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Policy Webinar

October 2021

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- The briefing will be recorded
 - Which will be available following today's session.
- We ask that questions are added in to the chat function or please raise your hand and lower afterwards
- Please keep your mics on mute unless you are speaking
- We also recommend that cameras are turned off while presenting but welcome them being turned on when asking a question.

Meet the Team



David Talbot
Circuits Policy
Manager



Hannah Sharratt
Stakeholder
Engagement &
Regulatory
Manager



Peter Twomey
Planning Policy
Manager



Lottie Wheatcroft
Incentive on
Connections
Engagement
Manager



ENW Policy & Standards have drafted the new Operations Manual

The Key Points

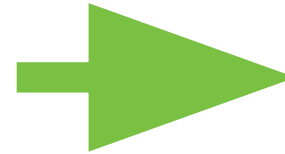
The aim of this presentation is to explain:

- Why CP606 is changing?
- What the new Manual looks like and what is changing?
- How it should be used?



What is CP606?

- **Code of Practice CP606** captures the Company's operational procedures
- New CP606 now on the ENWL website secure area library
- All manuals are being updated into a new modern style and format
- A Workshop was held to discuss suggested changes





Workshop to developed a new Operations Manual

The Key Points

The main outcomes from the workshop:

- Modernise and bring up to date
- Happy with the operational content
- Used DSR definition for consistency
- Consistent terms and references

Why do we need to change ?



To update and modernise the old document :



- We need to communicate safety information more clearly
- We want to improve clarity and consistency of information
- Use Photos and drawings to aide understanding
- Corporate branding
- Improved style and formatting
- Consistency with DSR and references

CP606 - Document Structure/Content



EXISTING

CP 606

NOTE: Format of manual is colour coded to differentiate each section.

These are ENW corporate colours

Section A – Overhead Lines

Section B – Cables

Section C – Control

Section G – General

Section R – Reports

Section S – Switching/Switchgear

NEW

New CP 606

New →

Section 0 Introduction

New →

Section 1 General Requirements

Section A Overhead Lines

Section B Cables

Section C Control

Section G General

Section R Reports

Section S Switching/Switchgear

Further work →

Section T Tools & Equipment

Further work →

Section 3 Index

Amendment Summary



Issue No. Date	Description
48 November 2020	<p>Complete revision and reformatting of CP606. For previous amendment summaries refer to the issue 47 of CP606. New Section 0 & 1. Procedure S10 has been withdrawn and incorporated in the new CP620 for Operational Instructions. All indexes have an issue number and amendment summary. All procedures have been raised to the next issue number. No amendment markers are shown due to the extensive formatting and restructuring.</p> <p>Prepared by: D M Talbot</p> <p>Authorised by: Policy Approval Panel and signed on its behalf by Steve Cox, Engineering and Technical Director</p>

- Main amendment summary details issue No 48 and all previous summary are included in the archived manual.
- All sections will have their own amendment summary which the previous manual didn't include.
- Issue of an existing or new procedure will also have the amendments updated
- CP606 holders will be notified of any updates going forward

Accessing the Secure Area Library



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G81 Policy

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B08 Issue 14.pdf - Adobe Acrobat Reader DC
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NOTE : The meaning of all bold capitalized words used in the body text of this procedure are as the Electricity North West - Distribution Safety Rules, 2013 edition, Section 2, Definitions

A POWRA **Shall** always be carried out prior to the commencement of any activities on site

4 General

When working in the vicinity of cables, there is always the chance that one or more may be damaged. Procedure B09 covers the risks associated with working in the vicinity of damaged cables in general.

