

pipework meets PP&L's design conformance to GDC 56 and is verified via a 10CFR50 Appendix J Type 'A' test. The integrity of the closed systems is also monitored and controlled via Technical Specification 6.8.4.a.

The subject valves may be open, or change state, postaccident to support the design function of their associated ECCS systems (HPCI, Core Spray, RHR) or RCIC. The subject valves function as system valves during the periods when they are open or in an intermediate state, not as containment isolation valves. Reliance is placed on the suppression pool seal and the closed system piping to maintain the barrier between primary and secondary containment atmospheres.

Therefore, with the valve and closed system configuration unaffected by the proposed change, the existing barriers to primary containment atmospheric leakage are maintained, so long as the suppression pool level is ensured.

The suppression pool is designed and operated so that it is filled with water in accordance with Technical Specifications 3/4.5.3, "Suppression Chamber," 3/4.6.2, "Depressurization Systems—Suppression Chamber," and the associated Bases. The supply of water in the suppression pool is assured for 30 days during all design basis, post-accident modes of operation. Type 'C' leak rate testing has historically been performed on valves associated with lines that connect to the suppression pool. The acceptance criteria for combined leakage from these penetrations is 3.3 gpm. This leakage rate is at a level which ensures the 30 day post-accident suppression pool level. However, for the valves discussed in this change, seat leakage past the CIV is into a closed and filled system. Thus "leakage" from the suppression pool, past the CIV, is a function of closed system leakage.

As mentioned above, the integrity of the closed system piping is verified via a 10CFR50 Appendix J Type 'A' test and is monitored and controlled via Technical Specification 6.8.4.a. TS 6.8.4.a establishes a program to monitor and control leakage from systems located outside containment that could contain highly radioactive fluids during a serious transient or accident. This program applies to the ECCS systems and RCIC affected by the proposed change and ensures that leakage into secondary containment via packing, flanges, seals, etc., is controlled. Leakage from these systems, plus the Scram Discharge Volume, Reactor Water Clean-up, and PASS, has been found to be very low, and well below the 5 gpm limit established for these systems. Current leakage for Unit 1 is 0.14 gpm and for Unit 2, 0.043 gpm. The proposed change is not expected to contribute to higher levels of system leakage. Any leakage from these systems is processed via Standby Gas Treatment and the radwaste system to maintain ALARA and comply with regulatory guidance. The closed systems are maintained filled, so that a supply of water exists on both sides of the isolation valves.

While suppression pool leakage is a function of closed system leakage for the subject penetrations, a review of Type 'C' test

data for the subject CIVs showed that the valves have had low leakage rates during previous tests. This leakage is on the order of 0.6 gpm, per unit. Proposed testing of the valves under Section XI and the current requirements of the Generic Letter 8910 program will ensure valve operability.

Therefore, leakage past the CIV and out of the closed system is expected to be low and in keeping with the design basis for the suppression pool. However, the capability does exist to make-up water to the suppression pool from the Condensate Storage Tank or Spray Pond if necessary. Existing Emergency Operating Procedures require actions if suppression pool level is less than 22 feet or greater than 24 feet. Thus, the level of the suppression pool is ensured, independent of the current CIV Type 'C' testing requirement.

The proposed change to the scope of Type 'C' testing for the subject valves maintains the existing barriers to primary containment leakage, and ensures that the suppression pool level is assured for 30 days during all design basis, post-accident modes of operation. Therefore, the plant response to the design basis events is unchanged, and the proposal does not create the possibility of a new or different kind of accident from any accident previously evaluated.

III. This change does not involve a significant reduction in a margin of safety.

As discussed in questions I and II, the proposed change does not alter the plant response to existing accident scenarios, and does not introduce new or different scenarios. So the margin of safety from a design basis accident standpoint is maintained.

Historically, the leakage rate through the subject valves has been determined under the Type 'C' testing program. This leakage rate has been found to be very low, and is currently on the order of 0.6 gpm. Quantifying leakage past the CIVs has been used to ensure that the suppression pool level is assured for 30 days post-accident. Under the proposed change, this leakage rate will not be quantified. This is acceptable since leakage from the suppression pool is in reality a function of closed system leakage, not solely CIV leakage. Closed system leakage is monitored and controlled by an existing Technical Specification program. Closed system leakage has been found to be very low on both units, and is currently a small fraction of a gallon per minute compared with a 5 gpm allowable. Therefore, leakage past the CIV and out of the closed system is expected to be low and in keeping with the design basis for the suppression pool. However, the capability does exist, and is proceduralized, to make-up water to the suppression pool from the Condensate Storage Tank or Spray Pond if necessary. Thus the current capability to maintain adequate suppression pool level for 30 days postaccident is assured under the proposed change.

Therefore the proposed change to the scope of Type 'C' testing for the subject valves does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this

review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

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*Pennsylvania Power and Light Company, Docket Nos. 50-387 and 50-388 Susquehanna Steam Electric Station, Units 1 and 2, Luzerne County, Pennsylvania*

*Date of amendment request:* March 31, 1995.

*Description of amendment request:* These amendments would modify the surveillance requirement for reactor coolant system pH analysis in section 4.4.4 of the Technical Specifications (TS) for each unit. Also, they would clarify in the TS that the pH analysis would be taken at least every 72 hours whenever reactor coolant conductivity exceeds 1.0  $\mu\text{mho/cm}$ .

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

I. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The pH limits on reactor coolant are not affected by this change. The pH will be measured whenever it is theoretically possible for it to be outside the Tech Spec [Technical Specifications] limits of <5.6 or >8.6 (i.e., whenever the conductivity is greater than 1.0  $\mu\text{mho/cm}$ ). Because of the theoretical relationship between pH and conductivity as shown in Attachment A [see application dated March 31, 1995, for this reference], it is possible to establish pH limits on the reactor coolant by limiting the conductivity. As shown in this figure, the pH must be >5.6 and <8.6 if the conductivity is less than or equal to 1.0  $\mu\text{mho/cm}$ . Attachment A was taken from Regulatory Guide 1.56 Revision 1, July 1978 "Maintenance of Water Purity in Boiling Water Reactors". As noted in both FSAR final safety analysis report and Technical Specification Bases, the pH and conductivity limits for OPERATIONAL CONDITION 1 are consistent with this theoretical relationship. The Bases for Section 3/4.4.4 of the Tech Specs [Technical Specifications] contains [contain] the following statement: "When the conductivity is within limits, the pH,