

October 9, 1998 RC-98-0185

Document Control Desk U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Gentlemen:

Subject:

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50/395

OPERATING LICENSE NO. NPF-12

REACTOR VESSEL RADIATION SURVEILLANCE PROGRAM

Gary J. Taylor Vice President Nuclear Operations

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Virgil C. Summer Nuclear Station

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Enclosed is WCAP-15101, Revision 0, Analysis of Capsule W from the South Carolina Electric & Gas Company V. C. Summer Unit 1 Reactor Vessel Radiation Surveillance Program, as required by 10CFR50, Appendix H. This report reflects the results of tests performed on Capsule W which was withdrawn from the reactor vessel during the tenth refueling outage at the Virgil C. Summer Nuclear Station (VCSNS).

Also enclosed is WCAP-15103, Revision 0, Evaluation of Pressurized

Thermal Shock for V. C. Summer Unit 1 which included the results of the tests
performed on Capsule W and has determined that the RT_{PTS} values for all the
beltline materials in the VCSNS Unit 1 reactor vessel are below the screening
criteria of 270°F for plates, forgings or longitudinal welds and 300°F for
circumferential welds at End of License (32 EFPY).

A proposed surveillance capsule removal schedule is included for your review and is contained in the report on page 7-1. The proposed revision to the removal schedule is technically justified since the projected 32 EFPY fluence for the reactor vessel beltline material is greater than the estimated fluence exposure of Capsule W.

Additionally, per 10CFR50, Appendix G, WCAP-15101 has verified that an upper shelf energy greater than 50 ft-lbs is expected throughout the life of the vessel for all beltline materials.

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The existing heatup (Technical Specification Figure 3.4-2) and cooldown curves (Technical Specification Figure 3.4-3), are valid until the thirteenth effective full power year (EFPY). Prior to the thirteenth EFPY (Spring of 1999), a proposed amendment to the Technical Specifications will be submitted to update the heatup and cooldown curves, incorporating the test results of Capsule W.

Should you have any questions, please call Mr. Michael J. Zaccone at (803) 345-4328.

Very truly yours,

Gary J. Taylor

GJT/MJZ Enclosures (2)

c: (Enclosures on file in NL&OE)

J. L. Skolds (w/o enclosures)

R. R. Mahan (w/o enclosures)

W. F. Conway

R. J. White

L. A. Reyes

L. M. Padovan

NRC Resident Inspector

J. B. Knotts, Jr.

NSRC

DMS (RC-98-0133)

RTS (RR 5100) (w/o enclosures)

File (818.23-2)