	Cable jointer and trade tools
As required	Appropriate PPE including switching suit and correct class of gloves
As required	Cable Identification equipment

1.7 Attachments

Not Applicable