

No: IGS 191

Infrastructure Group Safety Bulletin

Worting Junction – 2nd April 2009: Trackman suffered burns.



Damage to the SCS clamp and resulting metal debris on the ballast under the conductor rail



Significant burn damage to the SCS clamp and corresponding damage to the running rail.

On the 2nd April at approximately 0100 hrs a team of two trackmen were tasked with placing a Possession Limit Board (PLB) and then applying a Short Circuit Strap (SCS) in support of a planned T3 possession and DC traction current isolation at 50m 77.5 chain on the BML1 line at Worting Junction near Basingstoke, Hampshire.

They had made their way through the access point on to the infrastructure, whilst one trackman was placing the PLB, the other suffered burns and damage to his clothing when the clamp of the SCS came into contact with the live conductor rail which resulted in a 'flashover'. The Isolation had not been granted at the time.

It is believed the injured man was in the process of applying the clamp of SCS to the running rail furthest from the conductor rail at the time of the incident when one of the other clamps made contact with the live conductor rail.

All staff carrying out the application of Short Circuit Straps must be competent in the activity and strictly follow the training and correct procedure for this task as outlined below.

SHORT CIRCUIT STRAP APPLICATION AND REMOVAL

A Guide to fitting and removal of Short Circuit Straps (SCS).

Once permission has been granted to fit short circuit strap(s) the following steps shall be taken:-



1. Clean the running rails with a wire brush at the position where it is intended to fit SCS. The top & underside inside foot of relevant running rails only, need to be cleaned.



2. Prove test lamps on known live source. Apply test lamp set to relevant conductor rail to prove the conductor rail to be strapped is "Dead". Leave in position.

DO NOT 'LAY' THE SCS OUT ACROSS THE 4FT OR UNDER/NEAR THE CONDUCTOR RAIL OR ATTEMPT TO ATTACH THE CLAMPS TO ANY RAIL BEFORE THE ISOLATION HAS BEEN CONFIRMED



3. Attach clamps of SCS to running rails. Clamps will be secured as tightly as possible - this is critical to ensure that straps remain in position to protect workforce. Leave 3rd clamp in 4 ft. Note: If clamps are not fitted securely this may cause them to fall off during re-energisation.



4. When conductor rail has been proved "DEAD" apply short circuit bar to the conductor rail. Leave in position while connecting SCS



5. Wear insulated rubber gauntlets to clean with the wire brush the position on conductor rail where SCS clamp is to be fitted, the top and underside of foot. (Side furthest from relevant running rails)

6. Apply remaining SCS clamp to conductor rail. Pass the clamp under the running rail and conductor rail. Secure clamp as tightly as possible to outer edge of conductor rail foot. This is critical to ensure that straps remain in position to protect workforce.



7. Remove short circuit bar and test lamp set.

8. REMOVAL OF SHORT CIRCUIT STRAPS.

- Only begin activity after you have been instructed to do so.
- Short circuit bar will to be applied to conductor rail where SCS are to be removed and left in position during removal operation.
- Whilst wearing Insulated Gloves remove relevant short circuit straps.
- Only when the removal of SCS is complete should you remove short circuit bar.

Note: Short circuit bar is to be applied to each individual conductor rail where short circuit straps fitted are to be removed.

Failure to follow the correct procedure could cause the individual carrying out these tasks serious or fatal injuries.