Arc Flash Incident

WHAT HAPPENED

While carrying out electrical repairs to a LV panel, an electrician suffered an ‘Arc flash’ from the panel. This resulted in a cut and soreness to their eyes, and minor burns to the face, hand and chest.

Their task was to replace a set of fuses within a cubicle. The tool being used to undo the bolts holding the fuse, came into contact with the metal enclosure. The electrical protection devices were activated and the electrical supply was removed, reducing the extent of the resulting Arc flash.

The IP was wearing normal safety glasses and overalls, but not Arc flash rated PPE.

LEARNING POINTS / ACTIONS TAKEN

Root Causes:
- Faulty isolator switch in the cubicle.

- Panel door not closed and fixed – incorrect assumption that the supply was ‘OFF’ made
.
- Insufficient checks were carried out to prove that the equipment was not ‘LIVE’ – using incorrect methods and voltage detection/proving tool.

- The tool being used to undo the bolts holding the fuse came into contact with the metal enclosure – non insulated tools being used.

Corrective/Preventive Actions:
- All sites to carry out a survey of electrical MCC and equipment to identify any other faulty equipment and ensure that mitigating actions are sufficient until a permanent solution can be carried out.

- All sites to include emergency/rescue plans for Arc flash and electrocution.

- All sites to review the first aid equipment for electrical burns (large areas).



LOCATION:	**CEMENT PLANT**	**ALERT STATUS:**	**Normal**
ACTIVITY:	**MAINTENANCE & HOUSEKEEPING**	**DATE ISSUED:**	**13/12/2019 13:37:06**
SUB ACTIVITY:	**N/A**	**INCIDENT No:**	**01540**