



## Failure of Primary HV Overhead Line Earth

A UK based Network Operator has recently reported a jointer received a mild electric shock while removing lead from a 33kV cable. The faulty section of cable had been cut away and he was working on the side connected to an overhead line that supplied two primary substations. After he received the shock he checked the portable Primary HV earth and found that one of the connections to the conductor clamps had broken. He immediately informed the Permit holder and work was stopped, the SAP and the Control person were notified and the defective earth was replaced and recovered safely allowing work to continue.



Closer inspection of the defective portable Primary HV earth found that the insulation and conductors were damaged under the sprung coil shrouds at another three positions. The earths were included in a formal inspection regime, and their next inspection due date was April 2016.

### Recommendations

Ensure all portable earths are included in a formal periodic inspection regime in line with your own Company policy and the manufacturer guidelines.

Ensure all portable earths are subject to a thorough visual inspection before they are used, checking the integrity and function of all clamps, leads and connections.

Ensure any defective portable earth is not used, immediately withdrawn from service, and reported to your Site Supervisor or Line Manager.

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