



April 3, 2018

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

Subject: NextEra Energy – Integrated Supply Chain – Dedicating Entity
West Palm Beach, Florida
Part 21 Notification – General Electric CR120BD Relay

In accordance with 10 CFR 21.21(d)(3)(ii), NextEra Energy is providing the required written notification of the identification of a defect in General Electric (GE) Type CR120BD Relay. This information was initially reported to the NRC Operations Center on March 15, 2018 (i.e., Event Number 53262). The enclosure to this letter provides the information required by 10 CFR 21.21(d)(4).

This document contains no regulatory commitments.

Sincerely,

A handwritten signature in black ink, appearing to read "David J. Peterson", is written over the typed name.

David Peterson
Director – Integrated Supply Chain – Technical Services

AAL

Enclosure: 30-Day Notification Per 10 CFR 21.21(d)(3)(ii)

IE19
NRR

30 Day Notification per 10 CFR 21.21(d)(3)(ii)

- i. Name and address of the individual or individuals informing the Commission.

*David Peterson
Director – Integrated Supply Chain – Technical Services
NextEra Energy (NEE)
2456 Port West Blvd
West Palm Beach, Florida 33407*

- ii. Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Basic Component:

General Electrical (GE) Type CR120BD Relay (125VDC relay with 6 normally open and 2 normally closed contacts) was dedicated for safety related application at Seabrook Station

- iii. Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Facility (Dedicating Entity):

*NextEra Energy (NEE) Integrated Supply Chain – Technical Services (ISC-TS)
Corporate Procurement Engineering & Dedication (CPED) Facility
West Palm Beach, Florida 33407*

NEE ISC-TS procured GE Part Number CR120BD06141 relays commercial grade and performed commercial grade dedication (CGD) of the items for use in safety related applications at Seabrook Station.

- iv. Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

The commercial grade relays were provided by commercial supplier (General Supply & Services Inc. – PO 02350829) from Parts Super Center (PSC) as GE Part Number CR120BD06141.

The following table provides the purchase order numbers, quantities, and date received associated with the affected relays.

| <i>Purchase Order</i> | <i>Quantity</i> | <i>Date Received</i> |
|-----------------------|-----------------|---------------------------|
| <i>0235089</i> | <i>7</i> | <i>January 17, 2017 *</i> |

** Date Received is date of completed inspection, commercial grade dedication and was delivery to facility.*

On January 16, 2018, during the performance of bench calibration of GE Type CR120BD relay at Seabrook, the relay failed to operate reliably during the 100 cycles test at 125VDC. When energized the relay coil made a loud noise and the contacts chattered excessively. Bench calibration process was ceased and condition report written.

ISC-TC was contacted and after further investigation, it was determined that during performance of the commercial grade dedication plan, the relays were subjected to a 90VDC pickup voltage test, during which three relays had chatter and the test was stopped. The test results were documented via NEE Discrepancy Report and subsequently dispositioned as acceptable.

The disposition of acceptance was documented by the procurement engineer based on engineering judgment and resulted in removal of the 90VDC pickup voltage test.

Review of NEE parts database identified that GE CR120BD relays are required to meet the modification specifications, which states, in part, that a 125 VDC relay is to have a minimum pickup voltage of 90 VDC.

The failure of the three relays to successfully pass the 90VDC pickup test is considered a deviation from the design specification.

Based on review of EDG control circuits, a failure of this relay, like the one that occurred during the bench testing, could prevent the safety related Emergency Diesel Generator (EDG) from starting and loading.

- v. The date on which the information of such defect or failure to comply was obtained.

Date of Discovery January 16, 2018

Seabrook site personnel provided preliminary evaluation of the condition and ISC-TS completed the evaluation concluding reportability pursuant to 10 CFR Part 21 on March 13, 2018.

NRC was notified by telephone on March 15, 2018 (ref EN 53262).

- vi. In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

The following table provides the location of the affected relays identified in item (iii).

| <i>Purchase Order</i> | <i>Total Purchased</i> | <i>Designation</i> | <i>Location</i> |
|------------------------------|-------------------------------|------------------------------|--|
| 2350829 | 7 | <i>QTY 6 UTC 1250264</i> | <i>Seabrook (1 item in warehouse and 5 items issued to Work Orders 40440581, 40440590, 40440599, 40440626, 40489421 – All 6 returned to CPED Facility)</i> |
| | | <i>QTY 1 UTC 1259096</i> | <i>ISC-TS Seismic Sample (Not for plant use)</i> |

The dedicated relays were not provided to any third party customers.

- vii. The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

In response to this event, the following corrective actions were completed.

- *All seven Items have been accounted for and are not installed*
 - *QTY 1 item at ISC-TS CPED is the Seismic Sample and is not for plant use*
 - *QTY 6 relays have been accounted for and have been returned to ISC-TS CPED Facility and will not be used in any safety related applications*

The following corrective actions are planned.

- *Seabrook Catalog ID requirements will be clearly identified for future procurement*
- *CGD Plan will be updated to include 90VDC pickup voltage testing*
- *Training of ISC – TS personnel on end use design input and importance of searching documents associated with end use*
- *Training of ISC – TS personnel on disposition of item discrepancies found during CGD*

- viii. Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None

- ix. In the case of an early site permit, the entities to whom the early site permit was transferred.

This event does not involve an early site permit.