



SOLIDSTATE CONTROLS

Quality Assurance

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July 27, 2018

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

Attention: Document Control Desk
Subject: Notification of Potential Defect - 10CFR Part 21
Product: Potential Defect in AC Voltage Sense Board, Part Numbers 80-9210842-90
and 80-9210843-90

To whom it may concern:

AMETEK Solidstate Controls is submitting the following Report of a Potential Defect in accordance with the requirements of 10CFR Part 21.

Please contact me if you require any further information.

Sincerely,

Ethan Salsbury
Quality Manager

COMPONENT DESCRIPTION:

277VAC Voltage Sense Board

PROBLEM YOU COULD SEE:

In May of 2018, AMETEK Solidstate Controls (SCI) experienced failures during preventative maintenance with the 80-210833-90 AC Voltage Sense board during the startup of a unit. While the failures were experienced on commercial equipment, a version of the AC Voltage Sense printed circuit board is used in safety-related equipment as well.

CAUSE:

The failure of the AC Voltage Sense Boards is caused by the opening of the 100 OHM 2W R7 metal oxide resistor, AMETEK SCI part number 03-804103-00, due to insufficient peak power withstand capability for the application. In all instances of failures experienced, the peak inrush power dissipation during startup caused the 2W metal oxide resistor to open. Failures have been limited to the metal oxide resistor.

EFFECT ON SYSTEM PERFORMANCE:

If the 100 OHM, 2W metal oxide resistor in the R7 position (PN: 03-804103-00) of the AC Voltage Sense board experiences peak power above its rating and opens, the AC Voltage Sense board may fail. This failure could cause a false low AC voltage alarm and an inoperable high AC voltage alarm condition. During steady state operation, the resistor will not be exposed to power dissipation significant enough to impact the resistor.

This potential defect and 10CFR21 notification applies to SCI safety-related 277VAC version of the AC Voltage Sense printed circuit board:

- 80-9210842-90 - PCB ASSY, VLT SENSE 277VAC,1PH

ACTION RECOMMENDED:

The R7 metal oxide resistor is being replaced in the 80-9210842-90 version of the AC voltage sense printed circuit board with a wire-wound resistor (PN: 03-804103-10). The AC Voltage Sense Board will be revised to revision level "I". AMETEK recommends replacing any prior revisions of the 277VAC AC Voltage Sense boards at the earliest convenience.

AMETEK SOLIDSTATE CONTROLS CORRECTIVE ACTION:

If you wish to replace the 277 VAC AC Voltage Sense Board with the latest revision, AMETEK Solidstate Controls will work with you to arrange replacements. Please contact Mr. Mark Shreve of our Client Services group at 1-800-222-9079 or 1-614-846-7500 ext. 6332. mark.shreve@AMETEK.com

AFFECTED CUSTOMERS

The table below identifies all AMETEK Solidstate Controls customers who have purchased the printed circuit board 80-9210842-90 since 2008. Any purchases prior to 2008 should have been replaced according to the recommended preventative maintenance schedule and, therefore are not applicable to this 10CFR21 notification.

CUSTOMER	AMETEK JOB NUMBER	DATE
CHINA NUCLEAR	B98582	2009
EDISON MATERIAL SUPPLY	46000682	2013
	B98189	2009
	B99404	2009
ENERGY NORTHWEST <i>50-397</i>	46000074	2011
	B102118	2010
	B102185	2010
	B104565	2011
	B77611	2010
JADE DRAGON TRADING	B100781	2010
	B100794	2010
	B100798	2010
	B100800	2010
	B100802	2010
	B100882	2010
	B100883	2010
	B100884	2010
	B100885	2010
	B100886	2010
	B100900	2010
	B103185	2011
	KOREA HYDRO & NUCLEAR POWER COMPANY LIMITED <i>52-046</i>	46000861
46000861		2014
46001055		2014
46001657		2016
46001764		2016
46001869		2016
KRSKO	96000093	2016
EXELON BUSINESS SERVICES - BRAIDWOOD WAREHOUSE <i>50-456</i> <i>50-457</i>	46000426	2012
	46001139	2014
EXELON BUSINESS SERVICES - BRAIDWOOD/ BYRON GENERATING STATION <i>50-454, 50-455</i>	C103552	2011
GEORGIA POWER COMPANY - VOGTLE 1 & 2 <i>50-424, 50-425</i>	46001547	2015
	46001641	2016
SHENZHEN CHANCE NEW ENERGY SCIENTIFIC INSTRUMENT CO	B96706	2008