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Robert George
Director of Quality

November 1, 2013

U.S. Nuclear Regulatory Commission
Washington, DC 20555-001

ATTN: DOCUMENT CONTROL DESK

SUBJECT: REPLY TO A NOTICE OF VIOLATION
NUCLEAR REGULATORY COMMISSION INSPECTION REPORT
NO. 99901427/2013-201 AND NOTICE OF VIOLATION AND NOTICE OF NONCONFORMANCE

Re: Docket No.: 99901427

To Whom It May Concern,

Ametek Solidstate Controls' reply to the Notice of Nonconformance is enclosed as Attachment 1, including the deviations identified during the USNRC inspection of Ametek Solidstate Controls that took place August 19-23, 2013, and the responses to those deviations.

Regards,

AMETEK SOLIDSTATE CONTROLS

Robert George
Director of Quality

Cc: Chief, Electrical Vendor Inspection Branch
Division of Construction Inspection and Operational Programs
Office of New Reactors

ATTACHMENT 1

Reply to Notice of Nonconformance NRC NO. 99901427/2013-201.

Violation 99901427/2013-201-01:

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 21.21, "Notification of failure to comply or existence of a defect and its evaluation," paragraph 21.21(a), states that, "Each individual, corporation, partnership, dedicating entity, or other entity subject to the regulations in this part shall adopt appropriate procedures to evaluate deviations and failures to comply to identify defects and failures to comply associated with substantial safety hazards as soon as practicable, and, except as provided in paragraph (a)(2) of this section, in all cases within 60 days of discovery, in order to identify a reportable defect or failure to comply that could create a substantial safety hazard, were it to remain uncorrected."

Ametek's procedure 01-090145, "Failure Investigation/Part 21 Reporting," Section 2.0, states, in part, that "Evaluations shall be performed as soon as practicable, and in all cases within sixty (60) days of discovery, in order to identify a reportable defect of failure to comply that could create a substantial safety hazard."

Contrary to the above, as of August 23, 2013, Ametek failed to report a defect associated with substantial safety hazards as soon as practicable within 60 days of discovery or file an interim report. Specifically, Ametek was notified of a deviation with Tyco/Potter & Brumfield relays on October 8, 2008. Ametek assessed the deviation and concluded that the issue was a substantial safety hazard; however, Ametek did not notify the NRC, effected licensees, and customers until 110 days later on January 26, 2009, to replace all effected Tyco/Potter & Brumfield relays.

Ametek's response to Violation 99901427/2013-201-01:

Ametek was first notified by Beaver Valley on 10/02/08 (not 10/8/08) through an informal e-mail that an issue with Tyco P&B relays, date codes unknown, was suspected. At the time it was unclear to both the utility personnel and Ametek if there was a problem with the relay or an issue created by an unknown source. The e-mail was asking to discuss the event with us to attempt to help determine the cause of the failures. At the time it was unknown if it was a component problem, a system problem, a misapplication, or something else altogether. Meanwhile, the suspect relay specimens were being evaluated first by Exelon Power Labs (report issued 12/11/08) then soon after in late January, 2009, by Tyco Electronics (report issued 2/10/09) as part of the investigation. When the laboratory examinations were completed, determining that contact oxidation due to undetermined environmental conditions was the probable cause, a 10CFR part 21 report was issued on January 26, 2009.

It was an oversight by Ametek's Quality Director, to not provide an interim report to the NRC while the laboratory examinations were underway. This oversight was in violation of paragraph 2.0.5 of Ametek Part 21, Procedure 01-090145.

Ametek's Corrective Action: It was an oversight that an interim report at the 60 day mark was not issued. As a result of this violation, a checklist has been created to remind administrators to reference the internal 10CFR, Part 21 procedure for reporting information and guidance.

