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Temporary Coiling of Overhead Cable and Equipment - Policy

Network Policy

About this document ...

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Content approval

This is the Issue 2 of this document.
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Version History

Version No.	Date	Author	Comments
Issue 2	16-Mar-2023	Sam Small	Section 7 amended to include Maximum Coil Size of no more than 500mm diameter. Section 10 updated audit checks. Section 12 Updated PIA guidance.
Issue 1	08-Nov-2022	Sam Small	New Document

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1 *Openreach Network Policy*

Openreach network policy defines a set of requirements to guide the decisions taken when planning and building a telecommunications network.

These requirements ensure we achieve the required outcomes in terms of meeting the strategic direction, architectural design, financial targets, and quality standards for the respective network.

This document forms a part of the authorised portfolio of Openreach network planning policy documentation. Adherence to these standards and policy is mandatory. Any deviation presents a risk to the required outcomes and will be subject to future compliance checking. Network deployments which do not meet network policy will fail any build audit and ultimately jeopardise our ability to provide service to our customers.

Caution: Policies are liable to change. Therefore, you must ensure that this copy/material is from a controlled source e.g., the Book Store Libraries (where you are able to register for email alerts when updates are made, from within the documents you reference), or the Policy & Build App (whereby you can save an ISIS to your favourites).

2 *Introduction*

This document introduces the Openreach Network policy for the temporary coiling of overhead cable and equipment such as lightweight fibre drop cable and associated pole top apparatus (e.g., CBT, ASN etc). Cable drums, boxes of cable or other packaged cable must not be hung from a pole. It aims to create a platform to regulate and govern the practise, ensuring it is as safe as possible to both employees and members of the public.

Caution: This document is intended for BT owned timber poles only. It does not extend to include Hollow poles and DNO owned poles of any sort.

3 *Scope*

The following information held within this document is for the compliance of Openreach and Partners, extending to PIA CPs.

The reasoning for this ISIS document has been driven by consistent failure of build teams to return to site within a reasonable amount of time to complete work after temporarily coiling cable and equipment to a pole.

Pictorial examples below show how serious the issues have evolved. With an increasing build programme these occurrences are becoming more frequent and so too does the risk to safety.

Fig.1 Multiple loose coils on a Pole.

Fig.2 Low hanging equipment not secured.

Fig.3 Excessive coiling and load.

4 *Network Policy*

The policies stated below must be followed when the temporary storage of coils or equipment on poles is required:

- Safe access to the ladder placement area and climbing steps must be maintained.
- Any cable or fibre equipment temporarily fixed to the pole must be placed in the agreed Lower Envelope of usable Space above the galvanised capping.
- Further information on the Lower Envelope of Space can be found in ISIS: EPT/OHP/B058 - Poles - General Information and Layout Policy and CP08 - Pole Loadings, Fittings & Overhead Cable Clearance.

