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# **Network Rail – Permit to Dig**

## **July 2017**



**Resourcing  
Safely**

# Think Safe, Act Safe and Be Safe



## Our Safety Vision:

- Our vision of “preventing harm to all” is at the centre of our Safety Strategy and is synonymous with our commitment to resourcing and working safely.
- We believe that our vision can be achieved if we all develop a safe mind-set, plan our tasks correctly and actively seek ways to prevent incidents. We also believe that behaving in a safe way will also lead to zero accidents. We have devised a set of rules that underpins our vision and are consistent with our mantra. **Think safe, act safe and be safe!**



Think Safe, Act Safe and Be Safe

The following information Could

**SAVE YOUR LIFE.....**

Read it and understand it, if anything is unclear then

Phone me at the Office on;

**0118 924 1115**

Joe Christopherson – HSQE Manager

**This edition is dedicated to “The permit to dig procedure and avoiding buries services”:**

- Network Rail cable strikes
- Network Rail best practice advice
- Network Rail PowerPoint presentation

**Action required:**

After reading this briefing, you are required to respond, please click **“I have read and understood”** or email [lmillard@resourcing-solutions.com](mailto:lmillard@resourcing-solutions.com) with acknowledgement and any questions/suggestions



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# Think Safe, Act Safe and Be Safe



## We need to stop hitting services .. !

- Over the course of 2016/17 we suffered a significant number of buried service strikes. Fortunately none of these resulted in an injury to staff although all of them caused disruption to the planned work. However, within the rail industry, service strikes in the last few years have resulted in some life changing events for the staff involved. In the first 8 weeks of this year, in IP Signaling alone there have been 8 service strikes – one a week! This cannot continue. The potential for serious injury is obvious and past events prove how serious these events can be.
- Investigation of many of these events suggests that not enough time is being allocated to the preparation of the site and the planning of the work. In addition, staff on site, are not following the basic guidance on the use of scanning equipment.
- Please read the best practice guidance below, and stick by these guides;
- **it will keep you and your colleagues safe!!**

# Think Safe, Act Safe and Be Safe



## Buried Services

- Prior to carrying out any ground disturbance on IP Signaling projects **you MUST, as a minimum**, follow the sequence below to help prevent any service strikes occurring.
- Planning of work involving excavations should be afforded sufficient time to compile a suitable safe system of work to carry out the required work. This should include sufficient time to undertake a visual site survey and a comprehensive CAT and GENNY scan
- To complete the Permit to dig adequately there must be sufficient time available to carry out a pre works site visit to identify, mark up and list all buried services found at that location and produce drawing at least 24 hours prior to start of work.

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## Prior to Going to site

- Carry out a Buried services check. This can take some weeks. All available buried services information must be supplied to contractors in the PCIP (*this is a live document and any updated information should be supplied immediately throughout the life cycle of the project*). This should include, where available, utility drawings and plans, prior survey results and information from the local Maintainer
- The Responsible Person should allocate adequate resources and time to carry out a suitable and sufficient survey.
- Review the Buried Services information.

Always assume that other Buried Services will be present

Record any Buried Services on a 'Location of Buried Services' Summary sheet  
(Appendix E NR/L2/INI/CP1030)

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## When onsite

### The Person in Charge of the Excavation should carry out a Site Survey

#### **Visual inspection**

- As part of the initial survey look at the area surrounding the excavation site Are there any Location cases or other equipment cabinets in the vicinity?
- Is there a signal box, lighting column, marker post or other building nearby – do they have power and water supplies?
- If there is equipment and buildings nearby that are supplied with power or water look to see where the supply comes from.
- Do the supplies cross the excavation area? Are they marked on any maps?
- Have you carried out a scan for them?

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## When onsite

**There are numerous examples of cable strikes on cables supplying equipment adjacent to the excavation site.**

Take the time to check the obvious.

**CAT and GENNY scan plus any additional scans by a competent person.**

- From the incidents that have happened and looking at the Buried Services Process it is highly unlikely that the surveys can be done, and signed off, in the same shift as the work is delivered. In many instances where cables have been struck, the CAT scan (it is rare that GENNY scans are done in these instances) has taken place immediately prior to the dig.
- A comprehensive CAT and GENNY scan will take at least an hour and probably two. This needs to be planned into the time for the work. Too often CAT and GENNY scanning is seen as wasted time or has not been planned properly. Time and money saved in cutting corners is lost many times over in the work lost and additional work needed to repair a damaged cable, not forgetting the potential risk to staff from hitting a live cable.

