

Part 21 (PAR)

Event # 52041

Rep Org: ABB INC. Supplier: ABB INC.	Notification Date / Time: 06/24/2016 13:20 (EDT) Event Date / Time: 04/26/2016 (EDT) Last Modification: 06/24/2016
Region: 1 City: CORAL SPRINGS County: State: FL	Docket #: Agreement State: Yes License #:
NRC Notified by: DENNIS BATOVSKY HQ Ops Officer: VINCE KLCO Emergency Class: NON EMERGENCY 10 CFR Section: 21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE	Notifications: RANDY MUSSER R2DO ROBERT ORLIKOWSKI R3DO PART 21/50.55 REACTORS EMAIL

PART 21 - DEVIATION FOR CLASS 1E SOLID STATE RELAYS (47H AND 60Q)

The following information was excerpted from a received licensee fax:

On April 26, 2016, ABB confirmed a customer complaint regarding a 60Q relay received with an internal short circuit. The cause was determined to be a manufacturing deviation from specification.

Records show a total of 53 suspect relays were provided to 2 customers (Prairie Island and Tennessee Valley Authority).

Based on the nature of the deviation, any installed relay would have failed upon application of power in the relay. Therefore, the primary concern is that any relay, either in storage or installed with no power applied, may have this defect and will create a system malfunction upon power application.

If you have any questions regarding this notice, please contact the ABB Technical Support at (954) 752-6700.

IE19
NRR



June 24, 2016

Document Control Desk
US Nuclear Regulatory Commission
Washington, DC 20555-001

Subject: 10 C.F.R. Part 21 Notification of Deviation - Solid State Relays.

Dear Sir or Madam:

This letter provides notification of a deviation for Class 1E Solid State Relays (47H and 60Q).

On April 26, 2016, ABB confirmed a customer complaint regarding a 60Q relay received with an internal short circuit between traces (DC control Power Input Terminal 7 and AC Input Terminal 2) on the back-plane module (ABB Part Number 612744-006). The cause was determined to be a manufacturing deviation from specification in the bare Printed Circuit Board (PCB).

Further, the dielectric testing process designed to detect such deviations was likely not carried out properly, leading to the relay being shipped with the deviation. While it is unlikely that additional deviations exist in shipped product, ABB cannot definitively rule out the possibility of others in the population.

Records show a total of 53 suspect relays were provided to 2 customers detailed in the separately attached document provided.

Based on the nature of the deviation – any installed relay would have failed upon application of power to the relay. Therefore, the primary concern is that any relay, either in storage or installed with no power applied, may have this defect and will create a system malfunction upon power application. ABB does not have the capability to perform the evaluation to determine if a defect exists, and therefore in accordance with 10 C.F.R. 21.21(b), we are notifying the purchasers or affected licensees of this determination so that they may evaluate the deviation, pursuant to 10 C.F.R. 21.21(a).


ABB recommends that the affected licensees evaluate their specific application and determine whether the deviation described in this notice affects their design basis. If it is determined that it does, the licensees should contact ABB to determine appropriate corrective action. Any relay that is not currently in use can be returned to ABB for inspection at no charge to the customer.

ABB is conducting the following action:

- ABB issued a corrective action to improve Solid State Relays Hi-potential test process.

If you have any questions regarding this notice, please contact the ABB Technical Support 954-752-6700.

Very truly yours,


Dennis Batovsky
Managing Director



CUSTOMER	ORDER	DATE	STYLE	DESCRIPTION	SERIAL NUMBERS	QTY
PRAIRIE ISLAND NUCLEAR POWER PLANT	DN18434	8/25/2015	412N0175-1E	TYPE 47H CLASS 1E	201517176 201517177	2
TENNESSEE VALLEY AUTHORITY (TVA)	AA1669967	10/23/2015	412J5275-1E	TYPE 60Q CLASS 1E	201517566 201517567 201517568 201517569 201517570 201517571 201517572 201517573	8
			412J5375-1E	TYPE 60Q CLASS 1E	201517574 201517575 201517576 201517577	4
TENNESSEE VALLEY AUTHORITY (TVA)	AA1603664	7/14/2015	412J5275-1E	TYPE 60Q CLASS 1E	201515705 201515706 201515707 201515708 201515709 201515710 201515711 201515712 201515713 201515714	10
			412J5375-1E	TYPE 60Q CLASS 1E	201516124 201516125 201516126 201516127 201516128	5



CUSTOMER	ORDER	DATE	STYLE	DESCRIPTION	SERIAL NUMBERS	QTY
TENNESSEE VALLEY AUTHORITY (TVA)	AA1656434	10/5/2015	412J5275-1E	TYPE 60Q CLASS 1E	201517168 201517169 201517170 201517171 201517172 201517173 201517174 201517175 201517313 201517314 201517315 201517316 201517317 201517318 201517319 201517320	16
			412J5375-1E	TYPE 60Q CLASS 1E	201517321 201517322 201517323 201517324 201517325 201517326 201517327 201517328	8