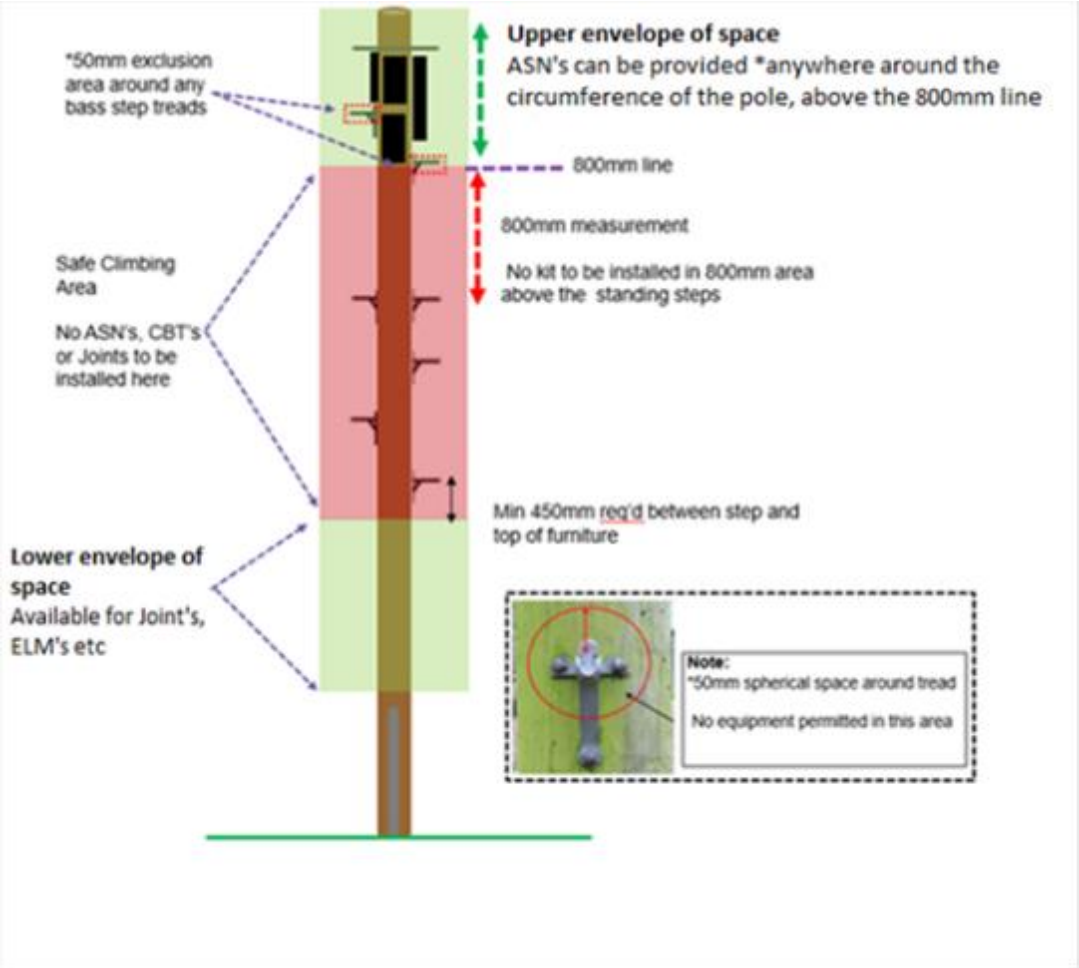

Fig.4 Envelope of space for pole mounted equipment.

- Cable(s) may be formed into a maximum of two coils per pole which must be fitted within the Lower Envelope of Space in a suitable location which does not impede safe ladder placement and safe climbing.
- It is expected that coils are neatly formed, do not exceed 500mm in diameter and secured as per section 5.
- CBT/ASN Equipment can be stored as part of a coil as shown in the following sections below.

> **Warning:** Where a coil has been stored that is not compliant with this policy it will be deemed unsafe and require urgent rectification. The team responsible will be requested to return to site within 24 hours to rectify.

- At its lowest point any temporary coil must not fall beneath 2 metres from ground level. This is to ensure it remains within the Lower envelope of space.
- Coils/CBT/Equipment to be restrained using strap cable fixing method shown in section 5 of this document.
- An Identifying label must be attached to all coils that are temporary stored. (See section 6).

- From the date the temporary coil is installed the build team must return within a maximum of 45 calendar days (dwell time) to complete the build.
- If the 45-day dwell time is exceeded, the equipment must be removed by the originating Build Team/PIA CP.

Fig.5 Temporary Coils fixed in Lower Envelope of Space.

~~5~~ *Cable coil fixing*

All temporary coils, including those where a CBT/ASN Equipment is part of the coil are to be fixed to the pole using the method shown within this section. Any pole fixture must be easily removable for the purpose of pole testing.

Fig.6 Coiling of cable fixed using Straps Cable Fixing 14A and 1A.

- Fit two suitable Straps Cable Fixing (SCF) horizontally around the pole. E.g., SCF 14A (*i/c 073063*).
- Fit two suitable Straps Cable Fixing vertically to restrain the cable coil.
- Fit one suitable Straps Cable Fixing vertically to restrain the equipment.
- All Straps to be left in a manner which no sharp edges are left if cutting excess tails away.
- All loose ends to be taped/secured and labelled with a Cable Marker Label *(i/c 108548).*

Fig.7 Temporary coil restrained via SCF, and loose ends taped/secured. Cable Marker Label and identifying label also used.

