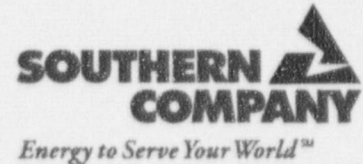


Lewis Sumner
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May 18, 1999

Docket Nos. 50-321
50-366

HL-5785

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

Edwin I. Hatch Nuclear Plant
Third Ten Year Interval Inservice Testing
Submittal of Additional Request for Relief

Ladies and Gentlemen:

Attached is a new Relief Request for the Third 10-Year Interval Inservice Testing Program for the Edwin I. Hatch Nuclear Plant. The new Relief Request, RR-V-16, was developed to propose an alternate schedule for replacement of High Pressure Coolant Injection (HPCI) rupture discs.

Should you have any questions in this regard, please contact this office.

Respectfully submitted,

A handwritten signature in cursive script that reads "Lewis Sumner".

H. L. Sumner, Jr.

IFL/eb

Attachment: Relief Request RR-V-16

cc: Southern Nuclear Operating Company
Mr. P. H. Wells, Nuclear Plant General Manager
SNC Document Management (R-Type A02.001)

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. L. N. Olshan, Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator
Mr. J. T. Munday, Senior Resident Inspector - Hatch

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Attachment
VALVE RELIEF REQUEST
RR-V-16

VALVE RELIEF REQUEST
RR-V-16

SYSTEM(S): High Pressure Coolant Injection System (E41)

COMPONENTS: 1E41-D003 1E41-D004
2E41-D003 2E41-D004

CATEGORY: D

CLASS: 2

TEST REQUIREMENT:

ASME OM Code, 1995 Edition, Appendix I, paragraph I 1.3.6 requires Class 2 and 3 nonreclosing pressure relief devices (rupture discs) to be replaced every 5-years, unless historical data indicates a requirement for more frequent replacement.

REQUIREMENT FOR WHICH RELIEF IS REQUESTED:

Relief is requested from the Code required automatic replacement of the subject rupture discs every 5-years.

BASIS FOR RELIEF:

The subject rupture discs are supplied by Continental Disc Corporation. Southern Nuclear Operating Company requested the supplier to perform cyclic testing, to destruction, of a disc that had previously been installed in the HPCI system at Plant Hatch.

The test disc was installed in an appropriate disc holder and flange assembly which simulated the installed configuration. The rupture disc assembly was cycled from full vacuum to 70% of the ambient burst pressure (219 psig). The cycle testing was conducted at ambient room temperature. Since a rupture disc is a differential pressure relief device, cycling conditions were achieved by placing a constant 15 psig pressure on the downstream side of the rupture disc and cycling the upstream pressure from zero to 70% of the ambient burst pressure plus 15 psig. The 15 psig added to the upstream cycling pressure compensates for the constant 15 psig pressure on the down stream side. An electronic counter recorded each cycle. The test disc completed 2,788 cycles before failure occurred. The rupture disc burst in the normal fashion as with disc of this design.

The HPCI system is tested monthly at a maximum. Monthly testing results in approximately 72 tests during 4 operating cycles (i.e., 72 months). To meet the Code 5-year replacement frequency, the disc must be replaced every 3rd refueling outage or after approximately 54 HPCI system tests. Therefore, a change from replacement every 54 months to every 72 months is insignificant when compared to the expected life of the disc as proven by the number of cycles required for disc rupture by vendor testing.

Plant Hatch operates on an 18-month fuel cycle. Replacement every 6 years results in replacement every 4th refueling outage whereas a 5-year replacement results in replacement every 3rd refueling outage. Extension of the replacement frequency by 1-year will coincide with the fuel cycle for Plant Hatch. As proven by the vendor testing, the subject rupture discs have adequate margin for operation beyond the requested 6-year replacement frequency. Therefore, an adequate margin of safety is provided and the requested relief is warranted by 10CFR50.55a(a)(3)(i).

ALTERNATE TESTING:

The subject rupture discs will be replaced at least once every 4th refueling outage.