

INITIAL 10 CFR PART 21 NOTIFICATION

PILGRIM NUCLEAR POWER STATION

Subject:

Initial Notification per 10 CFR Part 21.21(c)(3)(i) by:
Pilgrim Nuclear Power Station (PNPS), License No. DPR-35 regarding:

Incorrect trip units, instantaneous (LSIT1) vs. long time/short time(LST1), installed in spare, quality grade "Q", electrical breakers, Type AK-2A-50. These breakers were supplied by General Electric Nuclear Energy (GE), 175 Curtner Avenue, San Jose, CA 95125

Background:

Spare breakers had been sent to GE, Philadelphia, PA, for overhaul and upgrade (dedication) to quality grade "Q". This was specified in BECo PO # RRR001864, items 3 & 4.

During shop work testing on these spare breakers by BECo following initial receipt inspection, it was noted that the trip units installed were of the "instantaneous" (LSIT1) type rather than the specified "long time-short time" (LST1) type.

Although the deviations from the technical requirements of the purchase order were properly identified prior to installation, the BECo guidelines for conforming to 10 CFR Part 21 require that a Substantial Safety Hazard Evaluation be performed assuming the deviation remains undetected and is subsequently installed in the plant with the worst case design event and single failure to follow.

BECo follows the guidelines of NUREG 0302, Rev. 1 in the Part 21 evaluation procedures. In accordance with 10 CFR Part 21, all defects (deviations) in basic components must be reported to the NRC.

Substantial Safety Hazards Determination:

The worst case random failure single failure of a safety related component would be the loss of the "A" Emergency Diesel Generator (EDG). Because of the deviation contained in the 480 volt feeder breakers from MCC B2 to MCC B6 (i.e., instantaneous trip units), a loss of breaker trip coordination would be in effect. Therefore, an electrical fault in a non-safety related load feed from B6 could cause the feeder breakers to trip before the load beaker, causing a fast transfer of B6 to B1, which is fed from the "A" EDG. Consequently, a loss of the "A" EDG would leave B6 de-energized.

The following is a hypothetical sequence of events relating to the subject breakers:

- DBA LOCA Inside Containment coincident with loss of offsite power
- EDG "A" fails to start
- A non-safety related load on B6 faults, causing the B2 feeder breakers to trip

The above events would leave B6 and the "A" train ECCs de-energized. This means only "B" core spray would be available for makeup because the LPCI loop selection components are powered from B6. The availability of only one core spray pump during a DBA LOCA is an unanalyzed condition.

Using the definition of defect contained in Part 21, the evaluated deviation could cause a Substantial Safety Hazard and is therefore reportable to the NRC.

Root Cause:

9410120210 941007
PDR ADDOCK 05000293
S PDR

JE19 0/1

The root cause of this event has not yet been determined.

The subject breakers were returned to GE for rework to install the correct type of trip unit as specified on the original purchase order.

30 Day Notification:

Written notification to the NRC will be made within 30 days following this immediate notification pursuant to the requirements of 10 CFR Part 21.21(c)(3)(ii).

Questions regarding this notice should be directed to:
Mr. James D. Keyes, Acting Licensing Division Manager
(508)-830-7942
Boston Edison Company, Pilgrim Station

BEC0 #4.94.033