

POWELL ELECTRICAL MFG. CO.
SERVICE ADVISORY

SA001

Date: June 3, 1993

To: Users of Powell E2V - Medium Voltage Starters

From: Dennis R. Thonsgard
Manager Powell Apparatus Service Division

Subject: Powercon Micro-rupter Switch Application

Powell Electrical Manufacturing Co. utilized the Powercon Micro-rupter switch in our fixed mounted medium voltage starter design. The product, which is also referred to as the E2V, consists of a freestanding vertical section with a stationary mounted vacuum contactor mounted in the bottom and an interlocked disconnect switch mounted above.

We are experiencing an occasional mis-operation of the Powercon isolation switch. The nature of this mis-operation is safety related and compels us to inform our users of this potential problem.

The problem experienced, is a mis-operation of the switch to open when the switch actuator handle is operated to the open position. The switch has exhibited an occasional tendency to freeze in the closed position, if the switch is not exercised and lubricated for long periods of time.

In following industry standard safety practices, operating personnel should always verify proper switch operation by viewing the open blades through the view window. A mis-operation of the switch may cause a safety hazard if this visual verification is not followed.

An investigation of the incidents, indicates the following reasons for this problem:

1. The lubricant on the blades oxidizes over a period of time due to heat and environment, and increases the opening friction resistance. We have also discovered customers utilizing improper lubricants or improperly adjusting the blade tension. This compounds, if not directly causes, the problem.

2. The operating chain may stretch after multiple operations or may have been improperly adjusted.

These problems were encountered on several units beyond two years of service in a petrochemical plant environment.

The following safety actions should be addressed as soon as possible:

- * Inform all operating and maintenance personnel of the importance of visually verifying the switch operation before opening the access door for maintenance.
- * Verify proper operation of the switch at the first opportunity.
- * Powell will furnish a warning nameplate to be installed on each unit below the view window. This nameplate to read:
"CAUTION: ALWAYS VISUALLY VERIFY THE OPEN OPERATION OF ALL THREE SWITCH BLADES BEFORE OPENING THIS ACCESS DOOR"
- * Perform annual "PREVENTATIVE MAINTENANCE", cleaning and re-lubricating the switch blades with Mobilgrease 28.
- * Contact PASD for "PREVENTATIVE MAINTENANCE" service.

Please contact me if you have any further questions.

Dennis R. Thonsgard