February 1, 2005

MEMORANDUM TO: Ralph Caruso, Advisory Committee on Reactor Safety

FROM: Herbert N. Berkow, Director /RA/

Project Directorate IV

Division of Licensing Project Management Office of Nuclear Reactor Regulation

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 (WATERFORD 3)

- PREVENTION OF BORIC ACID PRECIPITATION IN A POST-LOCA LONG TERM COOLING MODE FOR THE PROPOSED EXTENDED

POWER UPRATE

In response to the questions on the subject item during the Advisory Committee on Reactor Safety (ACRS) sub-committee (S/C) briefing on January 26, 2005, I am attaching the staff evaluation of the licensee's submittal, as well as the submittal by the licensee. This is for use during the ACRS full-committee briefing, currently scheduled for February 10, 2005, at 8:30 a.m.

Please note that the staff's independent calculations are consistent with licensee's results identifying the margins available regarding the boric acid concentration present in the system at the time of switch to simultaneous injection. The concentration level of boron at the 3-hour switch time is about 18 weight percent or well below the Regulatory limit of 39.8 weight percent. The staff evaluation is included as Attachment 1.

Please also note that staff has not had a chance to review the licensee submittal in a detailed manner due to the time constraint. However, a quick perusal indicates that the calculations appear to be in order and are within the envelope of calculations performed by the staff. The licensee's submittal is included in the form of a CD as Attachment 2.

The staff has already forwarded the "BACCHUS PWR Vessel Mixing Tests" report. We are, therefore, not attaching the report here. We also request you to note that the report is proprietary in nature and take appropriate steps in handling it. If necessary, we may need to request the public to step out of the room when the proprietary items are being discussed.

We thank you for all the assistance you provided to set up the ACRS S/C and full-committee briefings. If you have any questions, please contact N. (Kaly) Kalyanam, Project Manager, Waterford 3, at 415-1480.

Docket No. 50-382

Attachments: As stated

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