It is particularly important that no assumptions are made about cut cables or cables with stripped or cut ends being **Dead**. Any visible conductor **Shall** be treated as **Live**

Issue 14 November 2020 Section B - Underground Cables Operations Manual Page 1 of 7 © Electricity North West 2020

electricity north west WORK ON OR NEAR DAMAGED OR FAULTY LV CABLES Procedure B08

Find
Dead
Previous Next

Export PDF
Adobe Export PDF
Convert PDF Files to Word or Excel Online
Select PDF File
B08 Issue 14.pdf
Convert to
Microsoft Word (*.docx)
Document Language:
English (U.S.)
Convert
Create PDF
Edit PDF
Comment
Fill & Sign
Convert and edit PDFs with Acrobat Pro DC
Start Free Trial

Entered word 'Dead'

Select search function first

Section 0 : Introduction – **READ THIS FIRST !**



The key to understanding the Code of Practice is to read and understand this section first

CONTENTS :

- Who is the Manual for
- What is the Manual for
- Risk Assessment
- Structure of the Manual
- How is the Manual to be Used
- Safety Symbols
- Tools & Equipment
- Electrical Testing
- Reporting Defects
- Scope
- Definitions





The Key Points

- ENW Authorised staff to carry out operational activities
- Details all approved operational procedures
- Procedures in the Manual constitute the Company's general risk assessment and control measures for carrying operational activities.
- Specific hazards at the work location **Shall** be assessed and controlled using Point of Work Risk Assessments (POWRA).
- Safety Symbols covered on the next slide
- Defect form is in CP305 and email report to defectreport@enwl.co.uk.
- All bold capitalized words used in procedures are as per Distribution Safety Rules section 2 : Definitions

Symbols used in the manual (as introduced in section 0)



Hazard Symbols

Symbol	Meaning	Application
	Warning (Black symbol and/or text in a yellow triangle)	To warn of a hazard or danger
	Mandatory (White symbol and/or text in a blue circle)	To instruct a specific action that must be taken
	First Aid (White symbol and/or text in a green square)	To give information about first aid or rescue facilities
	Firefighting (White symbol on red background)	To give information about firefighting
	Advisory	To highlight a good practice

PPE Symbols

	Eye protection shall be worn		Full Face Visor shall be worn
	Safety Helmet shall be worn		Arc Resistant Coveralls shall be worn
	Ear Protection shall be worn		Hi-Visibility Clothing shall be worn
	Respiratory Equipment shall be used		Insulated boots shall be worn
	Insulated gloves shall be worn		Safety harness shall be worn

Symbols comply with the Health and Safety (Safety Signs and Signals) Regulations

Section 1 :General Requirements



Section 1 describes general Safety, Health and Environmental requirements before carrying out operational activities.

CONTENTS :

- Introduction
- General Safety
- Electrical Safety
- Health & Hygiene

Example



- It is important that the correct PPE is worn when carrying out operational activities.
- Mandatory PPE Shall be worn when carrying out other general activities such as visiting sites or undergoing training as detailed in EPD 903, Minimum Personal Protective Equipment Standard.
- Any additional PPE is detailed in section 2 of each operational procedure.





New Sections in all Procedures



1 Scope/Application

This procedure defines the points of isolation for Overhead lines for **Dead** overhead line working on 11kV and 33kV overhead lines. The “points of disconnection of supply” required by the Safety Rules **Shall** comprise at least one of those detailed in this procedure, which **Shall** be regarded as minimum requirements.

2 Safety Information

	CAUTION: Ensure points of isolation clearances comply with this procedure and are maintained through the work.		
	Work shall be carried out in accordance with General Requirements in Section 1. Approved mandatory PPE and work wear shall be in accordance with General Requirements in Section 1. Additional Approved PPE and work wear required to complete this task are specified below.		
	Helmet		
<p>The task covered by this procedure has significant hazards associated with it identified by the symbol and text CAUTION: </p> <p>This procedure details the risk control measures that Shall be applied when carrying out the task. If the risk control measures in this procedure are implemented the risks will be controlled. This procedure also forms the method statement for the task.</p>			

3 Preliminary Operations

Refer to Section 1 of this manual.

- Scope/application of the procedure
- Warning of a possible risk
- Requirement to wear mandatory PPE
- Details any additional PPE
- Ensure section 1 of the manual is complied with.

The Key Points

Change to numbering :

- Due to new 3 sections at the front of each procedure

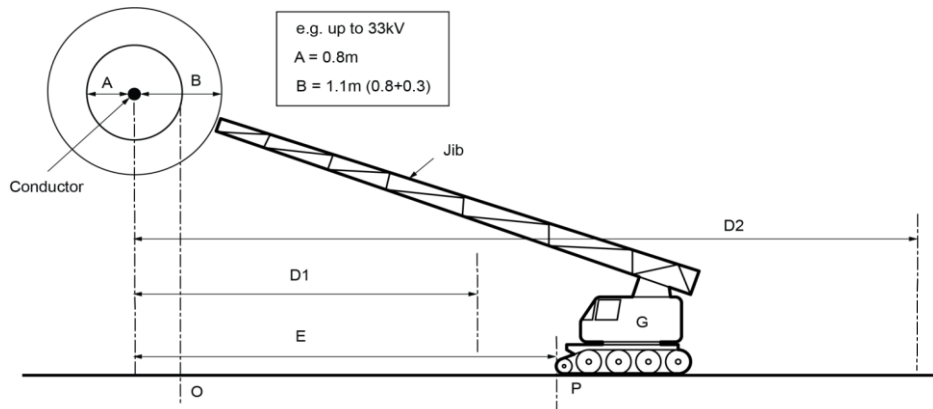
New Style and Format



Note 5 Reference should be made to Tables B1 to B5 in ER G45/1 and to the Safety precautions detailed in Section 9 of the same document.

If the line is made **Dead** it **Shall** be **Isolated** and **Earthed** and a Switching Declaration Certificate issued. This **Shall** be recorded by the **Control Engineer** and its cancellation **Shall** be necessary before the Electricity North West **Apparatus** is re-energised.

- Notes in grey boxes
- All DSR definitions in bold
- Modernised drawings and forms.



I-606.A02-001-11-1

The Key Points

- The previous main content/wording in CP606 hasn't changed
- It will look different due to the style, formatting and the less use of numbered subsections.



No material changes to the procedure contain with the exemption of the changes listed below. Although, the style and formatting will make it look different in presentation.

Changes

- **Procedure A10 has been updated.**
- **Procedure B04 and B11 has been updated**
- **Procedure S15 has been updated.**
- **Procedure S10 – Operational Instruction has been withdrawn and the detail has been transferred to a new CP620 for Operational Instruction.**
- **Each section index has an issue number whereas previously they did not.**

Procedures B04 & B11

Example



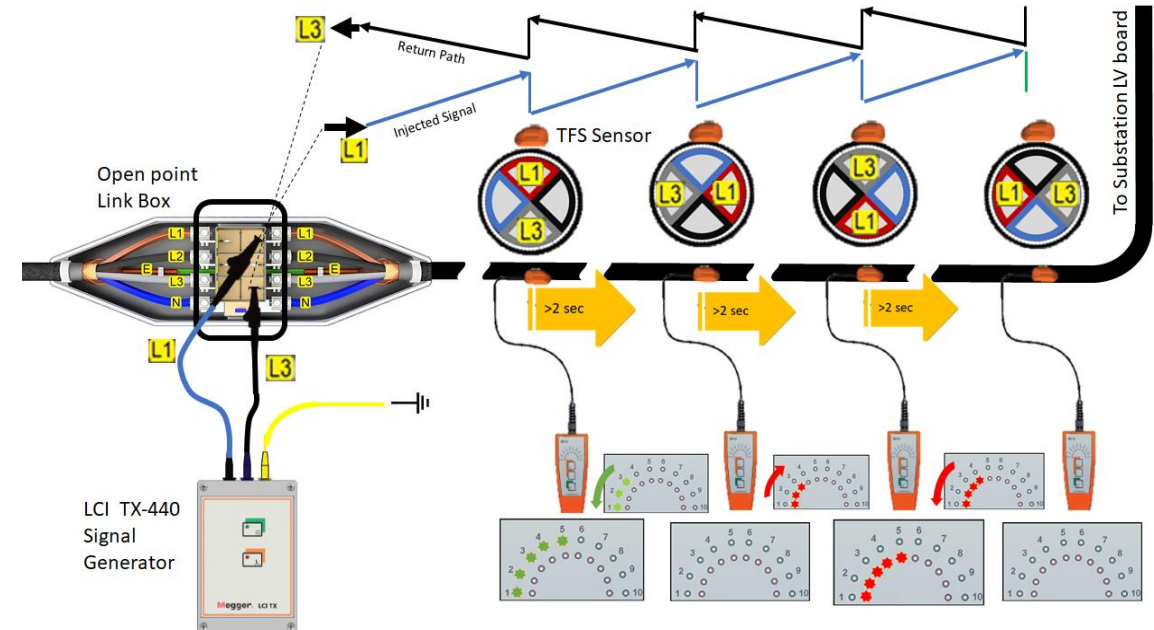
The standard equipment to identify LV cables in the presence of HV cables for many years was the “*Grumbler*”
The manufacturer advised this was to become obsolete



