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20th April 2015

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-001

Subject: Reply to a Notice of Violation 99900227/2015-201-01

Ref: Docket No.: 99900227 Report Number: 2015-201

Dear Sir/Madam

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at General Cable's facility in Willimantic, CT on February 2, 2015, through February 06, 2015, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the response to the violation is stated below:

1) Reason For The Violation:

Contrary to Title 10 of the Code of Federal Regulations (10 CFR) 21.21, as of February 06, 2015, General Cable had failed to adequately evaluate a deviation identified through a Nuclear Industry Assessment Committee audit that hot creep, which is listed as a critical characteristic in qualification test document EP-XII-5, "Low voltage nuclear Ultrol Class 1E and non-Class 1E cables," was not tested as per Insulated Cable Engineers Association (ICEA) T-27-581, "Test method for measurement of hot creep of polymeric insulations," in six purchase orders.

Specifically, as stated per EP-XII-5, "verification of the cable's hot creep (both elongation and set) will ensure that the item was crosslinked in the manufacturing process and the cable will last its qualified life." However, General Cable's evaluation that a solder iron test, which is a simple go, no-go test, would be adequate to meet the testing requirements as stated by the ICEA standard is not sufficient to verify the critical characteristic of quantitatively measuring the elongation and set for crosslinking and qualified life purposes.

2) Corrective Steps That Have Been Taken:

As noted, this issue was originally identified during a NIAC inspection in 2010. The inspection identified 7 orders from 2007 that had used the solder iron test to confirm the cables were cross linked. It was established that the company leading the inspection had received one of the cables in question. As a result, General Cable worked closely with them to secure and test a cable sample. The test results showed the cable fully met the hot creep requirements of ICEA T-27-581. Subsequently, General Cable formally reported the results and the response was accepted by NIAC.

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Additionally, General Cable had already recognized the need to implement a hot creep test per ICEA T-27-581 for all nuclear orders and had taken this step in 2007.

It should be noted that this product range is no longer manufactured.

3) Corrective Steps That Will Be Taken:


- a) General Cable will contact the remaining 6 customers and request samples of the cables in question for test.
- b) The samples will be subject to hot creep test per ICEA T-27-581 and the results used to confirm hot creep performance meets specified requirements. In the event that samples are not available, General Cable will perform a technical analysis to show that the product was sufficiently crosslinked to satisfy the ICEA hot creep requirement.
- c) General Cable will issue a formal report of findings.

4) Date When Full Compliance Will Be Achieved:

The target date for full compliance is 26th June 2015, provided GCC receives these samples. If samples are not received then our target date will be 15th August 2015..

Please let me know if you require any further clarification.

Yours faithfully,



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cc. Chief, Electrical Vendor Inspection Branch, Division of Construction Inspection and Operational Programs, Office of New Reactors