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

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10 CFR 50.55a

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of ) Docket No. 50-390
Tennessee Valley Authority )

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION XI INSERVICE TESTING PROGRAM RELIEF REQUESTS - PV-10, REVISION 1 AND PV-17 - CLARIFICATION (TAC NO. MA9088)

The purpose of this letter is to provide clarification to the subject relief requests which were previously submitted on May 25, 2000. Based on discussion with the Staff, TVA is superseding the relief requests in the May 25, 2000, letter and replacing the requests with the enclosed revisions to reference a more appropriate Code relief section and to clarify refueling outage intervals.

Relief Request PV-10 was originally approved by NRC in NUREG-0847, WBN Supplemental Safety Evaluation Report 14 under 10 CFR 50.55a(f)(6)(i). The purpose of this revision is to alter the stated time at which the valves are disassembled and inspected from "*every refueling outage*" to "*once per fuel cycle.*" This would allow online disassembly and inspection of these valves. Justification for the revised relief request is provided in Enclosure 1 and annotated for your convenience. The revision also deletes valves 1-CKV-67-513-A-A, 1-CKV-67-513-B-B, 2-CKV-67-513-A-A, and 2-CKV-67-513-B-B from the relief request. These four

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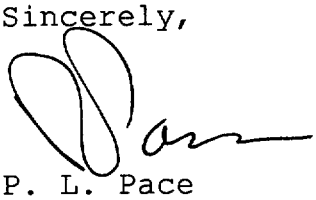
valves are normally in the closed position and the open function can be tested. Therefore, a relief request for these four valves is not required to meet the Code requirements.

Enclosure 2 provides justification for a new relief request PV-17 to also alter the stated time at which certain valves in the containment spray system are disassembled and inspected from "*every refueling outage*" to "*once per fuel cycle.*" This would allow online disassembly and inspection of these valves. These valves were originally part of Relief Request PV-13, however, the valves were deleted in PV-13, Revision 1, which was submitted on March 29, 2000. No other relief is requested for these valves as the valves are from different manufacturers, and therefore, sampling is not an option.

TVA requests that NRC review and approve these requests by September 1, 2000. These relief requests are needed before the third refueling outage which is scheduled to begin mid-September 2000. If you should have any questions concerning this matter, please contact me at (423) 365-1824.

Sincerely,



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Enclosures
cc: See page 3

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ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1
REQUEST FOR RELIEF PV-10 REVISION 1

I. **Relief Request Number** - PV-10, Revision 1

**Executive Summary** - Relief Request PV-10 documented a request to utilize disassembly and inspection on a sampling basis in lieu of full stroke exercising each check valve. This request applied to certain check valves that do not have adequate test connections to allow full stroke exercising to the closed position. That relief request was approved in WBN Supplemental Safety Evaluation Report (SSER) 14.

PV-10 originally included valves 1-CKV-67-513A-A, 1-CKV-67-513B-B, 2-CKV-67-513A-A, and 2-CKV-67-513B-B. These four valves are normally closed valves in the backup cooling water supply to the emergency diesel generators that must open to fulfill their specific function. These valves are each installed in series with the backup cooling water supply motor-operated-valve and have no specific, safety-related closing function. Open testing of these four valves can and is being accomplished quarterly in accordance with the requirements of OM-10. Therefore, these four valves are not required to be included in Relief Request PV-10.

This revision to PV-10 deletes the above four valves and requests authorization to perform the disassembly and inspection at the same frequency [once per fuel cycle] but on-line rather than during the refueling outage. This allows the disassembly and inspection to be conducted in conjunction with other diesel generator maintenance and eases the man-power loading on skilled valve workers during refueling outages.

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested to allow disassembly and inspection in any reactor mode on a sampling basis, with one valve disassembled and inspected every fuel cycle (not every refueling outage). This proposed alternative would provide an acceptable level of quality and safety.

II. **Affected System(s)** - Essential Raw Cooling Water (ERCW).

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1
REQUEST FOR RELIEF PV-10 REVISION 1

III. **Affected Component(s)** - 1-CKV-67-508A-A
1-CKV-67-508B-B
2-CKV-67-508A-A
2-CKV-67-508B-B

IV. **ASME Code Class** - 3

V. **Category** - C-Active

VI. **Function of Affected Component(s)** - These valves open to pass cooling water flow to its respective diesel generator, and close to provide flow boundary isolation when the backup train cooling water is used to cool the diesels.

VII. **Impractical Requirement** - OM Standard, Part 10, Paragraph 4.3.2.4(c) - *"As an alternative to the testing in (a) or (b) above, disassembly every refueling outage to verify operability of check valves may be used."*

VIII. **Basis for Granting Relief** - The installed configuration of these valves does not provide for any type of testing of the back seat or closing function. Disassembling all four valves imposes an unreasonable burden. During refueling outages, skilled valve workers are a limited resource. Therefore, restricting disassembly and inspection to refueling outage conditions imposes an impact on outage schedule, duration, and cost. The disassembly and inspection may be integrated with other diesel generator maintenance that is also performed on-line, without increasing unavailability time and without increasing the duration of or frequency with which the applicable limiting conditions for operation (LCO) are entered. The proposed frequency of once per fuel cycle is similar to the frequency requirements of Generic Letter 89-04, Regulatory Position 2, without adversely impacting skilled craft availability during a refueling outage.