A project was started to identify new alternative methods which could eventually replace the “*Grumbler*”



A suitable device from *Megger* was identified and trials have been completed to check suitability of the CI unit



Procedures B04 & B11



Example



The relevant procedures B04 & B11 in the Operations Manual CP606 was updated to include the Megger CI , including a comprehensive user guide

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APPENDIX A
MEGGER CI USER GUIDE

Procedure
B11

2/ Testing and Setting the Gain on the CI RX Receiver unit

a) The TFS (twisted field sensor) must be connected to the CI RX receiver unit.

b) Switch on the receiver using ON/OFF button (S) - the green power status LED should be illuminated.

c) For 3 seconds, after switching on, the GREEN and RED LEDs on the scale will illuminate to show the gain setting, e.g. if gain is set at value "7" then 7 RED & GREEN LEDs will show. After three seconds the unit will begin to detect any signal from the sensor.

d) Use the increase/decrease gain buttons to set the gain at level 5.

CI RX receiver unit

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September 2021

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APPENDIX A
MEGGER CI USER GUIDE

Procedure
B11

e) Place the sensor over one of the test leads from the TX signal generator. Either the GREEN or RED scale LEDs should illuminate every 2 seconds to coincide with the signal peak.

f) If the gain is set too high, then both GREEN and RED scale LEDs will illuminate together. Reduce the gain using the button on the unit until only GREEN LEDs are showing every 2 seconds.

g) Using the gain buttons, adjust the reading so it shows a peak at around 5 LEDs illuminated.

h) As a double check, place the sensor over the other test lead from the TX signal generator - either the Red or GREEN LEDs should illuminate every 2 seconds (i.e. the opposite colour to the first test).

Note
When the sensor is used on the actual cable to be identified, because of the distance from the signal generator and any armouring or screen on the cable, the effectiveness of the sensor to pick up the signal will be reduced, and the gain may need to be increased to display a satisfactory result.

The TFS sensor should be used with the directional arrow on the unit always pointing away from the signal generator / open point.

Cable from connection of signal generator

Arrow on TFS sensor showing correct direction of travel for axial test / position on cable for radial test

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APPENDIX A
MEGGER CI USER GUIDE

Procedure
B11

3/ Performing Axial Cable Identification

a) Identify move the sensor along the cable and observe the LED scales on the receiver unit.

b) Using example of 4 core waveform, when the sensor is directly above phase L_{1a} the GREEN LED scale should pulse every 2 seconds - it may be necessary to adjust the gain as described in previous section to get a satisfactory reading off around 5 GREEN LEDs illuminated.

c) As the sensor travels along the cable, the cores twist due to the cable "lay" and once the sensor is placed directly over phase L_{2a} the RED LED scale will illuminate only.

d) The test should be carried out over an adequate length of cable to ensure the twisted rotation of the phases can be detected.

e) Once satisfied, switch off the signal generator and repeat test to ensure there is no false positive reading (i.e. no illumination of LEDs on the receiver scale should be seen).