Note: This image is for instructional purposes to demonstrate how a coil is to be secured.

Fig.8 CBT restrained to pole in temporary coil.

6 *Labelling of coils*

- All coils are to be correctly labelled using the Cable Marker Label OPT/COP (i/c 108548).
- This is a ‘Tag’ marker label system that is used to identify optical (and copper) cables in external and internal environments, both Underground and Overhead.
- The label is a single, white, UV stable design for internal & external use, overhead & underground - black writing on white label. The installer provides the standard information and circles, or crosses off, the relevant fibre/copper option.
- Fixed via cable ties through the circular punch out holes, this label is intended to be permanent.

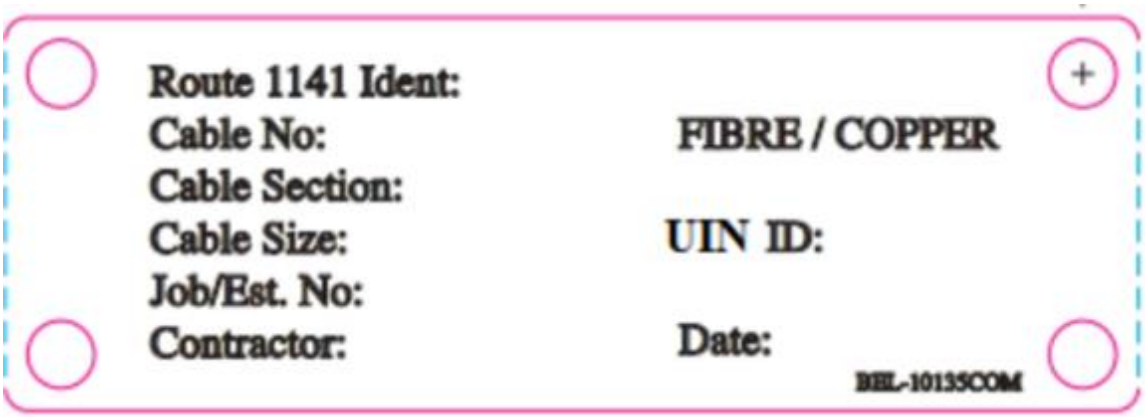

Fig.9 Cable Marker Label OPT/COF.

- Further guidance can be found in ISIS: EPT/COF/D525 - Identification Marking of Optical Fibre Cables.

6.1 Identification of PIA CPs cable and equipment

The above label may not be available to PIA CPs however there is still a need to easily identify the owning PIA CP.

There is certain information which is expected to be included on a label. Such as.

- NoI
- Date
- PIA CP name

In the event there is no label present for PIA CP equipment please use the PIA Investigations form to report any issues or enquiries.

7 *Length and Size of coils*

- The length of the coil will be determined by several factors which may influence the decision to not allow temporary coiling to take place.
  - Can the coil be safely restrained in the Lower Envelope of Space without impeding ladder placement?
  - Can the temporary build be completed within 45 calendar days?
  - Is the pole suitable for temporary fixing of equipment? i.e., not a D pole
- It is expected that coils are neatly formed and kept to the minimum possible size and correctly restrained. No coil is to exceed 500mm in Diameter.

Fig.10 Coil Size.

- Span lengths must be completed up to the closest point of requirement for additional work with coil fixed on closest pole. (e.g., if a pole change is required, the span lengths should be fixed upto the previous ‘good’ pole.)

- Where possible CBTs should be fixed in its Upper Envelope of Space (Permanent) position before temporary coiling its tail. All cables between the CBT and temporary coil must be fixed. See below.

