

Safety Rules Relating to Work/Testing on Low Voltage Electrical Equipment

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Authorised by: _____,

Gary Warner, Engineering Director on behalf of Powerlink Executive

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This document forms part of the UK Power Networks Integrated Management System and compliance with its requirements is mandatory. Departure from these requirements may only be taken with the written approval of the above authoriser.

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Revision Record

Issue	Date	Next review date	Prepared by	Details
4.0	04/01/2008		R Wills	Previous issue
5.0	04/02/2011	04/02/2014	C Tyler/ J Hunter	Reviewed and rebranded

1.0 Introduction

These safety rules are for the protection of any persons working on or testing LV equipment within UK Power Networks Services Powerlink, except in the Greenwich Generating station where local safety rules apply.

These safety rules apply to all LV equipment capable of being made live by change of isolation, switching or standard operating procedures, they need not apply to normal routine work on SCADA system, pilot cables, lighting circuits, office equipment including computers, portable tools and domestic appliances. Work of this nature shall be carried out by suitably competent persons in accordance with approved safe systems of work.

Where work is carried out on circuits that are live at a dangerous energy level or dangerous potential, i.e. greater than 50V AC or 120V DC whether between conductors or to earth, additional precautions shall be taken.

These safety rules form part of Powerlink's Management System, in which all the requirements for compliance with health and safety legislation can be referenced.

It is the duty of all those concerned to understand the rules governing any work or testing they may have to do and they will be held responsible for knowing and obeying them.

Whenever there is an incident involving the application of these safety rules, the LV licences of all persons involved shall be withdrawn, without prejudice, until investigations have established that each person can continue working safely to the safety rules.

Should any person be in doubt as to the correct interpretation of these rules or as to the correct procedure to follow in order to avoid danger, they must ask their immediate supervisor or the Shift Supply Engineer for instructions.

Procedures have been written covering the methods by which these rules shall be actioned and compliance with those procedures is mandatory.

Defined terms are printed in italic type.

2.0 Definitions (for use with safety rules only)

<i>Authorised/ Approved</i>	Sanctioned by Powerlink in order to satisfy the requirements of any or all of these low voltage safety rules and the <i>equipment</i> to which they refer.
<i>Caution Notice</i>	A notice which can be attached to <i>equipment</i> or its <i>control equipment</i> when <i>dead</i> , to prohibit making such <i>equipment live</i> .
<i>Competent Person</i>	A person who has attained and been formally assessed as achieving a required standard and who is also both physically and mentally capable to be able to avoid danger.
<i>Conductor</i>	Any component or part of the <i>system</i> that is used for transmission of electricity.
<i>Control Equipment</i>	Those devices which provide a means of electrically operating <i>equipment</i> .

Danger Notice	A notice which can be attached to <i>live equipment</i> warning that to approach or to interfere with that <i>equipment</i> is dangerous.
Dead	At or about zero potential and disconnected from any <i>live system</i> .
Direct Instruction	An instruction given by an <i>LV Authorised Person</i> , when the <i>LV Authorised Person</i> is at all times during the course of the <i>isolation and earthing activities</i> in the presence of the person under instruction.
Earth	The conductive mass of the earth whose electric potential at any point is conventionally taken as zero.
Earthing	The act of connecting a <i>conductor</i> to <i>earth</i> .
Equipment	Electrical plant in which <i>conductors</i> are used, or of which they form a part.
Isolation	Disconnection and separation of <i>equipment</i> from every source of electrical energy in such a way that the disconnection and separation are secure.
Isolation and Earthing Activities	Procedures adopted by an <i>LV Authorised Person</i> to enable <i>LV equipment</i> to be made ready for <i>work or testing</i> and for its restoration to service. These procedures include, but are not limited to: • <i>Isolation of LV equipment</i> • Changes of <i>isolation of LV equipment</i> • The restoration of <i>LV equipment</i> • Coupling and uncoupling requirements • Connections/disconnections to <i>earth</i> • Use of <i>Test Instruments</i> • The placing and removal of <i>Caution Notices, Danger Notices and Safety Barriers</i> • The application and removal of <i>Safety Locks</i> • The use of <i>key safes</i>
Key Safe	A lockable labelled and numbered container situated at a location for the purpose of storage of keys to <i>Safety Locks</i> when in use.
Live	Electrically charged.
Live Work	Any engineering task performed on any <i>equipment</i> involving activities on or near accessible <i>live conductors</i> .
Live Work Statement	A safety document signed by an <i>LV Authorised Person</i> and issued with the consent of the <i>LV Authorised Person's</i> line manager confirming that a particular item of <i>equipment</i> is <i>live</i> and that appropriate precautions have been taken to enable <i>live work</i> to be undertaken.
Low Voltage (LV)	A voltage not exceeding 1000V.
LV Acceptor (LV2)	A person licensed in writing by Powerlink as being competent to accept an <i>LV Permit</i> and who is responsible for ensuring that the <i>work or testing</i> detailed on the <i>LV Permit</i> is carried out correctly and safely.