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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Braidwood Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Subject: Response to Program Action Items related to "Second 10-Year Inservice Testing Program- Braidwood Station, Units 1 and 2"

Reference: Letter from Anthony J. Mendiola (U. S. NRR) to O. D. Kingsley, "Second 10-Year Inservice Testing Program- Braidwood Station, Units 1 and 2," dated August 4, 1999.

The above reference provided a Safety Evaluation (SE) for Commonwealth Edison Company's (ComEd) Braidwood Station for certain relief requests from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B & PV Code), Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," requirements. Appendix A of the Technical Evaluation Report (TER) identified certain program action items relative to the testing program that need to be addressed to the Nuclear Regulatory Commission (NRC) within 1 year of the date of the SE describing actions taken, actions in progress, or actions to be taken, to address each of the items. The requested information is provided in the attachment to this letter.

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Should you have any questions concerning this letter, please contact Mr. T. W. Simpkin at (815) 458-2801, extension 2980.

Respectfully,

T. J. Tulon
Site Vice President

Attachment:
Attachment A: Response for Requested Information

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station

ATTACHMENT A

Braidwood Station, Units 1 and 2

Response to APPENDIX A,
IST PROGRAM ANOMALIES IDENTIFIED DURING THE REVIEW

Reference: Letter from Anthony J. Mendiola (U. S. NRR) to O. D. Kingsley, "Second 10-Year Inservice Testing Program- Braidwood Station, Units 1 and 2," dated August 4, 1999.

ATTACHMENT A

IST PROGRAM ANOMALIES IDENTIFIED DURING THE REVIEW (APPENDIX A)

Question 1

Valve Request VR-1 requests relief from the Code exercising requirements for check valves 1/2FW079A, B, C, and D in the line from the main feedwater pumps to the steam generators. The request proposes to include them in a sample disassembly and inspection group and to disassemble and inspect one valve from the group each refueling outage on a rotating basis. The request proposes to postpone the partial-stroke exercise of the disassembled valve following reassembly but perform it before returning it to service. This issue is not discussed in the basis for relief of VR-1, but is mentioned briefly in the proposed alternate testing. This deviates from the Code requirements and as such, should be justified in the relief request basis for relief. In Paragraph 3.1.1.1.2 of this report, the licensee's proposal to delay post maintenance testing of these valves until during startup from the outage was recommended to be authorized in accordance with 10 CFR 50.55a(a)(3)(ii), however, VR-1 should be modified as indicated above in any subsequent program revisions.

Response to Question 1

For Valve Relief Request VR-1 for the 1/2FW079A, B, C, and D valves, the anomaly is that the discussion pertaining to postponing the partial stroke exercise needs to be described in the basis for relief section of Valve Relief Request VR-1. The current relief request only discusses this in the proposed alternate testing portion of the relief request. The SE did authorize delaying the post maintenance testing, however we agree with the recommendation presented in the anomaly that the discussion pertaining to postponing the post maintenance testing should be addressed in the basis for relief portion of the relief request. Valve Request Relief VR-1 has been revised to include this discussion in the basis for relief. The discussion was also revised slightly to more clearly justify postponing the post maintenance test. Our understanding is that the relief request was approved per the SE and this information is provided for clarification.

Question 2

Valve Relief Request VR-2 requests relief from the full-stroke exercising requirements of OM-10, Para. 4.3.2 for containment spray check valves 1/2CS003A/B, 1/2CS011A/B, and 1/2CS020A/B (VR-2 also includes valves 1/2CS008A/B that are not addressed in this anomaly) and proposes to include these valves in a sample disassembly and inspection groups and to disassemble and inspect one valve from each group every 18 months, irrespective of plant mode, on a rotating basis. As, discussed in Section 3.2.1 of this report, relief should not be granted or the alternative authorized to perform sample check valve disassembly and inspection on a refueling outage frequency during power operation for valves 1/2CS003A/B, 1/2CS011A/B, and 1/2CS020A/B. The licensee may, however, perform sample disassembly and inspection of the subject check valves during refueling outages as specified in GL 89-04, Position 2, in accordance with 10 CFR 50.55a(a)(3)(ii). The licensee may develop and submit a technical justification in accordance with the provisions of 10 CFR 50.55a for the proposed disassembly and inspection frequency for these valves.

Response to Question 2

This anomaly was addressed in the Technical Evaluation Report (TER). It was recommended that Valve Relief Request VR-2 not be granted based on inadequate information regarding the reduction of safety associated with entering the Limiting Condition Of Operation (LCO) for performing the check valve inspections, irrespective of plant mode on a rotating basis. However in the SE and the SE cover letter, because the proposed alternative provides an acceptable level of quality and safety, relief was granted provided the limitations and considerations contained in Section 2.1.1 of the SE are considered.

