

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 18, 2001

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 01-012
NL&OS/GDM R1
Docket Nos. 50-280, 281
License Nos. DPR-32, 37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
ASME SECTION XI RELIEF REQUESTS RR 14 AND RR 8

Surry Power Station Units 1 and 2 are presently in the third ten year inservice inspection interval, and examinations are conducted to the requirements of the 1989 Edition of ASME Section XI. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested from certain examination requirements of the ASME Section XI Code. Specifically, relief is requested from the requirement to perform a visual (VT-2) examination of the bottom of the reactor vessel during Code-required system leakage and hydrostatic tests due to the hardship of performing the examinations without a compensating increase in the level of quality and safety. The basis for the relief is provided in the attached relief requests.

Similar relief was previously granted to North Anna Power Station Unit 1 in relief request SPT-1 in a letter from Mr. Richard Emch, Jr. of the NRC to Mr. James P. O'Hanlon of Virginia Electric and Power Company dated April 25, 2000 (TAC No. MA5750).

Relief request No. 14 for Surry Unit 1 and No. 8 for Surry Unit 2 are provided in Attachments 1 and 2, respectively. The relief requests have been approved by the Station Nuclear Safety and Operating Committee.

If you have any questions concerning these requests, please contact us.

Very truly yours,



L. N. Hartz
Vice President - Nuclear Engineering and Services

AD47

Attachments

No new commitments are being made in this correspondence.

cc: U. S. Nuclear Regulatory Commission
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Mr. R. A. Musser
NRC Senior Resident Inspector
Surry Power Station

Mr. R. Smith
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Surry Power Station

Attachment 1

Relief Request No. 14
Surry Power Station Unit 1

SURRY UNIT 1
RELIEF REQUEST NO. 14

I. IDENTIFICATION OF COMPONENTS

System: Reactor Coolant (RC)

Components: Partial Penetration Welds at Bottom of Reactor Vessel

ISI Class: 1

II. CODE REQUIREMENTS

Section XI of the ASME Boiler and Pressure Vessel Code, 1989 Edition, Category B-E, Item No. 4.10, requires reactor vessel partial penetration welds to have a visual (VT-2) examination during the system hydrostatic test of IWB-5222. In addition, Category B-P, Item Nos. B15.10 and B15.11, require a visual (VT-2) examination of the bottom of the reactor vessel during the system leakage test of IWB-5221 and during the system hydrostatic test of IWB-5222, respectively.

III. BASIS FOR ALTERNATIVE

In order to meet the Section XI pressure and temperature requirements for the system leakage and system hydrostatic tests of the reactor vessel, the Surry Unit 1 reactor containment is required to be at subatmospheric pressure. Station administrative procedures require that self-contained breathing apparatus must be worn for containment entries under these conditions. This requirement significantly complicates the visual (VT-2) examination of the bottom of the reactor vessel during testing. Access to the bottom of the reactor vessel requires that the examiner descend several levels to a ladder in the residual heat removal pump area. The examiner then must descend down the ladder and navigate a small entrance leading to the reactor vessel. In addition to these physical constraints, the examiner must contend with adverse environmental conditions including elevated air temperatures due to reactor coolant temperatures above 500 degrees F and limited air circulation in the vessel cubicle. Further, the examiner is limited by the approximate 45-minute capacity of the breathing apparatus for containment entry, the VT-2 examination, and containment exit.

SURRY UNIT 1
RELIEF REQUEST NO. 14
(Continued)

IV. PROPOSED ALTERNATIVE

A VT-2 examination will be conducted each refueling when the reactor containment is at atmospheric conditions for evidence of boric acid corrosion. Further, Technical Specifications require that the reactor coolant system leak rate be limited to 1 gallon per minute unidentified leakage, and this value is calculated at least daily. Additionally, containment atmosphere particulate radioactivity is monitored continuously, and the incore sump room has a level alarm in the control room that is typically available and requires operator action in the event an alarm is received. These provisions would adequately identify any integrity concerns associated with this area (i.e., the bottom of the reactor vessel).

