PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION I OCTOBER 8, 19
93

Licensee/Facility:

Duquesne Light Co.
Beaver Valley 1 2
Shippingport,Pennsylvania

Notification:

MR Number: 1-93-0102
Date: 10/08/93
RI PC

Dockets: 50-334,50-412
PWR/W-3-LP,PWR/W-3-LP

Subject: FOXBORO SPEC 200 AMSAC DESIGN DEFICIENCY

Reportable Event Number: N/A

Discussion:

In response to Information Notice 92-06, Supplement 1 (Indian Point 3

AMSAC Reliability), Duquesne Light has determined that the turbine ram
p
timer requirement for a time delay seal-in on low feedwater flow was n
ot
incorporated into the system design. AMSAC is designed to initiate

auxiliary feedwater upon loss of feedwater (<25% flow) provided second
ary
power is >40%. Variable timer B-3 is designed to delay the initiation
of
AMSAC as a function of turbine power (impulse pressure). The time dela
y
is 25 seconds at 100% power and 150 seconds at 40% power. The purpose
of
this time delay is to allow the reactor protection system to generate
a
protective signal before AMSAC initiates.

Because a loss of load is one of the events for which AMSAC mitigation
is
required, the timer must recognize that a loss of turbine load has

occurred and yet maintain the timer at the pre-event value. However,

Beaver Valley has identified that the AMSAC initiation timer does not lock in the power level from which it has been activated. Under conditions of changing turbine power (turbine trip) the lack of the seal in requirement would cause the time delay to be outside the time delay envelope. This envelope is based on limiting peak reactor coolant system pressure within the ASME stress limit. This design deficiency is due to the fact that Westinghouse Owners Group topical report WCAP-10858-P-A, Revision 1, "AMSAC Generic Design Package" did not include this seal-in function. This seal-in function of the AMSAC delay timer is only discussed in the cover letter which transmitted this WCAP report to the NRC. This design omission may be a generic issue to Foxboro units as Ginna Power Station has also identified this identical deficiency. This omission was not found during the system acceptance tests at the vendor facility, the initial installation tests, or the periodic surveillance tests. This is due to the fact that the tests involved static conditions of turbine load, not dynamic conditions of turbine load.

Regional Action:

The resident inspectors are onsite monitoring licensee activities.

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