

**From:** Mahesh Chawla  
**To:** Joseph.bauer@exeloncorp.com  
**Date:** 11/8/02 10:03AM  
**Subject:** Request for TS change - Revision to TS 3.7.1, "Main Steam Safety Valves," for Byron/Braidwood Plants

With reference to your submittal for the above request dated August 7, 2002, NRC staff has a list of questions which we would like to discuss with you. The questions are listed below. After reviewing this request for additional information, please let me know about your availability to have a telephone conversation to discuss the above. If you have any further questions, please give me a call.

By letter dated August 15, 2002, Exelon, the licensee for the Braidwood and Byron plants, submitted proposed changes to the Technical Specification (TS) 3.7.1, "Main Steam Safety Valves (MSSVs)." The proposed TS revises, in part, the maximum allowable power levels and their corresponding required operable MSSV numbers in Table 3.7.1-1. The values in TS Table 3.7.1-1 are revised to account for a reduction in the Power Range Neutron Flux - High (PRNF-H) reactor trip setpoint with rated power conditions. The licensee indicated that the maximum allowable power level specified in Table 3.7.1-1 was determined using the simple heat balance calculation. The licensee also stated that its "plant specific sensitivity studies" demonstrated that use of this simple heat balance calculation is sufficiently conservative at all power levels if an allowance of 7.4% for Nuclear Instrumentation System channel uncertainty and an MSSV setpoint tolerance of 4% are assumed in the plant specific analyses.

The following information is needed for the staff to continue its review of the proposed TS changes:

(1) Provide an example calculation to show that the maximum allowable power is 56% of the rated thermal power when each steam generator has four operable MSSVs as proposed in TS Table 3.7.1-1. The calculation should show that the Power Range Neutron Flux - High reactor trip is adequately accounted for overpressure prevention during the applicable design-basis events at lower-power operation conditions.

(2) Discuss the "plant specific sensitivity studies" that demonstrated that use of the simple heat balance calculation is conservative at all power levels. This description should discuss the calculational methods or computer codes used in the analysis and justify their acceptability for supporting TS changes; list the design-basis events considered in the analysis and identify the worst case used to determine the maximum allowable power and the reduced PRNF-H reactor trip setpoints; include the values of input parameters important to the analysis results and show their conservatism; and demonstrate that the results of the plant specific analysis meet the applicable acceptance criteria.

(3) Discuss an analysis performed with acceptable methods and the worst case consideration to show that the proposed reduced PRNF-H trip setpoints are adequate by demonstrating that the results of the analysis meets the applicable acceptance criteria specified in the Standard Review Plan with respect to the pressure limits and DNBR safety limits.

**CC:** C. Craig Harbuck; Summer Sun  
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