



May 2, 2011

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
FAX 301-816-5151

Subject: 10 C.F.R. Part 21 Notification of Potential Defect, P/N 611130-T13-N SS5 Solid State Relay

Dear Sir or Madam:

This letter provides notification of a failure to comply with specifications associated with the SS5 Relay, Part Number 611130-T13-N.

The notifying individual is Mr. Dennis Batovsky, Managing Director, ABB Inc. (Protective Relay and Switches), 4300 Coral Ridge Rd, Coral Springs FL, 33065.

Identification of the subject component is as follows: SS5 Solid State Relay, Part Number 611130-T13-N.

The instantaneous trip function of the relay may actuate at 16 times normal current instead of the design value of 24 times normal current.

On 3 March, 2011, ABB was notified by Progress Energy – Brunswick plant (“Brunswick”) that spare relays being tested prior to being placed in service were tripping at approximately 4700 amps instead of the expected 7200 amps. Brunswick stated that their applications require having a short time delay for all faults up to the 24 times instantaneous value is critical for system design and compliance with their design basis and licensing documents.

Subsequent evaluation by ABB Engineering determined that the relay works as intended. However, if there is a fault at the same time the relay is energized, the instantaneous unit becomes more sensitive, and will operate at lower than expected current level.

For conditions where a fault occurs downstream of an associated in-service circuit breaker, the relay works as intended, for single phase, phase to phase, and three phase fault conditions.

Sales records show that only four orders of the subject relay were ever shipped, and each of these four orders was with Progress Energy, with the orders all being processed via ABB Medium Voltage Service, in Florence, SC. The order numbers and quantities are as follows, with the first three orders being shipped from ABB Coral Springs, FL and the fourth order shipped from ABB Allentown, PA: AA027730 qty. 10, AA319168 qty. 7, AA319152 qty. 7, and PC06895 qty. 3.

**ABB Inc.**

JE19  
HRR



ABB is taking, or has taken, the following corrective actions:

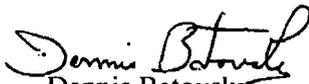
- Reworked Qty. 23 units for Brunswick to convert the units to Part Number 611130-T11-N, by removing the target circuit. This prevents the pre-mature trip at lower current.
- One additional unit has been retained at ABB Coral Springs to support continued testing to confirm the fault condition.
- Three units have not been accounted for, and are assumed to be in service. (Purchased by ABB Florence for Progress Energy Brunswick 4/11/08, Sales Order PC06895, Relay Serial Numbers 85948, 85949, and 85950)
- The 611130-T13-N relay has been obsoleted to prevent future sales.
- ABB Engineering is determining whether other similar relays of different ratings have a similar defect. Action to complete by July 1, 2011.

ABB does not have the capability to perform the evaluation to determine if a defect exists, so we are informing the purchasers or affected licensees of this determination so that the purchasers or affected licensees may evaluate the deviation or failure to comply, pursuant to §10CFR 21.21(a).

ABB recommends that the affected licensees evaluate their specific application and determine whether the deviation described in this notice affects their design basis. If the licensee determines that it does, the relays may be returned to ABB for conversion by removing the target circuit.

If you have any questions regarding this notice, please contact the ABB Technical Support at 954-752-6700.

Very truly yours,

  
Dennis Batovsky

**ABB Inc.**

Part 21 (PAR)

Event # 46807

|   |   |      |  |
|---|---|------|--|
| <b>Rep Org:</b> ABB INC                 | <b>Notification Date / Time:</b> 05/02/2011 17:12 (EDT) |      |  |
| <b>Supplier:</b> ABB INC                | <b>Event Date / Time:</b> 05/02/2011 (EST)              |      |  |
|   | <b>Last Modification:</b> 05/02/2011                    |      |  |
| <b>Region:</b>                          | <b>Docket #:</b>  |      |  |
| <b>City:</b>                            | <b>Agreement State:</b> No                              |      |  |
| <b>County:</b>                          | <b>License #:</b>                                       |      |  |
| <b>State:</b>                           |   |      |  |
| <b>NRC Notified by:</b> DENNIS BATOVSKY | <b>Notifications:</b> DEBORAH SEYMOUR                   | R2DO |  |
| <b>HQ Ops Officer:</b> BILL HUFFMAN     | PART 21 E-MAIL GROUP                                    |      |  |
| <b>Emergency Class:</b> NON EMERGENCY   |   |      |  |
| <b>10 CFR Section:</b>                  |   |      |  |
| 21.21                                   | UNSPECIFIED PARAGRAPH                                   |      |  |

#### NOTIFICATION OF POTENTIAL DEFECT IN SOLID STATE RELAY

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