7.1 Vertical Cable runs on wooden Poles

Any cables which run vertically on the pole must be fixed at a minimum of 450mm intervals and must not impede access to the climbing steps. Standard cable cleats tend to get lifted off the pole by safety belts & ladders rubbing against them, which can lead to insecure/loose cables. Therefore, the CP must fix cables using a 16mm aluminium strip (typically available in three length options 80mm, 120mm and 180mm). See Figure 10 below.

Fig.11 – Aluminium Strip.

The CP must secure the strip using 38mm long galvanised bonding nails, along with galvanised steel flat washers (typically with a 6.5mm diameter centre hole).

Protection of cables are solely the responsibility of the CP, but it is recommended to cover cables up to 2.3m minimum from the ground line, by fitting suitable capping.

Where a CP's cable shares the same duct space or run together with Openreach cable, the capping requirement is mandatory. If the existing capping is not large enough to accommodate the extra CP cable, the CP may replace the capping with a larger, Openreach approved capping.

8 *Dwell times and consideration*

- Temporary solutions must not take place if a permanent fix cannot be achieved within 45 calendar days.
- All temporary fixes must be dealt with as short timeframe as possible.
- Dwell times exceeding this timeframe will require to have temporary equipment removed by the originating workgroup. If the cable/equipment is owned by a PIA CP, please see section 12.

9 *Commissioning process*

Note: The commissioning process is Openreach guidance only.

Any THP served via a temporary solution is **NOT** to be commissioned at this stage.

Network must be built to the relevant network policy ISIS which are available from the bookstore and the policy and build app.

Additionally, the following policy documents and other relevant materials referenced in the guidance provide further details on technical specifications:

ISIS: NWK/LNK/C541 - FTTP - Brownfield - Scale Architecture – Policy

ISIS: EPT/ANS/A040 - One Fibre Network – Build Quality Manual for Engineers.

Caution: Any temporary solutioned components **must not** be sent for commissioning.

10 *Regulation and Governance*

All works completed in either a permanent or temporary fixture will be subject to the quality checks and independent audits completed by Openreach people and their contracted suppliers. This will be in accordance with their agreed quality checking and audit strategy. All results will be input into ARENA/FPQ, or an agreed alternative.

If the cable/equipment is owned by a PIA CP, please see section 12.

Already existing in FPQ and ARENA

F0105	All marking and labelling to current standards (Coaching Point). This includes temporary placement of coils or equipment not to exceed 45 calendar days
F0192	Has the plant been correctly fitted within the bottom pole envelope (Critical Defect) o CBTs cannot be mounted in the lower space envelope unless part of a temporary fix not to exceed 45 calendar days. o Temporary coil secured safely top and bottom, no lower than 2 metres at its lowest point. o Temporary plant secured safely (this does not include TM nodes which should be permanently fixed). o Temporary coils are not greater than 500mm diameter. Note: Includes placement of temporary coil/equipment not to exceed 45 calendar days.
P8263	Overhead Pole Capping correctly provided. (Coaching Point)
P8231	Capping provided where required (Critical Defect)
P8261	Overhead cables routed and dressed away from pole climbing step positions (Critical Defect)

F0001	No more than two temporary measure coils to be left in the Lower Envelope of Space (Critical Defect) o No more than two coils of cable allowed on any one pole o If not secured to standard, safely use F0192. o If not labelled use F0105

10.1 PIA Quality

Where a PIA CP has installed their network in a manner that does not meet Openreach engineering standards, please see section 12.

11 *Safety Issues*

Where a coil has not been stored correctly and there is a potential risk to the health and safety of the public, the following action must be taken:

- Site made safe and guarded off.
- Appropriate steps taken to identify owners of the coil (Openreach or PIA CP). If the cable is owned by a PIA CP, then the PIA helpdesk must be contacted on 0800 328 7196 to resolve.
- The team responsible for the coil must return to site and complete the installation of the work or remove the equipment entirely.
- This must be completed within 24 hours of being notified.

In extreme circumstances we advise CP's we may remove and dispose of kit immediately upon identifying if it is unsafe/poses a risk to people.

12 *Physical Infrastructure Access (PIA)*

All CP operatives working on Openreach infrastructure must be accredited for the tasks they do.

