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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

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SEP 15 1986

U.S. Nuclear Regulatory Commission
Region II
Attention: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT
50-391/86-14-03 AND 50-390/86-14-03 - RESPONSE TO VIOLATIONS

Enclosed is our response to G. G. Zech's letter dated August 1, 1986 to S. A. White which transmitted IE Inspection Report Nos. 50-390/86-14 and 50-391/86-14 citing activities at Watts Bar Nuclear Plant which appeared to be in violation of NRC regulations. Enclosed is our response to citation 391/86-14-03, failure to control deviations from specifications. Our initial response for citation 390/86-14-04 was submitted by my letter to you dated September 4, 1986.

To the best of my knowledge, I declare the statements contained herein are complete and true.

If there are any questions, please get in touch with J. A. McDonald at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. Gridley
R. Gridley, Director
Nuclear Safety and Licensing

Enclosure

cc (Enclosure):

Mr. James Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNIT 2
RESPONSE TO NRC REGION II LETTER FROM G. G. ZECH
DATED AUGUST 1, 1986
REPORT NOS. 50-390/86-14 and 50-391/86-14

This report responds to the notice of violation described in enclosure 1 of the NRC-Region II inspection report referenced above. This is our final report on this item of noncompliance.

Violation 391/86-14-03

10 CFR 50, Appendix B, Criterion III as implemented by TVA's QA Topical Report, TVA-TR-75-1A, Rev. 8, paragraph 17.1.3 requires that measures shall be established to ensure that deviations from quality standards are controlled.

Contrary to the above, as of June 20, 1986, measures were not established to ensure that deviations from quality standards are controlled in that General Design Specifications were not considered as mandatory requirements by Division of Nuclear Engineering personnel. Design procedures did not provide guidance to designers to properly control deviations from specifications.

This is a severity level IV violation (Supplement II) and applies to unit 2 only.

Admission or Denial of Violation

General Construction Specification G-53, "ASME Section III and non-ASME Section III (including AISC, ANSI/ASME B31.1, and ANSI B31.5) Bolting Material," contains instructions for field forces to follow, when designated to do so by appropriate notes on design drawings, when performing work applying to bolting material. Section 9.5 of G-53 addressed locking devices for NF component supports only, which would limit its mandatory application to Bellefonte and later plants. The term NF was omitted from the paragraph heading "Locking Devices for Component Supports." The omission was not questioned because reviewers understood the link with "NF" and "Component Supports." The latter term was not in general use except in conjunction with the former. Also G-53 R5, footnote 5 (which was footnote 3 of Rev. 3, December 15, 1982) states that, "References to the requirements of ASME Section III, NF component supports throughout this specification apply to Bellefonte and later plants and are offered for guidance and use at earlier plants."

The ASME code governing safety related piping at Watts Bar Nuclear Plant Units 1 and 2 refers to USAS B31.1.0-1967 for design of supports for class 2 and 3 piping, and to USAS B31.7-1969 for class 1 piping. Neither USAS B31.1 nor USAS B31.7 require locking devices except for turnbuckles and similar devices.

TVA general construction specifications, such as G-53, have been provided to serve as consistent reference sources for designers (see EN DES EP-3.04, paragraph 3.1, OEP-08, paragraph 5.1.1.3, and NEP-5.1, paragraph 5.1.1.3.). General construction specifications have been applicable only when specifically referenced in a design drawing or other design output document. These references are made as part of the normal design drawing preparation review and approval process. Exceptions to the general construction specifications can also be incorporated in a design drawing by the normal design review and approval process.

The inspection report used the term General Design Specification when referencing General Construction Specification G-53. In the TVA design process, general construction specifications are not design input documents as defined by NEP-3.2 or OEP-06. General construction specifications are listed as design output documents in NEP-5.1 and OEP-08. Both NEP-3.2 and OEP-6 require that exceptions to design criteria documents (i.e., design input) be technically justifiable and documented. Also, in the inspection report, standard specifications are referenced as input documents defined by OEP-06. The term, standard specifications, is listed in Section 1.0 of OEP-06, but is more properly defined as "standard procurement specifications" in Section 3.1. The same misleading situation exists in Sections 1.0 and 3.0 of NEP-3.2. This terminology does not apply to the general construction specifications.

In addition, it was noted that 10 fasteners on piping supports in the unit 2 safety injection pump room did not have locking devices installed. There are no upper tier requirements to provide locking devices on the 10 fasteners for the piping clamps of these supports.

Consequently, TVA denies the violation occurred in that general construction specifications are not "mandatory requirements" in the form of design input documents but general design output documents that are incorporated by reference in specific design output documents when needed, and that the implementation of general construction specifications are controlled by the normal design review and approval process as specified in existing procedures. For the specific observation leading to the Notification of Violation, TVA submits that the requirements of Section 9.5 of General Construction Specification G-53 do not apply to the Watts Bar Nuclear Plant.

Although TVA does not believe this citation to be valid, shortcomings in the design control process have been identified by internal audits, employee concerns, and regulatory reviews. Consequently, TVA is developing a Design Baseline and Licensing Verification Program which will provide a basis for additional confidence that the construction of Watts Bar unit 1 satisfies licensing commitments. It will supplement and provide confirmation in the effectiveness of the current licensing, design, and construction processes and their resolution of specific technical and programmatic issues. This program was initially described in our August 19, 1986 letter from R. L. Gridley to Hugh Thompson and subsequently discussed in our meeting with NRC on August 21, 1986. The outcome of this program will be considered for applicability to unit 2.