

## CASE STUDY

### Colas | Utility damage prevention – July 2021

## Introduction

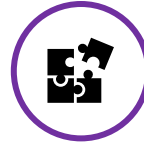
“Utility strikes represent an ever-present threat to human life. Hundreds of people have died across the World as a result of strikes on underground and overhead cables and pipelines. In addition, there are billions (Reducing Damage to Underground Utility Infrastructure during Excavation Costs, benefits, technical advances, case studies, and recommendations Prepared for the Geospatial Information & Technology Association By Geoff Zeiss and Sakura Shinoaki) of pounds of physical and environment damages incurred every year of which hundreds of millions of pounds are within the UK every year. As there are over 12,000 works taking place every day across the UK, it is critical that we learn from near misses and lower consequence strikes to minimise the risk that workers are facing on a daily basis. The utility networks that run over our heads and below our feet extend to over 1.5 million km and are fundamental to daily life. Typical planned maintenance works will themselves cause some level of manageable impact to these networks but any unplanned interventions will have a far greater and longer impact”.(Quote from USAG 2019 Utility Strike damages report).





## Overview

In 2020 we saw a significant increase in the number of service damage incidents which followed on from a small increase in 2019. Using the data on Airsweb AVA we reviewed the findings of the investigations to establish where the failures were occurring within the process. This revealed a number of issues that needed to be addressed and it was decided that this was a topic for the Strategic Improvement Programme (SIP) team that works on SHEQ issues. This team consists of the SHEQ Associate Director and Regional SHEQ Managers along with Operational team members.



## Challenges

- Procedures and processes not followed and they lacked sufficient detail
- Permit system did not add enough control to prevent damage
- CATs were not being used correctly and Gennys were rarely used and this was only established after an incident when it was too late
- Training for CAT and Genny operatives was not effective either due to initial content and/or the fact it wasn't followed up.
- Lack of trial holes to establish service position
- Service plans out of date, not clear or not used correctly
- Limited near miss reporting

**“Although the exact number of service damage incidents that occur each year isn't known seventy people suffer life changing injuries following cable strikes and if we are blindly excavating without knowing what is in the ground we risk adding to that number”**

# Insert Images Here

## Action Taken

**Process reviewed** - all policies, procedures and processes. Created a new set of documents that included a new permit that had hold points within the form. Documentation was then discussed at the SHEQ committee plus the Strategic Improvement Programme team engaging with all stakeholders in the business.

**Pilot scheme** - Documents were then sent out for trial and comment. Following the trial period they were amended and then fully implemented as part of our Management system. JOT form version of permit has been produced and is currently undergoing trials in Leeds.

**Equipment upgrade** - Model of CAT and Genny was changed to a GCAT4+ and Genny 4 plus procured CAT online Manager professional version so that CAT data is uploaded onto the database immediately via the cloud.

**Reporting of incidents** - All Service damage incidents are closed out at the next monthly SHEQ committee and the Manager and Regional Director for the business unit produce a presentation that sets out what happened, why it happened and how they will prevent further instances. A monthly service damage report is produced and then discussed at the monthly SHEQ committee.

**Line Search Before you dig** is being used for utility searches although their coverage in the North of England and South of Scotland is not comprehensive and we are currently sourcing an additional supplier

**Reviewed training providers** to ensure scope of training met our requirements and member of SHEQ team sat in the course to give feedback

**Utility co-ordinators appointed** in key businesses where excavations are a constant activity.

**Video** – we produced our own video that is a visual reminder of the steps to be taken when excavating near underground services.



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home  
safe  
and well

## Results

The new procedures and permits have taken time to fully embed but we are now seeing the results with a Service damage rolling 12 month frequency rate that has been reducing for the past three months and June 2021 had a 71% reduction in underground service strikes compared to the same time last year.



Due to the requirement to present at the Monthly SHEQ committees when they have had a strike the senior management have a greater input and knowledge of the investigation and the actions required.

There has been a 106% increase in Near miss reports by the end of June 2021 compared to the entirety of 2020. Teams are taking a pride in reporting how they have avoided a service damage incident by using the processes that have been introduced.

As Radiodetection On line Manager beds in and is fully utilised we expect to see a further improvement as it will allow us to monitor CAT and Genny usage and identifying additional training/coaching requirements.