Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

March 9, 2004

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

RESPONSE TO ISSUANCE OF FIRST REVISED NUCLEAR REGULATORY COMMISSION (NRC) ORDER (EA-03-009) ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEADS AT PRESSURIZED WATER REACTORS (PWRs) FOR SEQUOYAH NUCLEAR PLANT (SQN) UNITS 1 AND 2

The Tennessee Valley Authority (TVA) hereby submits its response to the Revised Order for Establishing Interim Inspection Requirements for RPV heads at PWRs (hereinafter "Order") issued by the NRC on February 20, 2004.

Pursuant to the requirements of 10 CFR § 2.202, Enclosure 1 provides TVA's answer to the Order. Enclosure 2 to this response provides additional information pertaining to SQN's low-susceptibility ranking which was calculated utilizing the methodology prescribed in the Order.

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This letter does not contain any regulatory commitments. If you have any questions concerning this matter, please contact J. D. Smith at (423) 843-6672 or me at (423) 843-7170.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 9 day of March, 2004.

Sincerely,

Pedro Salas
Licensing and Industry Affairs Manager

Enclosures
cc (Enclosures):
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ATTN: Document Control Desk
Washington, D.C. 20555-0001

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cc: Continued on page 3

cc (Enclosures):
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Washington, D.C. 20555-0001

NRC Senior Resident Inspector
Sequoyah Nuclear Plant
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ENCLOSURE 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

Sequoyah Nuclear Plant, Unit 1 and Unit 2

ANSWER TO FEBRUARY 20, 2004
COMMISSION REVISED ORDER ESTABLISHING INTERIM INSPECTION
REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEAD AT
PRESSURIZED WATER REACTORS (PWRs)

On February 20, 2004, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order in the captioned matter entitled, "First Revised Order Modifying Licenses" to, *inter alia*, TVA. The Order stated that since the issuance of the Order Modifying Licenses (Effective Immediately)(EA-03-009), dated February 11, 2003, that was issued to establish required inspections of RPV heads and associated penetration nozzles at PWRs, the NRC staff has reviewed and granted many requests for relaxation thereof. The arguments in the relaxation requests provided reasonable assurance of the continued structural integrity of the RPV head, and the associated nozzle penetrations and J-groove welds. As a result, NRC has determined that it is appropriate to revise that Order with respect to bare metal visual inspections, penetration nozzle inspection coverage, flexibility in combining nondestructive examination (NDE) methods, flaw evaluation, and requirements for plants which have replaced their RVP head.

Additionally, NRC has determined that it is appropriate and necessary for the protection of public health and safety to establish a clear regulatory framework, pending the incorporation of revised inspection requirements into 10 CFR 50.55a. To provide reasonable assurance of adequate protection of public health and safety for the interim period, those PWR Licenses identified in the attachment to the subject Order were to be modified to include the inspection requirements for RPV heads and associated penetration nozzles identified in Section IV of the Order.

TVA's response to the substantive requirements of the Order is contained in TVA's letter dated March 9, 2004, 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 does not request a hearing.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN), UNITS 1 AND 2

ADDITIONAL INFORMATION PURSUANT TO
FEBRUARY 20, 2004 COMMISSION ORDER ESTABLISHING
INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE
VESSEL (RPV) HEAD AT PRESSURIZED WATER REACTORS

The following provides additional information pertaining to SQN'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, 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 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	15.45 - Fall 2004	547	1.62	3.4
SQN U2	16 - Spring 2005	547	1.68	3.4

As shown in the Table, SQN is a low-susceptibility plant as defined by NRC's Order. The SQN RPV head will not exceed the NRC established threshold (< 8.0 EDYs) of low susceptibility for the current licensed life of the plant primarily due to the low operating head temperatures.

TVA has completed the bare metal visual examination of the reactor vessel head surface described in paragraph IV.C(5)(a) for SQN Units 1 and 2. In accordance with IV.E, the inspection results were provided to NRC by letters dated August 14, 2003, for SQN Unit 1, and June 13, 2002, for SQN Unit 2.