



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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NOTE FOR: Roger J. Mattson, Director, DSI
FROM: L. S. Rubenstein, AD for Core & Plant Systems, DSI
SUBJECT: NEED FOR REVISION OF TECHNICAL SPECIFICATION 3.4.1.1 FOR
SUSQUEHANNA UNIT 2

We feel that this Technical Specification, which provides limiting conditions (hours) for operation in natural circulation and with only one recirculation loop, is not sufficiently prescriptive to protect against the potential for thermal hydraulic instability. As you may be aware, GE recently presented the staff with stability test data which demonstrated the occurrence of limit cycle neutron flux oscillations at natural circulation and several percent above the rated rod line. The oscillations were observable on the APRM's and were suppressed with control rod insertion. It was predicted that limit cycle oscillations would occur at the operating condition tested, however; the characteristics of the observed oscillations were different than those previously observed at other stability tests. Namely, the test data showed that some LPRMs oscillated out of phase with the APRM signal and at an amplitude as great as six times the core average.

General Electric is preparing a SIL for release in about two weeks to alert their plants of this new data and to recommend actions to avoid and control abnormal neutron flux oscillations. The staff has reviewed the GE SIL and feels that the actions proposed are good and prudent. The CPS staff has contacted the Susquehanna project manager and will be working with the applicant to see that the final Susquehanna Technical Specification 3.4.1.1 is amended to properly protect against the potential for thermal hydraulic instability.

Lee

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*we have been working with DL (Gus)
on this and are very close to a generic
solution for the CR's who want to go
to 50% power on a single loop operation.
we will also prepare a request for DST*