

Cable Strike

During signal renewal works a sub-contract operative was breaking out concrete with a hand held breaker in order to extend an existing service chamber. The breaker contacted and damaged a Western Power Distribution Low Voltage (WPD LV) cable. This resulted in a short circuit causing a flash and bang. Incident was reported under RIDDOR as a Dangerous Occurrence. No Injuries were sustained.

Stat plans were available and permit to dig was in place. A cable Avoidance Tool was used and found the presence of three expected cables (WPD LV, street lighting and Telecom) which were marked on the ground. During the dig, the operative found a ducted Telecom cable, a black power cable and a vellowish (as seen opposite) power cable lvina over concrete surrounding the chamber. Assumption was made that these were the 3 expected cables so began to break out the concrete.



During the installation of the original chamber, concrete had been placed around the WPD LV cable. The CAT signal of the yellow (faded orange)Traffic Signal cable masked the presence of the LV cable cast in concrete below and subsequently led to the incident.

Action Required

• Due consideration should be given to the use of Ground Penetrating RADAR during excavation works in high risk areas.

• When locating underground services with CAT and Genny all efforts are to be taken to trace detected cables in order to establish type.

• All Operatives involved in excavation works are to be aware of the means for identifying various services by material type, colour etc. A useful reference document for this is 'Volume 1 NJUG GUIDELINES ON THE POSITIONING AND COLOUR CODING OF UNDERGROUND UTILITIES' APPARATUS Issue 8'

• Safe Systems of Work should take into consideration the possibility of services encased in concrete and the procedures for detection and isolation prior to breaking out.

• Due consideration will be given to Flame Retardant work wear for operatives involved in excavating where electrical cables are anticipated.

SHE Advice:	If you require any advice or guidance on any health and safety aspect associated with your work please do not hesitate to contact:			
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