



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

MAR 11 2004

EA-03-009

10 CFR 2.202

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - RESPONSE TO ISSUANCE OF
FIRST REVISED NRC ORDER (EA-03-009) ESTABLISHING INTERIM
INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEADS
AT PRESSURIZED WATER REACTORS (PWRs)

Tennessee Valley Authority (TVA) hereby submits its response to
the Revised Order for Establishing Interim Inspection
Requirements for RPV for PWRs (hereinafter "Order") issued by 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 provides
additional information pertaining to WBN's low susceptibility
ranking which was calculated utilizing the methodology prescribed
in the Order.

WBN is in the process of planning and scheduling a considerable
amount of work in Unit 1 containment associated with steam
generator replacement project. Until that planning and
scheduling process is complete, WBN is unable to develop a firm
schedule for completing the nonvisual nondestructive examination

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Rec'd 6/17/04
6/17/04*

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of the RPV head penetrations addressed in paragraph IV.C.(3) of the Order. Should WBN require any schedule relief, TVA will submit an appropriate relief request in accordance with paragraph IV.F of the Order and 10 CFR 50.55a(a)(3).

This letter does not contain any regulatory commitments. If you have any questions concerning this matter, please contact me at (423) 365-1824.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 11th day of March 2004.

Sincerely,



P. L. Pace
Manager, Site Licensing
and Industry Affairs

Enclosures

cc (Enclosures):

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cc: Continued on page 3

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cc (Enclosures):

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NRC Senior Resident Inspector
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Spring City, Tennessee 37381

ENCLOSURE 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of
Tennessee Valley Authority

Docket Nos. 50-390

WATTS BAR NUCLEAR PLANT, UNIT 1

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

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 the reactor pressure vessel (RPV) heads and associated penetration nozzles at pressurized water reactors (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 plant which have replaced their reactor pressure vessel 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 11, 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

WATTS BAR NUCLEAR PLANT (WBN), UNIT 1
NRC ORDER EA-03-009 ESTABLISHING INTERIM INSPECTION
REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) HEAD
ADDITIONAL INFORMATION

The following provides additional information pertaining to 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 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 this calculation and demonstrates that WBN Unit 1 is 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)
WBN U1	8.0 - Spring 2005	557.3	1.33	5.3

As shown in the Table, WBN is a low susceptibility plant as defined by NRC's Order. WBN 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 temperature.

TVA has completed the bare metal visual examination of the reactor vessel head surface described in paragraph IV.C(5)(a) for WBN Unit 1. In accordance with IV.E, the inspection results were provided to NRC by a letter dated December 10, 2003.