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Docket No.: 50-364

NL-08-0475

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant – Unit 2
Reactor Vessel Surveillance Capsule V Results

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50 Appendix H, Southern Nuclear Operating Company (SNC) hereby submits Westinghouse Report WCAP-16918-NP, Rev. 1, April 2008, "Analysis of Capsule V from the Southern Nuclear Operating Company Joseph M. Farley Unit 2 Reactor Vessel Radiation Surveillance Program." This report presents the test results from Capsule V, the 6th and final surveillance capsule removed from the reactor vessel. These test results were used to evaluate reactor vessel material properties following 21.8 effective full power years (EFPY) of plant operation (equivalent to about 78 EFPY of capsule fluence).

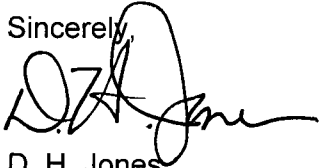
Based on the enclosed surveillance capsule test results, properties of the reactor beltline materials are predicted to remain more than adequate for continued safe plant operation through the end of the renewed license period (i.e. to about 54 EFPY). However, review of the capsule test results with respect to the FNP Unit 2 Pressure Temperature Limits Report (PTLR) showed that the pressure temperature limit curves currently in the PTLR, which are labeled for a service period to 33.8 EFPY, must have their service period reduced to 32.8 EFPY.

The Unit 2 PTLR will be revised to incorporate the Capsule V analysis results and re-label the pressure temperature limit curves to 32.8 EFPY. The revised Unit 2 PTLR will be submitted by September 30, 2008.

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If you have any questions, please advise.

Sincerely,



D. H. Jones
Vice President – Engineering

DHJ/DWD/daj

Enclosure: WCAP-16351-NP, Rev. 1, April 2008, "Analysis of Capsule V from the Southern Nuclear Operating Company, Joseph M. Farley Unit 2 Reactor Vessel Radiation Surveillance Program"

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. J. R. Johnson, Vice President – Farley
RTYPE: CFA04.054; LC#14740

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Acting Regional Administrator
Mr. R. A. Jervy, NRR Project Manager – Farley
Mr. E. L. Crowe, Senior Resident Inspector – Farley

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Enclosure

**WCAP-16351-NP, Rev. 1, April 2008, “Analysis of Capsule V from the
Southern Nuclear Operating Company, Joseph M. Farley Unit 2
Reactor Vessel Radiation Surveillance Program”**