Safety - CP are expected to have their own safety management system and processes in place complying with legislation, Health and Safety Executive guidelines (HSG47), New Roads Streetworks Act (NRSWA) etc.

Further guidance please see ISIS: NWK/LNK/C258 - PIA - Physical Infrastructure Access – Policy.

12.1 PIA Investigations

Please use the PIA Investigations form to report any issues or enquiries relating to PIA.

Any reports in relation to:

Poor engineering standards need to be reported on CANDID.

Immediate Safety issues in relation to damage are to be reported to the NRT on 0800 169 5098.

Urgent Signing, Lighting, and Guarding reports are to be reported to the local authorities or Police.

> **Caution:** Any wires below 4.8 metres across a main road are considered dangerous, and we must remove them immediately. If it's a PIA CP wire, please fill out the PIA Investigations form.

We are asking Openreach to use the PIA Investigations Form to report any issues or enquiries relating to PIA such as:

1. Non urgent damage to OR cables or equipment
2. Accident, Incident or near miss
3. SLG (Signing, Lighting or guarding)
4. Unauthorised Use
5. Low wires

12.2 CANDID

Where a PIA CP has installed their network in a manner that does not meet Openreach engineering standards; capture photographic evidence together with the location, date and time and report the issue on CANDID, as a "Substandard work – Network defect".

The bullet points and screenshots below describe how to complete the form on a laptop:

- "Contract (Type of Work)" is PIA.
- "Supplier" is Unknown or selected from the drop down.
- GM Area and Exchange Name are self-explanatory.
- "Openreach Estimate" is Unknown.
- "Supplier reference or estimate number" is the NoI if the CP labelled its equipment/cable, otherwise it is Unknown.
- "Location or Customer Address" is important and must give the Exchange area and DP number, so that the PIA team can identify the CP and the build.
- "Details" must describe the issue. If it is health and safety, then begin with "The following is a H&S issue" to make it obvious to the reader.
- "Upload Photo" is self-explanatory but note that only one photograph can be uploaded, so it must be representative of the issue.

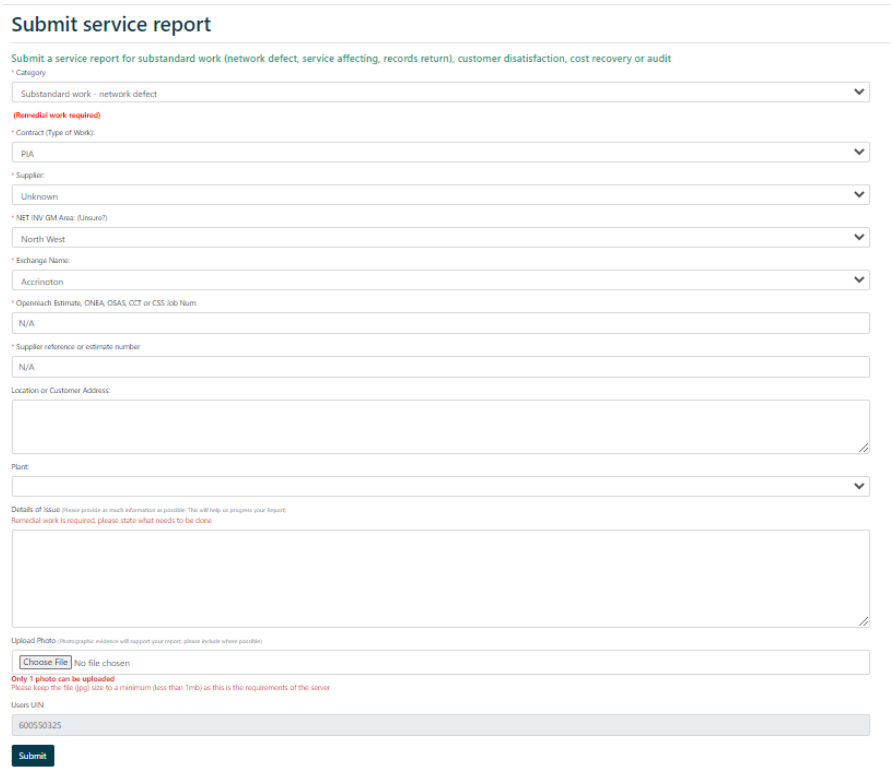

Fig.12 CANDID Service report.