**Mark up site**

Add information to the 'Location of Buried Services' sheet

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## Prior to commencement of work on site

- **Responsible Person** fills out and signs 'Permit to Dig' Form Part A
  - Checks buried services are detailed in 'Location of Buried Services' sheet
  - Provides site sketch with buried services marked on it
  - If no buried services identified, still fill out Part A and say so
  - Enters name of Person in charge of excavation who will be supervising the work
- **Authorizing Person** (**different to Responsible Person**) reviews Part A of Permit to Dig
  - Checks collated information – buried services report, sketch, location sheet
  - Signs Part B** of the 'Permit to Dig'.

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## Commencement of Work

- Work Group is briefed on the work to be done by the person in charge of excavation
- Person in charge of excavation fills out part C of 'Permit to Dig'
- Work can then commence using safe digging practice

### Safe Digging Practice

- This includes the digging of trial holes to confirm the location of buried services
  - Digging slit trenches
  - Checking the excavation using the CAT and Genny every 150mm
- No CAT/GENNY Scans are to be carried out immediately prior to the work unless sufficient time has been planned for the activity **and** the checking and signing of forms by the Responsible Person and Authorising Person.
- All 'Permits to Dig' to be checked and signed by the Responsible Person and Authorising Person prior to the work commencing.
- **Completed and Signed forms, with site sketches and Location of Buried Services sheet to be available to the Competent Person for briefing to the work group**
- **If a work group is tasked with carrying out a CAT / Genny scan without sufficient time available they are to invoke the WorkSafe Procedure.**

# Think Safe, Act Safe and Be Safe



## Summary

- Buried service strikes can kill or cause life changing injuries
- Make sure you have taken the right precautions before digging
- 1. Has a proper survey, with sufficient time, been carried out?
- 2. Visual inspection
- 3. Cat and Genny Scan
- 4. Site marked up

Have you been briefed on the position of any cables or services

Are they marked up?

Do you know the safe digging practice?

**If the answer to any of the above is NO do not start work**

- Invoke the WorkSafe Procedure
- Better Safe than Sorry

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## Working outside in the sun:

**Overview:** Working outside in the summer months

- **What is the problem?**
- Too much sunlight is harmful to your skin. A tan is a sign that the skin has been damaged. The damage is caused by ultraviolet (UV) rays in sunlight.
- **Who is at risk?**
- If work keeps you outdoors for a long time your skin could be exposed to more sun than is healthy for you. Outdoor workers that could be at risk include farm or construction workers, market gardeners, outdoor activity workers and some public service workers.
- **What are the harmful effects?**
- In the short term, even mild reddening of the skin from sun exposure is a sign of damage. Sunburn can blister the skin and make it peel.
- Longer term problems can arise. Too much sun speeds up ageing of the skin, making it leathery, mottled and wrinkled. The most serious effect is an increased chance of developing skin cancer.

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## Surface Services are also a problem!!

- Surface Services account for around 40% of our service strike incidents however are not managed by any permit to dig therefore not recorded. These should be considered whenever work is being carried out on IP Signalling projects.
- A full site survey is to be carried out
- All services should be recorded within the task brief
- Can the services be segregated, isolated, rerouted etc?
- Carry out a suitable and sufficient Risk assessment
- Adequate briefings
- Adequate supervision
- Insulated tools
- Circuit diagrams provided for recovery of any cables
- Cables to be recovered clearly marked up

## Think Safe, Act Safe and Be Safe

### Keep Yourself safe and follow the Permit to dig Procedures Every Time

- The picture on the right is the result of touching a live cable
- Will you test before touch?
- Will you be checking the permit to dig forms have been completed correctly and enough time allowed for the CAT and Genny scan to be carried out?
- Will you be stepping on any loose cables?



**All the electricity related accidents on the railway are avoidable if you follow the correct procedures**



# “Think Safe, Act Safe and Be Safe”

## Compliance Team

Direct: +44(0)118 924 1639

Email: [compliance@resourcing-solutions.com](mailto:compliance@resourcing-solutions.com)

Find us on



[www.resourcing-solutions.com](http://www.resourcing-solutions.com)

