



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

February 27, 2003

EA-03-009

10 CFR 2.202

Secretary
Office of the Secretary of the Commission
U.S. Nuclear Regulatory Commission
ATTN: Rulemakings and Adjudications Staff
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of)	Docket Nos. 50-327
Tennessee Valley Authority)	50-328
		50-390

RESPONSE TO ISSUANCE OF ORDER ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEADS AT PRESSURIZED WATER REACTORS (PWRs) FOR SEQUOYAH NUCLEAR PLANT (SQN) UNITS 1 AND 2; AND WATTS BAR NUCLEAR PLANT (WBN) UNIT 1

The Tennessee Valley Authority (TVA) hereby submits its response to the Order for Establishing Interim Inspection Requirements for RPV for PWRs (hereinafter "Order") issued by the Nuclear Regulatory Commission (NRC) on February 11, 2003.

Pursuant to the requirements of 10 CFR § 2.202, Enclosure 1 to this letter provides TVA's Answer to the Order. Enclosure 2 to this response provides additional information pertaining to SQN and WBN's susceptibility ranking calculated utilizing the methodology prescribed in the Order.

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In addition, because TVA will incorporate NRC's inspection requirements prescribed in the subject Order, the inspection-related commitments contained in TVA's April 2, 2002, 15-Day responses for SQN and WBN (two letters) to NRC Bulletin (BL) 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," and TVA's September 11, 2002, 30-Day response to NRC BL 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Program," are superceded by this response.

Further, in those cases when it is determined either before or during an inspection of a specific nozzle in which the required coverage can not be obtained (e.g., visual inspection of 100% of the head surface, 360 degrees around a nozzle and NDE coverage up two inches above the weld), TVA will submit a relief request in accordance with 10 CFR 50.55a(a)(3), as prescribed in the Order. This letter does not contain any regulatory commitments.

If you have any questions concerning this matter, please contact Terry Knuettel at (423) 751-6673.

Sincerely,



Mark J. Burzynski
Manager
Nuclear Licensing

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 27th day of February 2003.

Enclosure

cc (Enclosures):

U.S. Nuclear Regulatory Commission
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cc: Continued on page 3

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periodic inspections of RPV heads and associated penetration nozzles at PWRs (based on a function of susceptibility to primary water stress corrosion cracking) are necessary to provide reasonable assurance that plant operations do not pose an undue risk to public health and safety. Consequently, it was deemed necessary to establish a minimum set of RPV head inspection requirements as a supplement to existing inspection and other requirements in the ASME Code and NRC regulations, through the issuance of an Order to PWR Licensees.

Therefore, the NRC stated that in order to provide reasonable assurance of adequate protection of public health and safety for the interim period, all PWR Licenses identified in the Attachment to the Order shall be modified to include the inspection requirements for RPV heads and associated penetration nozzles identified in Section IV of the Order. In addition, pursuant to 10 CFR 2.202 and due to the circumstances described above, the NRC stated that the public health, safety, and interest required the Order to be immediately effective.

TVA's response to the substantive requirements of the Order is contained in a letter dated March 3, 2003, along with its enclosures, as directed by the Order. In accordance with Section V of the Order and 10 CFR 2.202, TVA hereby consents to the Order and specifically does not request a hearing.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN), UNITS 1 AND 2
WATTS BAR NUCLEAR PLANT (WBN), UNIT 1

ADDITIONAL INFORMATION TO FEBRUARY 11, 2003
COMMISSION ORDER ESTABLISHING INTERIM INSPECTION
REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEAD AT
PRESSURIZED WATER REACTORS (PWRs)

The following provides additional information pertaining to SQN's and WBN's susceptibility ranking calculated utilizing the methodology prescribed in the Order:

Utilizing the methodology prescribed in the Order, TVA has calculated the susceptibility category for SQN Units 1 and 2, and WBN Unit 1 as represented by the value of "Effective Degradation Years" (EDYs). As stated in the Order, "The calculated value of EDY shall determine the susceptibility category and the appropriate inspection for the RPV head during each refueling outage." The following summarizes the results of these calculations and demonstrates that SQN Units 1 and 2 and WBN Unit 1 are in the low susceptibility category (i.e., EDY less than 8):

Unit	Estimated EFPYs (Effective Full Power Years) at next refueling outage/Date	Head Temperature	Estimated EDYs at next refueling outage	Estimated EDYs at end-of-life (32 EFPY)
SQN U1	13.9 - spring 2003	547	1.46	3.4
SQN U2	14.6 - fall 2003	547	1.54	3.4
WBN U1	6.7 - fall 2003	557.3	1.11	5.3

As shown in the Table, both SQN and WBN are low susceptibility plants as defined by NRC's Order. Neither SQN nor WBN will exceed the NRC established threshold (< 8.0 EDYs) of low susceptibility for the current licensed life of the plants primarily due to the low operating head temperatures.

Summary

Based on the EDYs shown above, TVA's SQN and WBN Units fall in the low susceptibility category and will comply with the required RPV head inspections (i.e., techniques and frequencies) prescribed in the Order (Section IV.C.(3)).