

From: <david.chrzanowski@exeloncorp.com>
To: <gfd@nrc.gov>
Date: 10/6/05 6:53PM
Subject: PRT ISSUES

Action Required: FYI
Recommendation:

George -

Here is a write-up on the pressurizer relief tank it needs work but I think covers the concerns. Depending on the schedule for completion, Joe may be able to offer some suggestions.

<<prt.doc>>

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The individual is concerned that the ability to bleed and feed the Byron Station, Unit 1 pressurizer relief tank (PRT) may be degraded and as a result, the capability to use the pressurizer power operated relief valves to cooldown and depressurize the RCS during a natural recirculation procedure could be compromised. The individual states that difficulties in filling and draining the Byron Station, Unit 1 PRT were the basis of a previous NRC allegation. However, in a January 30, 2004 response to this allegation, the licensee concluded that the concern that primary water flow to the PRT was below design was not validated.

The PRT is designed to absorb a discharge of steam equivalent to 110% full power pressurizer steam volume without exceeding pressure and temperature design values. This steam volume is based a loss of load event accompanied by a turbine trip without the resulting direct reactor trip. The total volume of steam vented from the pressurizer to depressurize the plant from a hot standby to a cold shutdown condition is approximately that produced during the loss of load event; however, the rate of release is significantly lower and can be controlled to ensure that the integrity of the PRT is maintained. Since the loose-part scenario involves a non-accident, controlled shutdown, the depressurization operation can be managed to accommodate PRT draining.

While not desirable, and unacceptable per the licensee' operating procedures, if a discharge results in a pressure that exceeds the PRT design, the rupture discs on the tank would pass the discharge through the tank to the containment drains and would not impair the capability for safe plant shutdown.