Similar alternative requirements were approved for North Anna Unit 1 (relief request SPT-1) by the NRC in a letter dated April 25, 2000 pursuant to 10 CFR 50.55a(a)(3)(ii) (TAC No. MA5750).

V. IMPLEMENTATION SCHEDULE

Pursuant to 10 CFR 50.55a(a)(3)(ii), Surry Unit 1 is requesting an alternative examination instead of the Code-required examinations at the bottom of the reactor vessel during system leakage and hydrostatic tests due to the hardship of performing the examinations without a compensating increase in the level of quality and safety. Upon NRC approval, the proposed alternative will be implemented for the next refueling shutdown.

Attachment 2

Relief Request No. 8
Surry Power Station Unit 2

SURRY UNIT 2
RELIEF REQUEST NO. 8

I. IDENTIFICATION OF COMPONENTS

System: Reactor Coolant (RC)

Components: Partial Penetration Welds at Bottom of Reactor Vessel

ISI Class: 1

II. CODE REQUIREMENTS

Section XI of the ASME Boiler and Pressure Vessel Code, 1989 Edition, Category B-E, Item No. 4.10, requires reactor vessel partial penetration welds to have a visual (VT-2) examination during the system hydrostatic test of IWB-5222. In addition, Category B-P, Item Nos. B15.10 and B15.11, require a visual (VT-2) examination of the bottom of the reactor vessel during the system leakage test of IWB-5221 and during the system hydrostatic test of IWB-5222, respectively.

III. BASIS FOR ALTERNATIVE

In order to meet the Section XI pressure and temperature requirements for the system leakage and system hydrostatic tests of the reactor vessel, the Surry Unit 2 reactor containment is required to be at subatmospheric pressure. Station administrative procedures require that self-contained breathing apparatus must be worn for containment entries under these conditions. This requirement significantly complicates the visual (VT-2) examination of the bottom of the reactor vessel during testing. Access to the bottom of the reactor vessel requires that the examiner descend several levels to a ladder in the residual heat removal pump area. The examiner then must descend down the ladder and navigate a small entrance leading to the reactor vessel. In addition to these physical constraints, the examiner must contend with adverse environmental conditions including elevated air temperatures due to reactor coolant temperatures above 500 degrees F and limited air circulation in the vessel cubicle. Further, the examiner is limited by the approximate 45-minute capacity of the breathing apparatus for containment entry, the VT-2 examination, and containment exit.

SURRY UNIT 2
RELIEF REQUEST NO. 8
(Continued)

IV. PROPOSED ALTERNATIVE

A VT-2 examination will be conducted each refueling when the reactor containment is at atmospheric conditions for evidence of boric acid corrosion. Further, Technical Specifications require that the reactor coolant system leak rate be limited to 1 gallon per minute unidentified leakage, and this value is calculated at least daily. Additionally, containment atmosphere particulate radioactivity is monitored continuously, and the incore sump room has a level alarm in the control room that is typically available and requires operator action in the event an alarm is received. These provisions would adequately identify any integrity concerns associated with this area (i.e., the bottom of the reactor vessel).

Similar alternate examination requirements were approved for North Anna Unit 1 (relief request # SPT-1) by the NRC in a letter dated April 25, 2000 pursuant to 10 CFR 50.55a(a)(3)(ii) (TAC No. MA5750).

V. IMPLEMENTATION SCHEDULE

Pursuant to 10 CFR 50.55a(a)(3)(ii), Surry Unit 2 is requesting an alternative examination instead of the Code-required examinations at the bottom of the reactor vessel during system leakage and hydrostatic tests due to the hardship of performing the examinations without a compensating increase in the level of quality and safety. Upon NRC approval, the proposed alternative will be implemented at the next refueling shutdown.