Braidwood Station does consider the guidance from Section 2.1.1 of the SE, when performing disassembly and inspection of valves 1/2CS003A/B, 1/2CS011A/B, and 1/2CS020A/B. These valves have consistently been found to be fully functional during past disassembly and inspections. Considering the inspection history and service conditions of these valves, the probability of finding the valves to be seriously degraded or inoperable is extremely low. The Braidwood Technical Specifications (TS) provide a 7-day LCO during which one train of the CS system can be removed from service and the disassembly and inspection performed. We feel the 7 day period would be sufficient to correct any problems discovered with the valve that is being disassembled and inspected and return the valve and the loop to an operable status. After returning the loop initially found to have a problem to operable status, there is no affect on the Probablistic Risk Assessment (PRA), analysis of having to immediately enter a 7 day LCO for performing inspection activities on the opposite loop of that unit.

Section 2.1.1 provided specific bulleted items for which it is stated that we <u>should</u> follow. We have addressed these items as follows.

- The disassembly and inspection whether on-line or off line is a means of assessing the operational readiness of these valves, as provided by ASME Code Section XI and the OM-10 Code. As these valves have had a history of being fully functional as verified by the disassembly and inspections, we feel it is very unlikely to additionally increase the system unavailability beyond that provided in the 7 day TS LCO, due to the valve being found to be inoperable.

- The disassembly and inspections are carefully planned to prevent repeatedly entering and exiting LCO action statements.

- All on line work is evaluated for risk implication.

- Braidwood Station's practice is to not schedule work on a train if the opposite train is inoperable.

- When performing the on-line disassembly and inspection for a particular loop, we do not perform other testing or maintenance that would increase the likelihood of a transient.

Question 3

Valve Request VR-4, requests relief from the exercising requirements of the Code for valves 1/2DG5182A/B, 1/2DG5183A/B, 1/2DG5184A/B, and 1/2DG5185A/B in the diesel generator air start system. The licensee indicated that proper valve operation will be demonstrated on a monthly basis by the verification of diesel generator air start capability. Such verification will compare the air pressures contained in the receiver tanks both before and after the diesel generator start, thus verifying the operability of the air start control valves. If the decrease in each receiver is approximately equal, it indicates that both air start trains participated in the satisfactory diesel start and the associated control and check valves are not degraded.

The licensee has not specified acceptance criteria for this testing, therefore, the reviewer cannot access its ability to adequately monitor the condition of all of the subject valves. Significant differences in the decrease in receiver tank air pressures could indicate that the control valve or check valve in one of the redundant air start trains is degraded and/or did not fully open. If the acceptance criteria for this testing is not appropriate, the licensee's proposed testing may not provide an adequate method to monitor or detect degradation of these valves unless both trains become degraded to the point that the diesel fails to start within the prescribed time. Without knowledge that the acceptance criteria is adequate to detect valve degradation, long term relief should not be authorized. Therefore, the alternative should be authorized in accordance with 10 CFR 50.55a(a)(3)(ii) for an interim period of two years or until the end of the next refueling outage, whichever occurs first. By the end of this interim period the licensee should submit a technical justification that demonstrates that the acceptance criteria used in this testing adequately monitors the condition of these valves and is capable of detecting any significant degradation.

Response to Question 3

The anomaly pertains to Valve Relief Request VR-4. The concern was that Braidwood had not provided specific acceptance criteria for this testing. The SE 2.1.2 states that since the valves do not fall under the Code required IST program, which applies to Code Class 1, 2, and 3 systems but are required to be tested as augmented tests, staff review is not required before the licensee implements Valve Relief Request VR-4. A further explanation of our testing methods is provided below.

The test to verify that the diesel generator air start valves open involves starting the diesel generator. A successful start of the diesel generator verifies that at least one train of the diesel air start system performed its function. The additional measures described in Valve Relief Request VR-4 are to assure that both trains function as part of the diesel start. In the basis for relief portion of Valve Relief Request VR-4 it states "Such verification will compare the air pressures contained in the receiver tanks both before and after the diesel generator start, thus verifying the operability of the air start control valves." By recording the pressures in the air receiver tanks immediately after the diesel start and verifying that there was a drop in air receiver pressure on both trains, demonstrates that both air start trains function and the valves on both trains open. Though the test procedure does not provide a specific number for the allowable differences in the decrease in receiver tank air pressures, the before and after the diesel start pressure in the air receiver tanks of both trains is recorded in the procedure. We feel the above testing enables us to adequately monitor the condition of these valves.