

TE Connectivity
Energy Division
8000 Purfoy Road
Fuquay-Varina, North Carolina 27526-9349

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

April 14, 2011

NOTICE OF DEVIATION PURSUANT TO 10 CFR 21

Subject: NPKC-7-21A(N) Splice kit with possible compromised jacket seal

The purpose of this letter is to provide the Commission with the prescribed notification as required per and in accordance with 10CFR21.21 of a deviation identified by TE Connectivity of a splice configuration that does not meet the advertised application performance of sealing a cable jacket at an electrical splice. The affected licensees have been made aware of this issue through verbal and electronic communications. The final determination of the failure to comply must be determined by the facility.

(i) Name and address of the individual or individuals informing the Commission.

Wilbert Meadows Nuclear Quality Manager, TE Connectivity

TE Connectivity Energy Division (919)557-8597 Jonathan C. Cornelius Nuclear Product Manager

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(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

The following facilities have been identified as the only recipients of the NPKC-7-21A(N) manufactured. A total of 77 splice kits have been shipped.

Purchase Date	Customer Purchase Order	Plant	Owner/Operator	Qty Shipped
5/6/2004	2283rel00240	Browns Ferry	TVA	1
11/2/2004	10075498	Arkansas One	Entergy Nuclear Operations, Inc.	3
5/27/2005	2283REL00389	Browns Ferry	TVA	1
6/24/2005	2283REL00402	Browns Ferry	TVA	1
6/15/2006	2283REL00454R2	Browns Ferry	` TVA	2
11/16/2006	2283rel00534	Browns Ferry	TVA	. 1
11/6/2007	00402835	Susquehanna	PPL Susquehanna, LLC	1
11/6/2007	00402835	Susquehanna	PPL Susquehanna, LLC	1
7/7/2008	00417564	Susquehanna	PPL Susquehanna, LLC	1
6/17/2010	2283-110492	Watts Bar	TVA	10
11/24/2010	2283-110492	Watts Bar	TVA	17
1/3/2011	2283-110492	Watts Bar	TVA	23
1/3/2011	3532-197080	Watts Bar	TVA	15

IE19

Page 2 of 5

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

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(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

TE Connectivity Energy division has determined that when the Raychem brand splice kit NPKC-7-21A(N) was created, an incorrect breakout boot was selected as part of the kit. As a result, the jacket sealing properties of the splice kit may be compromised when the kit is installed on single insulated conductors that have an outside diameter less than 0.18 inches.

The NPKC-7-21A(N) is a transition splice kit used to splice a seven core cable to seven single insulated conductors. The application label associated with this kit (shown below) indicates that the single insulated conductor OD range is 0.13" – 0.20".

KIT: NPKC-7-21A (N) RPN: 241876-000 REV: XA

USAGE/LABEL: STORAGE LEVEL B/C

NUCLEAR PLANT SPLICE KIT

7/C CONTROL CABLE TRANSITION SPLICE TO SINGLE INSULATED CONDUCTORS CABLE JACKET O.D.: 0.53" - 1.00"

CABLE JACKET O.D.: 0.53" - 1.00"
INSULATED CONDUCTOR O.D.: 0.13" - 0.20"
MAX. BUTT SPLICE CONNECTOR: 1.0" LONG

KIT COMPONENTS:

					DOCUMENT	KEY
ITEM	QTY	U/M	DESCRIPTION	PART NUMBER	NUMBER	REF
1	1.0	EA	WCSF-500-38/13-3N	132396-000	SCD-37001	G00
2	1.0	EΑ	502A812-52/144-N	178358-000	SCD-48023	F00
3	1.θ	EA	INSTALLATION INSTRUCTION	423862-000	PII-57181	
4	1.0	EΑ	PCD-KIT-CONTENTS-LIST	460781-000		
5	1.0	EΑ	302A823-52-0-N	646124-000	SCD-48019	A00
6	7.0	EΑ	WCSF-115-9/3-6N	768840-000	SCD-37001	J00
7	1.0	ĘΑ	WCSF-650-50/17-15N	A40184-000	SCD-37001	K00
8	1.0	EA	403A211-52/144-N	C52912-000	SCD-48031	E00

From the list above, item 5 should be described as 302A834-52-0-N not 302A823-52-0-N. As a result, the jacket sealing properties of the splice kit may be compromised when the kit is installed on single insulated conductors that have an outside diameter less than 0.18 inches. Please note, if each the seven core conductors have an outside diameter no smaller than 0.11 inches, then the seven individual conductor splices are still insulated, sealed and protected and therefore not part of this notification. The only functional attribute at issue is the seal of the cable jacket. If the jacket of the seven conductor cable is not considered part of the Environmental Qualification requirement or is not "qualified", then it may be determined that no corrective action, other than documentation, is necessary.

(v) The date on which the information of such defect or failure to comply was obtained.

This potential failure to comply was determined on April 11, 2011

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

The above facilities have received a total of 77 splice kits.

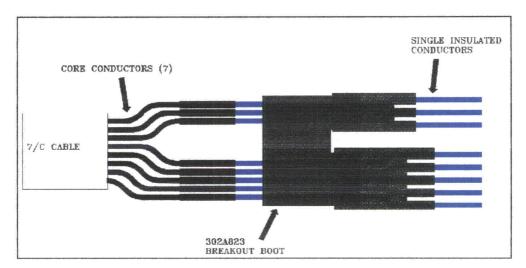
(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

The correct molded part has already been edited into the bill of material for the splice kits that will be manufactured starting April 12, 2011. The final determination of the failure to comply and/or the need for corrective action must be determined by the facility.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

 Determine and locate any uninstalled inventory of NPKC-7-21A(N). If found, notify TE Connectivity Energy Division for replacement. (Telephone 800-327-6996)

2. USING THIS ILLUSTRATION:



Determine if any splices were installed on single insulated conductors that have an outside diameter less than 0.18 inches.

- 2.1. If NOT, then the installed splices are still insulated, sealed and protected and therefore no corrective action or replacement is required.
- 2.2. If YES, Determine whether or not the cable jacket or the cable jacket seal is required for Environmental Qualification.
 - 2.2.1. If YES, the splices should be removed and replaced. Notify TE Connectivity for replacement. (Telephone 800-327-6996)
 - 2.2.2 If NOT, then verify the diameter of the seven core conductors to be greater than 0.11 inch. If they are equal to or greater than 0.11 inches, then the seven individual conductor splices are still insulated, sealed and protected and therefore not part of this notification. If they are less than 0.11 inches, the splices should be removed and replaced. Notify TE Connectivity for replacement. (Telephone 800-327-6996)
- Contact TE Connectivity, Energy Division to acknowledge the receipt of this letter via e-mail qanuclear@te.com and indicate any actions taken or required.
- (ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

Not applicable to this issue.

Please note, NPKC-7-21A(N) splice kits manufactured after April 12, 2011 are not included as part of this notification and may be installed in accordance with the previously existing parameters and use ranges.

If you have any comments or questions regarding this matter, do not hesitate to call.

Very truly yours,

Wilbert Meadows

Nuclear Quality Manager

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