

TENNESSEE VALLEY AUTHORITY

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400 Chestnut Street Tower II

August 24, 1983

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U.S. Nuclear Regulatory Commission
Region II
Attention: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT
50-390/83-14, 50-391/83-10 - SUPPLEMENTAL RESPONSE TO VIOLATION (390/83-14-01)

The subject inspection report cited TVA with two Severity Level IV Violations
(390/83-14-01, 390/83-14-02) in accordance with 10 CFR 2.201. Our response to
the subject violation was submitted on July 5, 1983.

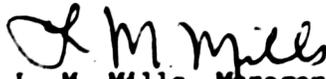
As a result of a telecon held Friday, August 5, 1983, between representatives
of NRC Region II and TVA, we are forwarding this supplemental response to
clarify information conveyed in TVA's July 5, 1983 response to the subject
violation.

If you have any questions, please get in touch with R. H. Shell at FTS
858-2688.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY


L. M. Mills, Manager
Nuclear Licensing

Enclosure

cc (Enclosure):

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
NRC-OIE REGION II INSPECTION REPORT
50-390/83-14 AND 50-391/83-10
SUPPLEMENTAL RESPONSE TO VIOLATION (390/83-14-01)

Violation 390/83-14-01 - Severity Level IV Violation (Supplement II)

10 CFR 50, Appendix B, Criterion V, as implemented by TVA Topical Report TVA-TR75-1A, "Quality Assurance During Design and Construction," paragraph 17.1A.5, requires that activities affecting quality shall be accomplished in accordance with instructions, procedures, or drawings. Watts Bar quality control procedure QCP-4.10-9 requires that valve orientation be verified to corresponding physical drawing and that the locknut on top of the valve operator should be verified to be tight.

Contrary to the above, activities affecting quality were not being accomplished in accordance with documented instructions, procedures, or drawings in that: (1) Mechanical QC accepted three valves that were not installed with the operator in the proper direction as shown on the piping drawing, and (2) Mechanical QC accepted three valves on which the locknut on top of the operator was not tight.

Admission or Denial of the Alleged Violation

TVA denies both items 1 and 2 of the violation as stated. Mechanical Quality Control Unit (MQC) personnel did correctly perform inspections as required by procedures in effect at the time inspections were made and in effect at present. TVA's July 5, 1983 response described procedural requirements for valve inspection and traced changes in criteria pertaining to valve orientation and bolting through the revision levels of the appropriate procedures. Rather than repeating that information, this response will present an overview of the procedural requirements and the rationale behind them.

The NRC inspector in his inspection report makes no reference to procedure WBNP-QCP-4.29, "Standard Inspection and Documentation Requirements for Valves and Valve Operators." For this reason, the detailed information pertaining to inspecting to the requirements of QCP-4.29 was included in our initial response in an effort to provide pertinent background information which was not reviewed by the NRC inspector during his inspection.

When the subject TVA inspection was performed, inspection of radial orientation of valves, in accordance with WBNP-QCP-4.29, was applicable to those equipped with operators (i.e., pneumatic, manual gearbox, chainwheel, or motor) for which radial orientation is specified by drawing and not for valves operated by a simple handwheel or T-handle. This is further clarified by the fact that they are excluded in the current revision of procedure WBNP-QCP-4.10-9 which states in paragraph 7.7, "undimensioned operators are not verified for orientation." This revision was a result of unresolved item 390/83-14-06, which questioned why the orientation of these type manual valves was not verified by IEB 79-14 inspectors. The Division of Engineering Design (EN DES) response to this unresolved item stated, in part:

"Hand operated valve stem orientations, where the center of gravity lies within the boundary of the piping, is not considered in the piping analysis. This policy lets small valves be oriented in any direction without analysis considerations If a valve has a center of gravity outside of the boundary of the pipe, the orientation of the valve is included and the extended structure is considered in the analysis. For example, if a hand operated valve requires a gear box to provide manual operation, then the orientation of the stem would be considered in the piping analysis."

TVA also contends that the MQC inspectors properly interpreted procedure WBNP-QCP-4.29 and that appropriate valve inspection procedures are reflective of the intent of TVA designers regarding the orientation of undimensioned operators.

TVA contends that the inspection for tightness of handwheel retaining nuts was properly conducted. In the absence of specific locking devices, which are not employed with the nuts in question and are not specified on vendor drawings, the inspectors were only required to verify that bolting corresponded to TVA and vendor drawings and to verify by hand that bolting was tight at the time of inspection. Operation of the valve subsequent to the inspection may have caused the handwheel nuts to loosen slightly. Furthermore, all these valves are drain valves and drain valve operation is not a safety-related function. If the handwheel or T-handle is missing the operator can either obtain another handle or operate the valve with a wrench.

In summary TVA contends that QC inspection of the valves in question was properly conducted in accordance with the established QA program. We trust that this supplemental response has clarified and reinforced the intent of our original response.