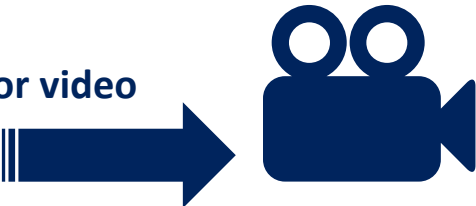
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In addition , an instructional video has been added as an appendix to the procedure to give further guidance – *this is first instance of using videos as part of our policy instructions*

Click icon for video example :



Further Work :

The Megger CI unit is now being assessed to see if it can be used for safely identifying neutral conductors on PILC cables if successful this will introduce a new method to speed up fault restoration times.



What is new?

- New section for Pole Mounted single phase reclosers (TripSaver)
- TripSaver assigned rating added to ratings table

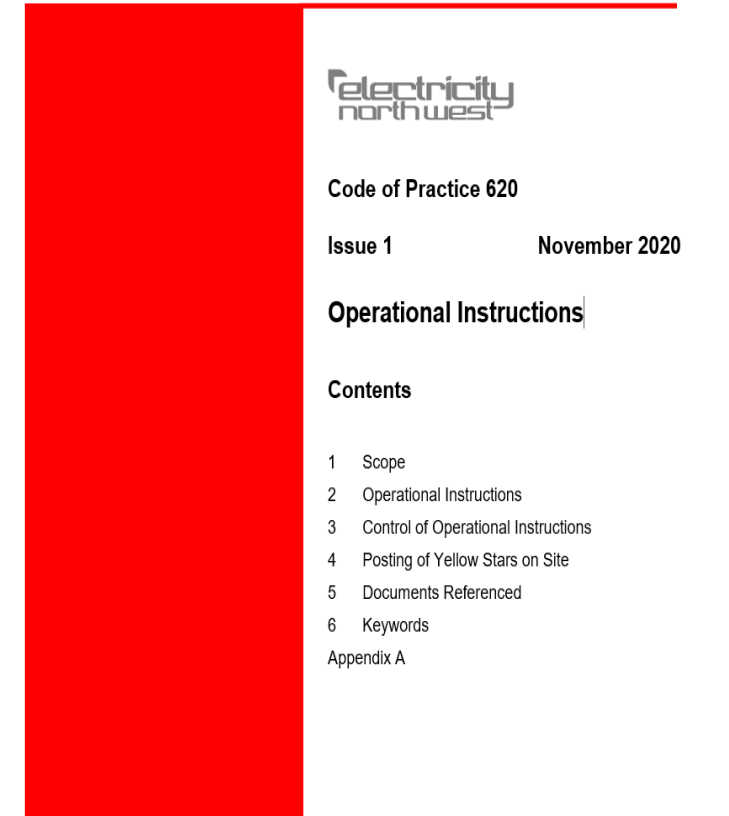
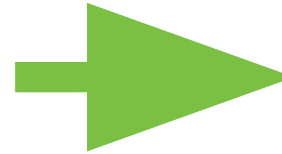


Assigned Rating	Rating with
	TripSaver
Normal current	TripSaver rating up to max of 100A
Load breaking	
Load making	
Fault breaking	6.3kA
Fault making (dependent manual)	14.98 kA Peak
Fault carrying kA for 0.5sec	Not applicable



CP606 – S10 Operational Instructions has been withdrawn

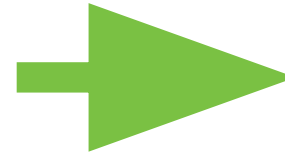
- **Content of S10 transferred into CP620**
- The index of Operational Instructions and all issued Operational Instruction (OI) are held in CP620 on the Reference Library
- An OI issue, amendment or withdrawal will be updated on the library within a target time of 1 day.





Main Changes

- **New document style and format**
- **New Section 0 & 1**
- 3 new sections at the front of each procedure
- Updates to A10, B4, B11 & S15
- New CP620 for OI's and S10 withdrawn from CP606





Any questions?





- Please give us your honest feedback either email [ICE](#) or leave your feedback in the chat



- Presentation slides will be available via our [website](#) shortly.



- Future events, including webinars are available [here](#)



- Don't forget to get in touch with us at ICE@enwl.co.uk



- Thank you for your attendance.