12.3 Damage

If a CP has caused damage to Openreach's infrastructure or network this must be reported the Network Repair Team (NRT) on 0800 169 5098.

Important: Ensure you are on-site when reporting the damage and capture as much evidence as you can as soon as you can.

13 *Stakeholders*

Stakeholders are consulted during the development of new, and updates to existing, Network Policy ISIS, many of whom influence and sign on to policy documents as members of groups and forums.

The following people have been identified as key stakeholders of this document (at version 2) and have agreed to sign-off as Network Policy.

Ongoing stakeholder engagement in relation to incremental ISIS versions is captured within our team's 'Stakeholder Engagement Log' - located within our Stakeholders intranet page.

Name	Title

Stan Edwards	Head of Network Policy, Quality & Accreditation
Ada Hilton	Network Policy Specialist
Kevin Fisher	Network Policy Professional
Mike Poole	CE Operations Director - North of England
Phil Royal	Regional Director, East Anglia & Southeast
Matt Garratt	Senior Manager, Operations, Fibre & HV
Spencer Barratt	Senior Health & Safety Manager, Chief Engineer
Mike Ellis	Senior Manager of RQM's, Network Assessors, Copper/Fibre
Lynsey Gilfillan	Head of Health, Safety and Sustainability, Fibre Network Delivery
Alastair Woods	Regional Fibre Build Director (South)
Darren Gorman	Senior Engineering Programme Manager South
Bob Reader	Overhead Plant Safety Policy & Projects Manager
Roger Causley	Senior Manager, People Safety
Wes Grantham	Fibre & DSL Detailed Solution Design Professional
Anthony Stewart	Desk Engineer Co-ordinator
Paul Elliott	Principal, Passive Products
Darren Wallington	Senior Manager Passive Products
Nicole Wade	Transformation Delivery Manager - Partners
Mike Kennedy	Analytics Professional
Gavin Rae	Principal Client Service Management PIA
Marc Henson	Network Quality, Standards & Accreditation Specialist
Gavin Rowson	Senior Commercial Lawyer Products
Steve Myhill	Network Quality and Standards Specialist
Aidan Fraser	Passives Product Manager

14 *Further Network Policy Guidance*

14.1 Network Policy, Quality & Accreditation Website

The Network Policy, Quality & Accreditation Website is the front door to all things policy, with links to all our policy documentation and guidance.

14.2 Network Policy Briefings & Planning Communications

Network policy briefings provide an interim method to communicate key network policy/planning policy, pending inclusion of the briefing content into the relevant Policy ISIS document.

These are found via the Network Policy Briefings & Planning Communications webpage.

Registration for Network Policy Briefings & Planning Communications ensures that you will be notified once a policy briefing is either published or updated.

To register for notifications, please go to:

Registration for Policy Briefings and Planning Communications

14.3 Policy & Build App.

The Policy and Build app has been launched and is available to all iPhone (automatically uploaded) and Android users who can view this 'How to guide' for assistance when trying to download the app.

It includes essential network policy and build ISIS documents covering engineering topics from the exchange to our customers' premises.

Feedback functionality will allow you to suggest more content by texting the word POLICY to 81192 followed by your suggestion.

14.4 Policy team Workplace Groups

- Workplace - how to join

14.4.1 Network Policy: Workplace Group

From the Network Policy: Workplace Group you can view our recent posts and access our regular videos.

14.4.2 Network Policy Academy: Workplace Group

The Network Policy Academy: Workplace Group provides you with a series of short network policy modules as a visual guide to aid your understanding and test you if you're feeling confident!

14.4.3 Network Myths & Legends: Workplace Group

The Network Myths & Legends: Workplace Group hosts Network Myths & Legends as they are dispelled by Openreach Chief Engineer Andy Whale.

END OF DOCUMENT