The WBN Probabilistic Risk Analysis (PRA) indicates that there is a slight increase in risk to make a diesel generator unavailable during the refueling outage than while on-line. Since this disassembly is a significant contributor to the total unavailability of the diesels during the refueling outage, moving the disassembly to on-line would have some small benefit from decreased

risk during the outage. Performing the disassembly and inspection on-line, in conjunction with a planned diesel maintenance outage, would not increase the duration of the maintenance outage and therefore, would not increase the risk above that already being incurred.

IX. **Proposed Alternative** - Group the valves into groups of not more than four valves with all valves in each group being identical in design, material and manufacture; environmental (including physical orientation) and radiological conditions; and function. Disassemble and inspect one valve from each group once per fuel cycle, but not necessarily during a refueling outage, in accordance with the provisions of Generic Letter 89-04, Position 2. If any single valve is found unacceptable, all valves in the associated group will then be disassembled and inspected.

X. **Frequency of Proposed Alternative** - Disassemble and inspect one valve per group once per fuel cycle, but not necessarily during a refueling outage, in accordance with Generic Letter 89-04, Position 2 to verify the backseating function.

XI. **Implementation Schedule** - This request for relief is applicable to the first Inservice interval.

ENCLOSURE 2

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1
REQUEST FOR RELIEF PV-17

I. **Relief Request** - PV-17

**Executive Summary** - PV-17 documents a request for relief to disassembly and inspection during on-line maintenance for certain containment spray system check valves that cannot be full stroke exercised to the open position. Authorization is requested to perform the disassembly and inspection at the frequency of once per fuel cycle, which is similar to the frequency specified in OM-10. However, relief is requested to perform the disassemblies on-line in any reactor mode, rather than during the refueling outage. This allows the disassembly and inspection to be conducted in conjunction with other containment spray system maintenance and eases the man-power loading on skilled valve workers during refueling outages. These valves were originally part of Relief Request PV-13, however, were deleted in PV-13, Revision 1, which was submitted on March 29, 2000 and approved by NRC on June 9, 2000. No other relief is requested for these valves as the valves are from different manufacturers, and, therefore, sampling is not an option.

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested to allow disassembly and inspection in any reactor mode, with each valve disassembled and inspected once per fuel cycle. This alternative provides an acceptable level of quality and safety.

II. **Afffected System(s)** - Containment Spray

III. **Affected Components(s)** - 1-CKV-72-507-B
1-CKV-72-525-B

IV. **ASME Code Class** - 2

V. **Category** - C-Active

VI. **Function of Affected Component(s)** - Valve 1-CKV-72-507-B opens to pass water either from the refueling water storage tank (RWST) or the containment sump to the 1B-B containment spray pump. Valve 1-CKV-72-507-B also closes to provide a flow boundary when the suction supply is from the containment sump.

ENCLOSURE 2

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1
REQUEST FOR RELIEF PV-17

Valve 1-CKV-72-525-B opens to pass water from the 1B-B containment spray pump to the containment spray ring headers.

VII. **Impractical Requirement** - OM Standard, Part 10, paragraph 4.3.2.4(c) - *"As an alternative to the testing in (a) or (b) above, disassembly every refueling outage to verify operability of check valves may be used."*

VIII. **Basis for Granting Relief** - Valves 1-CKV-72-507-B and 1-CKV-72-525-B cannot be full stroke exercised open because the largest flow path available outside containment, a 6-inch line back to the RWST, will not pass the required accident flow (maximum recirculation flow available of approximately 3850 gpm versus a required accident flow of 4000 gpm). Therefore, there is not a flow path available outside containment that allows full stroke exercising these Train B valves to the open position. Flowing through the containment spray ring headers would result in deluging containment with water from the RWST, causing potential damage to equipment inside containment as well as spreading contamination. The valves are from different manufacturers, so sampling is not an option. Disassembly and inspection is allowed by OM Standard, Part 10 as an alternate to testing as stated in the requirement above.

OM-10 also requires the disassembly to be performed every refueling outage. During refueling outages, skilled valve workers are a limited resource. Therefore, restricting disassembly and inspection to refueling outage conditions imposes an impact on outage schedule, duration, and cost. The disassembly and inspection will be scheduled for performance with the unit on-line, in conjunction with other containment spray system maintenance that is also performed on-line, without increasing unavailability time, and without increasing the duration of or frequency with which the applicable limiting condition for operation (LCO) is entered. The proposed alternative to "every refueling outage" corresponds to one fuel cycle and meets the frequency requirements of OM-10 without adversely impacting skilled craft availability during a refueling outage.

Moving this disassembly and inspection item from a refueling outage to on-line does not alter the risk associated with the activity. The work is to be planned and executed in conjunction with a coordinated component maintenance outage. Although accomplishing the work within the planned maintenance window requires assignment of additional resources, it does not conflict with or cause the other work to be extended. Therefore, no additional unavailability time is incurred by performing this work on-line. Since no additional unavailability time is incurred, there is no change in risk.

IX. **Proposed Alternative** - OM-10 requires disassembly every refueling outage to verify operability of check valves. The proposed alternative to this requirement is to disassemble and inspect once per fuel cycle, but not necessarily during a refueling outage. This alternative would allow this function to be performed on-line in conjunction with other maintenance work on this system.

X. **Frequency of Proposed Alternative** - Disassemble and inspect each valve once per fuel cycle to verify its continued operability.

XI. **Implementation Schedule** - This request for relief is applicable to the first inservice interval.