

# framatome

PROS 0728

June 28, 2018  
NRC:18:023

U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

## 10 CFR Part 21 Notification of Existence of a Defect

This letter provides notification of a reportable defect in accordance with 10 CFR Part 21. This defect was reported to the NRC Operations Center by facsimile at 2:33 p.m. EST on June 2, 2018.

The defect concerns the failure of Eaton NBF relays to change state.

Actions already taken to address the defect are provided in the attachment to this letter.

If you have any questions related to this information, please contact Ms. Gayle Elliott, Deputy Director, Licensing and Regulatory Affairs by telephone at (434) 832-3347, or by e-mail at [Gayle.Elliott@framatome.com](mailto:Gayle.Elliott@framatome.com).

Sincerely,



Gary Peters, Director  
Licensing & Regulatory Affairs  
Framatome Inc.

cc: J. G. Rowley  
Project 728

Attachments:

- 1 Attachment A – Notification of 10 CFR 21 Defect

IE19  
NRR

Framatome Inc.  
3315 Old Forest Road  
Lynchburg, VA 24501  
Tel: (434) 832-3000

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Attachment A

Notice of 10 CFR 21 Defect

**Subject:**

Notification of 10 CFR 21 Defect

**Name and Address of Individual Informing the Commission:**

Gayle Elliott  
Deputy Director, Licensing & Regulatory Affairs  
Framatome Inc.  
3315 Old Forest Road  
Lynchburg, Va. 24501

**Title:**

Failure of Relays to Change State

**Identification of Basic Activity:**

Eaton NBF66F Relay, Part Numbers ANP00156, ANP00159, and ANP00160

**Basic Activity Supplied By:**

Framatome Inc.

**Nature of Defect:**

While performing analysis on AC Eaton NBF relays, Framatome discovered that, unless a specific application technique is utilized while applying epoxy to the pin within the crossbar, the potential for the epoxy to become foreign material is introduced. This foreign material could migrate to the area between the moving and stationary magnets, preventing the relay from completing its change of state when called upon. This condition does not occur in the de-energized direction. Framatome has not been notified of any occurrence of this condition with relays that have been installed in nuclear power plants. This was discovered during bench testing of new replacement relays provided to HB Robinson between 2008 and May of 2013 as discussed in the following paragraph.

A different epoxy application technique was utilized between 2008 and May of 2013 on relays provided to HB Robinson (the only customer requiring the epoxy application by Framatome). Thus, a potential for this defect is limited to those relays provided to H.B. Robinson during that time period.

**Defect Determination Date:**

This issue was determined to be a 10 CFR 21 Defect on May 31, 2018.

**Number and Location of Basic Components:**

307 potentially affected safety related relays with epoxy applied to their relay pins were supplied to the H.B. Robinson nuclear plant.

**Corrective Actions to Date:**

The application process was reevaluated and revised in 2013.

H.B. Robinson was notified of this 10CFR21 reportable defect on June 1, 2018 by Framatome Inc. via telephone. Detailed information regarding the defect was informally provided from Framatome Inc. to H.B. Robinson later that same day and in a formal letter on June 2, 2018.

**Advice related to the Defect:**

Framatome provided a letter to the customer on June 2, 2018 to resolve this issue.