General Information or Other (PAR) Event # 42021

Rep Org: WYLE LABORATORIES		**Notification Date / Time:** 09/27/2005 17:39	(EDT)
Supplier: BUSSMANN		**Event Date / Time:** 09/23/2005	(CDT)
		Last Modification: 09/27/2005	
Region: 1	**Docket #:**		
City: HUNTSVILLE	**Agreement State:** Yes		
County:	**License #:**		
State: AL			
NRC Notified by: BRUCE BATEMAN	**Notifications:**	CHRISTOPHER CAHILL	R1
HQ Ops Officer: BILL GOTT		CHARLIE PAYNE	R2
Emergency Class: NON EMERGENCY		DAVID HILLS	R3
10 CFR Section:		BLAIR SPITZBERG	R4
21.21 UNSPECIFIED PARAGRAPH		TABATABAI (faxed)	NRR

MATERIAL DEFECT REPORT

The licensee provided the following information via facsimile:

"Pursuant to 10 CFR Part 21, this letter notifies the NRC of the existence of a possible defect in Bussmann KWN-R fuses.

"The defect is a poor solder connection of the fuse link assembly to the rejection ferrule. The defect applies potentially to all KWN-R fuses.

"An evaluation was performed and determined that this defect can create a substantial safety hazard or contribute to circumstances that would exceed safety limits as defined in the technical specifications of a license issued pursuant to 10CFR50. Safety-related circuits that include fuses with this defect may not be able to perform their safety-related function as required during a design basis event. Therefore, this potential defect is reportable per 10 CFR Part 21.

"DESCRIPTION OF ANOMALY:
The customer reports that the fuse lost electrical continuity while in service. The customer cut the fuse open and found the fuse element intact and a lack of electrical continuity across the soldered connection of the element to the rejection ferrule of the fuse. According to the customer, the fuse had been in service since 3/31/05 carrying 2 - 3 amperes, and there were no overcurrent events which caused the fuse to open.

"DISPOSITION - COMMENTS - RECOMMENDATIONS:
The customer returned the fuse to Wyle for failure analysis. Wyle forwarded the fuse to the manufacturer for evaluation. The manufacturer found a poor solder connection on the rejection cap. Apparently the cap did not get hot enough to reflow solder during the manufacturing process. The manufacturer stated the issue could be isolated to this particular fuse due to placing it in an incorrect bin, but the issue may extend to other fuses due to a process problem. Based on the evaluation, a potential defect exists in other KWN-R fuses.

IE20

General Information or Other (PAR) Event # 42021

"As a screening test to ensure a good soldered connection, the manufacturer recommends performing a Current Carrying Capacity Test for 30 minutes at 110% of rated current after warm up at 100% of rated current.

"This anomaly impacts qualification of KWN-R fuses. Only KWN-R fuses that pass the 110% Current Carrying Capacity Test are qualified."

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wyle laboratories

September 27, 2005

Document Control Desk
U.S. Nuclear Regulatory Commission (NRC)
Washington, DC 20555

Subject: Potential Part 21 on Bussmann KWN-R

Pursuant to 10 CFR Part 21, this letter notifies the NRC of the existence of a possible defect in Bussmann KWN-R fuses.

The defect is a poor solder connection of the fuse link assembly to the rejection ferrule. Details of the defect are provided in the attached Notice of Anomaly No. 1 Rev. A under Wyle Job No. 50976. The defect applies potentially to all KWN-R fuses.

An evaluation was performed and determined that this defect can create a substantial safety hazard or contribute to circumstances that would exceed safety limits as defined in the technical specifications of a license issued pursuant to 10CFR50. Safety-related circuits that include fuses with this defect may not be able to perform their safety-related function as required during a design basis event. Therefore, this potential defect is reportable per 10 CFR Part 21.

Should you have any questions, feel free to contact me (256) 837-4411, Ext. 271, by facsimile at (256) 837-5216, or email to bruce.bateman@wylelabs.com.

Respectfully,

WYLE LABORATORIES, INC.
Eastern Test, Engineering, & Research

R. Bruce Bateman
Director, Contracts and Purchasing

Attachment: as stated

ORIGINAL

wyle laboratories (Eastern Operations)

NOTICE OF ANOMALY

DATE: September 23, 2005

NOTICE NO: 1 Rev. A P.O. NUMBER: PS04-10320 CONTRACT NO: N/A

CUSTOMER: Entergy Pilgrim WYLE JOB NO: 50976

NOTIFICATION MADE TO: Reilly Schum NOTIFICATION DATE: August 8, 2005

NOTIFICATION MADE BY: Mahesh Dave/Ed Almeida VIA: telephone

CATEGORY: ■SPECIMEN ☐ PROCEDURE ☐ TEST EQUIPMENT DATE OF ANOMALY: August 4, 2005

PART NAME: Bussmann KWN-R-10 Fuse PART NO.: KWN-R-10

I.D. NO.: 50976KWNR10FUSxxx (date code L05) TEST: n/a

SPECIFICATION: Customer P.O. PS04-10320 PARA. NO.: Note to vendor No. 2

REQUIREMENTS:

No cold solder joint is to exist inside the fuse at either end.

DESCRIPTION OF ANOMALY:

The customer reports that the fuse lost electrical continuity while in service. The customer cut the fuse open and found the fuse element intact and a lack of electrical continuity across the soldered connection of the element to the rejection ferrule of the fuse. According to the customer, the fuse had been in service since 3/31/05 carrying 2-3 amperes, and there were no overcurrent events which caused the fuse to open.

DISPOSITION • COMMENTS • RECOMMENDATIONS:

The customer returned the fuse to Wyle for failure analysis. Wyle forwarded the fuse to the manufacturer for evaluation. The manufacturer found a poor solder connection on the rejection cap. Apparently the cap did not get hot enough to reflow solder during the manufacturing process. The manufacturer stated the issue could be isolated to this particular fuse due to placing it in an incorrect bin, but the issue may extend to other fuses due to a process problem. Based on the evaluation, a potential defect exists in other KWN-R fuses.

As a screening test to ensure a good soldered connection, the manufacturer recommends performing a Current-Carrying Capacity Test for 30 minutes at 110% of rated current after warm up at 100% of rated current.

This anomaly impacts qualification of KWN-R fuses. Only KWN-R fuses that pass the 110% Current Carrying Capacity Test are qualified.

Note: This revision changes the disposition, comments, and recommendations in its entirety to include the evaluation results.

RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: ☐ CUSTOMER ■ WYLE

VERIFICATION:

PROJECT ENGINEER: Fred E Rowe 9/23/05

TEST WITNESS: N/A

PROJECT MANAGER: E Reilly Schum 9/23/05

REPRESENTING: N/A

INTERDEPARTMENTAL COORDINATION:

QUALITY ASSURANCE: [signature] 9/23/05

N/A

WH 1066, Revised JUL '94