WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Company Directive

STANDARD TECHNIQUE : OS4B

Identification and Proving Dead of Overhead Lines

Policy Summary

This Standard Technique provides method statements for the safe identification and proving dead of Overhead Lines.

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Approved by

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Date: 23/5/03.

Implementation Plan

Introduction

This Standard Technique provides method statements for the safe identification and proving dead of Overhead Lines.

Main Changes

None

Impact of Changes

Not applicable

Implementation Actions

None required

Implementation Timetable

This policy can be implemented with immediate effect

Page Inserted November 2016

Document Revision & Review Table		
Date	**Comments**	**Author**
Nov 2016	• Document reviewed – minor typographical corrections only • These changes have no impact on the application of this existing WPD policy	Paul Woodward
Nov 2013	• Document reviewed, logo updated to include Midlands areas and this review table inserted. • Old Appendix F is deleted and incorporated into this table • These changes have no impact on the application of this existing WPD document	Paul Woodward
Mar 2008	References to ST:OC5A were replaced by references to ST:OS8A. The wording in paragraph 4.2.1 was clarified and the reference to AP8.2.1 of the DSRs was removed from paragraph 4.2.4(ii). These changes have no impact on the application of this WPD policy.	Paul Woodward

1.0 INTRODUCTION

1.1 The hazards associated with the identification and proving Dead of overhead lines are:-

(a) the need to approach potentially Live and/or unearthed conductors:

(b) contact with exposed Live and/or unearthed conductors.

2.0 RISK ASSESSMENT

2.1 There is a risk of a serious or fatal injury from electric shock or burns, if overhead lines are incorrectly identified.

2.2 An additional risk of injury arises when, even if overhead lines have been correctly identified, conductors are not proved Dead in an Approved manner using Approved test equipment.

2.3 A site-specific safety risk assessment in accordance with ST:HS20A shall be carried out at the point of test by all persons who are required to identify and prove overhead lines Dead.

2.4 This risk assessment shall determine the most appropriate means to positively identify the overhead line, the most suitable item of test equipment (see ST:OS8A) to prove the overhead line Dead and the safest means of access to the conductors to make that test.

3.0 GENERIC CONTROL MEASURES

3.1 Only Competent people who have received appropriate training shall be involved in the process of identifying and proving dead overhead lines.

3.2 As a minimum, this process shall be carried out by, or under the Personal Supervision of an appropriately Authorised person.

3.3 The process for the identification and proving Dead of overhead lines is detailed by voltage level in the Method Statements made in section 4 of this Standard Technique.

3.4 Where required, only Approved voltage testing devices shall be used as detailed in ST:OS8A to prove Dead. These devices shall be tested for correct operation both before and after use.

Page revised 28 March 2008

4.0 METHOD STATEMENTS

4.1 Low Voltage Overhead Lines

4.1.1 Low Voltage (LV) overhead lines shall be identified from mains records or schematic diagrams and from pole numbers on site. They shall be treated as Live until proved Dead at or near the point of work.

4.1.2 The identification on site, proving Dead and earthing of LV overhead lines shall only be carried out by, or under the Personal Supervision of a person who holds a current WPD authorisation of LVOH.

4.1.3 Class 0 LV rubber gloves (see ST:HS8B), a suitable coverall and a full-face visor (See POL:HS8) shall be worn when proving Dead and earthing LV conductors.

4.1.4 When Dead working is required, a positive check by the person identified in 4.1.2 above shall be made where a separate street lighting conductor exists, to ensure that the source of control is identified and isolated such that the street lighting conductor will not become Live unexpectedly.

4.1.5 Earthing and bonding of conductors shall be carried out in accordance with Distribution Safety Rule (DSR) 8.4.1 using Approved earthing equipment as detailed in ST:OS2B.

4.2 High Voltage Overhead Lines

4.2.1 Except as allowed for in 4.2.2 below, the identification on site, proving Dead and the application of Circuit Main Earths and Additional Earths to High Voltage (HV) overhead lines shall only be carried out in accordance with DSR 4.3.4. by, or under the Personal Supervision of a person who holds a current WPD authorisation of PTWI, PTWI(a), or SFTI.

4.2.2 Following the issue of a Safety Document on a HV overhead line, Additional Earths may also be erected by, or under the Personal Supervision of, the recipient of the relevant Safety Document in accordance with DSR 4.3.5. provided that the earth to be erected is not more than two spans from an existing, clearly visible Circuit Main Earth or Additional Earth.

4.2.3 **400kV, 275kV, 132kV and 66kV (Design) Overhead Lines**

(i) All supports for overhead lines of 400kV, 275kV, 132kV or 66kV construction shall be identified from the marked combination of letters and numbers and colour identification for each circuit. Identification shall satisfy the requirements of DSR 5.10.2 and in accordance with ST:OC12C. Use shall be made of colour banded and keyed flags and flag brackets.

N.B. Some single circuit 66kV and 132 kV overhead lines, are not marked as stated above but may be marked in a similar manner to 33kV and 11kV lines. In these circumstances additional care shall be taken and identification shall be carried out as in 4.2.4.

Page revised 28 March 2008

(ii) Proving Dead at the point of work or prior to the application of Additional Earths shall not be required if the requirements of DSRs 5.13 and 5.14 are satisfied.

4.2.4 **33kV and 11kV (Design) Overhead Lines**

(i) All supports for 33kV and 11kV overhead lines shall be identified from their circuit/support label. The absence of a label, for whatever reason, shall require reference to adjacent supports to confirm identity. Identification shall satisfy the requirements of DSR 5.10.2 and the circuit shall be proved Dead using an Approved voltage testing device, in accordance with ST:OS8A, at or near the point of work.

(ii) Where Additional Earths are applied along a line in accordance with DSR 5.11.1, then, providing the working parties work along the line applying and removing Additional Earths in turn such that any earth applied remains within two spans and visible from an existing Additional or Circuit Main Earth, so as to maintain the identity and proof of earthing, there shall be no continuing requirement for a Senior Authorised Person to be in attendance to ensure identification and proving Dead.

(iii) If at a new point of work, for whatever reason, a Circuit Main Earth or Additional Earth cannot be seen to be applied to a continuous conductor of the line within two spans, a Senior Authorised Person shall again ensure that the line is identified and proved Dead.

Page revised 28 March 2008

APPENDIX A

SUPERSEDED DOCUMENTATION

This Standard Techniques supersedes ST:OC3B which should now be withdrawn.

APPENDIX B

ASSOCIATED DOCUMENTATION

POL:OS4, ST:OS2B, ST:OC12C, WPD Distribution Safety Rules, ST:OS8A

APPENDIX C

IMPACT ON COMPANY POLICY

This Standard Technique transfers this policy into the OS series of Engineering Business Directives and clarifies the authorisations necessary for persons to hold to enable them to identify, prove dead and earth lines.

APPENDIX D

IMPLEMENTATION OF POLICY

The new requirements for authorisations shall be communicated locally to field staff who work on OH lines.

APPENDIX E

KEY WORDS

Additional Earth, Colour, Flag, Identification, Label, Live, Overhead Line, Prove Dead, Voltage Testing.