



1 SCOPE

This document details the application of SOP 128 issued by the Electricity Association.

2 ISSUE RECORD

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Issue Date	Issue No	Author	Amendment Details
October 2000	1	Esther Stewart	Initial Issue in New Format: 2 Page Document

3 ISSUE AUTHORITY

Author	Owner	Issue Authority
Esther Stewart	Roger Bracey	Roger Bracey Group Head, Standards



4 SOP DETAILS

TYPE: Bowthorpe EMP EGA15 & ESA12 Lightning Arresters

ORIGINATING REC: Southern Electric

DATE: 26/7/93

NO. INSTALLED IN MANWEB: approx. 4000

NO. INSTALLED IN SCOTLAND:

STATUS: Restriction

Failures of 11kV lightning arresters have occurred in other RECs during live line working when the arresters have been energised by live line techniques. The following operational restriction will therefore apply with immediate effect: No live line disconnection/ connection of jumpers associated with 11kV polymeric surge arresters shall take place where such work is carried out at the same pole as the arresters. Live line work may continue at poles remote from the surge arresters but with the possible risk of the line tripping out.

This SOP supersedes SOP 107 which is hereby cancelled.

REASON: In certain circumstances disruptive failure can result when energising circuit due to the effect of ferroresonance.

UPDATE : Live line connection or disconnection of jumpers connected to a 6.6kV or 11kV cable termination fitted with polymeric surge arresters **SHALL NOT** take place where transformers are connected to the cable **unless either**

- a) The transformers are disconnected first by three phase switching (eg. by operation of a local RMU),
or,
- b) The point of connection / disconnection is at least one span away from the surge arrester location.

20.04.99: In addition to the above no live line operation shall be carried out on HV transformer/cable combinations unless one of the following methods is used:

- 1) Use of a portable air break switch : using rubber glove techniques, a new point of isolation can be created by installing a portable air break switch. This will allow three phase switching.
- 2) Use of "Load make and break" tools: If all three phases are switched within 10 seconds the overvoltage will not be present for sufficient time to cause damage. This can be achieved by installing the "load make and break" devices where all three phases are operated in rapid succession well within the recommended 10 seconds.

REMEDIAL ACTION: