

September 7, 2000

Mr. James Davis, Director  
Operations Department  
Nuclear Energy Institute  
1776 I Street, N. W.  
Suite 400  
Washington, DC 20006-3708

SUBJECT: PROPOSED MODIFICATIONS TO TSTF-337, "WOG STS 3.5.5 SEAL  
INJECTION FLOW"

Dear Mr. Davis:

This is to inform you that the staff has completed its review of TSTF-337 in which the NEI Technical Specification Task Force (TSTF) proposed changes to the Standard Technical Specification (STS) requirements.

The Westinghouse Owner's Group (WOG) proposes to change TS 3.5.5 LCO to "Reactor coolant pump seal injection flow resistance shall be within limits." WOG further defines RCP seal flow resistance limits in the Bases section of Surveillance Requirement (SR) 3.5.5.1. The three acceptance criteria for flow resistance limits proposed by the WOG are:

1. The flow resistance shall restrict a maximum seal injection flow to 40 gpm for the plant conditions with the reactor coolant system (RCS) at normal operating pressure, a minimum charging pump discharge header pressure of 2480 psig and the charging flow control valve at the full-open position.
2. The flow resistance shall limit seal injection flow and differential pressure within the acceptable region of Figure B 3.5.5-1.
3. The flow resistance shall be greater than  $0.2117 \text{ ft/gpm}^2$ .

Further, the WOG states that the acceptance criteria for flow resistance limits discussed in items 1 through 3 above are established to ensure that the limits are sufficient for RCP seal integrity but limited so that the ECCS trains are capable of delivering sufficient water to match boiloff rates soon enough to minimize uncovering of the core following a large LOCA. Since we find that the WOG's acceptance criteria for the flow resistance limits meet the intent of the current STS 3.5.5, we conclude that acceptance criteria for the proposed flow resistance limits would provide the same level of protection as the current STS 3.5.5 with respect to ECCS performance, and are acceptable. However, the specific values of the seal flow resistance limits are different for each plant and are subject to the staff review and approval for plant specific licensing applications.

Additionally, we find that the WOG's approach to relocate the specific values of seal flow resistance limits from the LCO to the Bases section is not acceptable. As stated in WOG STS B 3.5.5, RCP seal flow limits have been identified as important parameters that affect the initial condition (including ECCS flow) of design basis accidents (such as an LOCA). In accordance with the 10 CFR 50.36(c)(2)(ii)(B) requirements, an LCO of RCP seal flow shall be established in the TS. 10 CFR 50.36(a) further states that "... A summary statement of the Bases or reasons for such specifications... shall not become part of the technical specifications." The WOG has proposed to use the sentence "Reactor coolant pump seal injection flow resistance shall be within limits" in STS LCO 3.5.5, and proposed to further define the "flow resistance limits" in the Bases section of TS SR 3.5.5.1 for completion of the LCO. Since the Bases, according to 10 CFR 50.36(a), are not part of the TS, the proposed TS 3.5.5 is not a complete TS. To satisfy the requirements of 10 CFR 50.36(c)(2)(ii)(B), the WOG should propose a complete LCO for RCP seal injection flow in TS 3.5.5 without relying on a definition of "flow resistance limits" in the Bases section of the TS. An STS may be acceptable if one or more of the acceptance criteria discussed in items 1 through 3 above are included in the proposed LCO, and ACTION and SURVEILLANCE REQUIREMENT items are corrected to be consistent with the corresponding acceptance criteria. In addition, if a figure is used to define the acceptance criteria for the LCO, that figure must be included in the LCO itself.

We would be happy to meet with you at your earliest convenience to discuss our proposed changes. Please contact me at (301) 415-1161 or e-mail [wdb@nrc.gov](mailto:wdb@nrc.gov) if you have any questions or need further information.

Sincerely,

**/RA/**

William D. Beckner, Chief  
Technical Specifications Branch  
Office of Nuclear Reactor Regulation

cc: See attached list  
J. Arbuckle, BWROG  
T. Weber, CEOG  
N. Clarkson, BWOOG  
S. Wideman, WOG  
D. Hoffman, EXCEL  
V. Gilbert, NEI

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