

Part 21 (PAR)

Event # 47063

Rep Org: QUALTECH NP	Notification Date / Time: 07/15/2011 20:43 (EDT)
Supplier: QUALTECH NP	Event Date / Time: 07/15/2011 (EDT)
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Region: 3	Docket #:
City: CINCINNATI	Agreement State: Yes
County:	License #:
State: OH	
NRC Notified by: KURT MITCHELL	Notifications: TAMARA BLOOMER R3DO
HQ Ops Officer: DONALD NORWOOD	SCOTT FREEMAN R2DO
Emergency Class: NON EMERGENCY	PART 21 GRP by EMAIL
10 CFR Section:	
21.21 UNSPECIFIED PARAGRAPH	

POTENTIAL DEFECT IN QUALTECH NP SAFETY RELATED MOTOR CONTROL CENTER BUCKETS

The following information was received via facsimile from QualTech NP:

"This letter is issued to provide initial notification of a potential defect in QualTech NP safety related MCC buckets, which were commercial grade dedicated at our Cincinnati facility. On June 9, 2011, TVA Watts Bar Unit 2 notified QualTech NP of a failure on a transformer module associated with an indicator light on the MCC bucket. Based on our investigations, QualTech NP has identified quality and performance issues relating to the 480 VAC input (primary side) portion of the subject indicating light. The light in question has shown the potential to flash/arc internally on the primary winding side of the built in transformer and create a substantial fault current. This fault current not only disables the light but can be large enough to trip the upstream circuit breaker, thus disabling all associated safety related circuitry.

"The issues appear to revolve around inconsistent and poor quality fabrication methods employed during manufacturing, primarily with how the wires were wrapped in critical areas of the primary and how they were routed and attached to the termination points.

"The recommended corrective action for existing safety related MCC buckets is to replace the indicator light and transformer module with a newly qualified acceptable substitute. The new indicator light and transformer module will go through a series of dedication inspections and tests to ensure that a similar failure does not occur.

"Based on review of our records, Tennessee Valley Authority is the only customer to have these defective modules."

IE19
NRR

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*** UPDATE ON 8/05/11 AT 1131 EDT TO HUFFMAN VIA FAX FROM QUALTECH NP ***

"QualTech NP conducted failure analyses to determine the root cause. Based on the results of our investigations, QualTech NP has determined that this failure represents a defect in a basic component as defined by 10CFR21.

"The failure analyses concluded that all of the failure modes encountered were due to manufacturing defects associated with the soldering and handling of the wire strands in the vicinity of the line terminals.

"QualTech NP has established a corrective action plan to replace all of these components, known to be installed in safety-related applications. We are currently in the process of evaluating a suitable replacement.

"Based on review of our records, Tennessee Valley Authority is the only customer to have these defective modules. We have been in close communications with TVA on this issue.

"The specific component is Model Number 9001KP5R31, manufactured by Square D."

R2DO (Desai) and the Part 21 Group notified.

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August 3, 2011

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

This letter is issued to provide a follow-up to our initial notification (see attached notification letter dated July 15, 2011) of a potential defect in QualTech NP safety related MCC buckets, which were commercial grade dedicated at our Cincinnati facility. On June 9, 2011 TVA Watts Bar Unit 2 notified QualTech NP of a failure on a transformer module associated with an indicator light on the MCC bucket. Based on our investigations, QualTech NP has identified quality and performance issues relating to the 480 VAC input (primary side) portion of the subject indicating light. The light in question has shown the potential to flash/arc internally on the primary winding side of the built in transformer and create a substantial fault current. This fault current not only disables the light but can be of sufficient magnitude to trip the upstream circuit breaker, thus disabling all associated safety related circuitry.

The specific component is Model Number 9001KP5R31, manufactured by Square D.

QualTech NP conducted failure analyses to determine the root cause. Based on the results of our investigations, QualTech NP has determined that this failure represents a defect in a basic component as defined by 10CFR21.

The failure analyses concluded that all of the failure modes encountered were due to manufacturing defects associated with the soldering and handling of the wire strands in the vicinity of the line terminals.

QualTech NP has established a corrective action plan to replace all of these components, known to be installed in safety-related applications. We are currently in the process of evaluating a suitable replacement.

Based on review of our records, Tennessee Valley Authority is the only customer to have these defective modules. We have been in close communications with TVA on this issue.

Additional details may be provided if required. Please contact Tim Franchuk at 513-528-7900 ext. 176 (office), 803-422-2927 (cell) or via email tfranchuk@curtisswright.com for any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kurt Mitchell', with a stylized flourish at the end.

Kurt Mitchell
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