Violation 99901427/201322013-201-02

Ametek failed to use a suitable testing program to verify the adequacy of the design of multiple battery chargers and inverters. Specifically, Ametek did not identify or test surge withstand capability as a critical characteristic for two battery chargers, which required surge protection capability per the customer specifications. Ametek also did not verify or validate a critical characteristic of synchronization testing which was outside of the acceptance criteria in eight out of nine battery chargers/inverters.

Ametek's response to Violation 99901427/201322013-201-02

While the requirements of meeting the surge withstand testing was in the PO, it was not required under the purchaser's test requirement section of the specification. IEEE-650 only makes recommendations of items to be tested based on known standards.

Ametek's designs all include circuitry to meet the surge withstand requirements in all equipment we provide for nuclear facilities. Ametek has tested this on various units and has documentation available to show that the test has been performed both in an operating facility and by an independent lab. Objective evidence of the tests being performed is available for similar equipment, but not directly to the order on question. While it is listed as a design parameter, it is not a specific requirement. The specification lists many parameters of equipment operation but does not require testing of all those parameters.

Ametek's Corrective Action: Ametek engineers will provide a list of critical parameters to be tested and limits identified in future test procedures.

Violation 99901427/201322013-201-03

Ametek failed to provide adequate oversight of their suppliers through procurement documents, audits, and records to ensure that safety-related services comply with all aspects of its quality assurance program. Specifically, Ametek issued a purchase order to Qualtech to perform seismic and environmental testing on dedicated equipment without conducting an audit of Qualtech's "10 CFR 50, Appendix B" program. As a result, equipment was shipped to Ametek's customer without having sufficient evidence to conclude that Qualtech was able to perform 10 CFR Part 50 Appendix B seismic and environmental testing on uninterruptable power supply (UPS) systems.
Ametek also issued a purchase order for fabrication of safety-related 1E lead acid batteries from C&D Technologies without completing an audit of C&D's10 CFR 50 Appendix B program. Corrective actions relating to C&D's measuring and test equipment program resulting from the audit were not completed before the batteries were shipped to Ametek's customer. As a result, equipment that was not calibrated may have been used during the fabrication and testing of the safety-related 1 E lead acid batteries supplied from C&D Technologies.

Ametek's response to Violation 99901427/201322013-201-03

Ametek's Nuclear Sales Manager issued purchase orders for QualTech testing services and C&D batteries prior to their inclusion on the Ametek Approved Suppliers List. This occurred due to the long lead times required for both the safety related batteries and for qualification test time availability. The orders needed to be placed as soon as possible to get our place in the schedule. Both audits were scheduled by QA and performed in advance of the testing services being rendered and the battery order being completed.

Ametek's Corrective Action: The individual placing the battery and testing services orders in advance of the qualification audits has retired. The new Sales Manager has been advised of the requirements and the potential consequences of not meeting them.

Violation 99901427/201322013-201-04

Ametek's corrective action program failed to assure that conditions adverse to quality are promptly identified and corrected. Specifically, Ametek's Report Number 316, dated April 11, 2011, identified that all cabinets did not have a drip shield put in place during heat run testing. Report Number 316 identified that work instructions need to be amended to ensure that heat run testing would be performed with temporary sides and a drip shield installed to ensure that adequate internal temperatures in the cabinet would be reached. As of August 23, 2013, Ametek's heat run testing results quality is indeterminate because the work instructions still lack procedural guidance to ensure that all heat run tests are performed with temporary sides and a drip shield installed and there was no documented evidence of past test setups to ensure that the tests were adequately performed.

Also, as of August 23, 2013, a 2012 internal audit finding report identified multiple examples of failures to incorporate technical requirements or pass down Part 21 requirements in purchase orders (PO) did not have corrective actions implemented as evident by 20 out of 25 POs in 2013 with the same outstanding issue after the corrective action was supposedly completed.

Ametek's Corrective Action: All equipment test procedures (X6) have been revised to include the statement that, with regard to factory final acceptance and burn-in testing, "Back and side panels must be on for heatrun."