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Braidwood Generating Station
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May 23, 1997

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Application for EMERGENCY Amendment to Appendix A, Technical Specifications for Facility Operating License:

Braidwood Nuclear Power Station, Unit 1
Facility Operating License NPF-72
NRC Docket Nos. 50-456

"Emergency Core Cooling System Venting"

Pursuant to Title 10, Code of Federal Regulations, Part 50, Section 90 (10 CFR 50.90), Commonwealth Edison Company (ComEd) proposes to amend Appendix A, Technical Specifications, for Facility Operating License NPF-72 for Braidwood Nuclear Power Station, Unit 1 (Braidwood). ComEd proposes to revise Technical Specification Surveillance Requirement (TSSR) 4.5.2.b.1 for Unit 1 as it relates to the requirement to vent the Emergency Core Cooling System (ECCS) pump casings and discharge piping high points outside containment. The current TSSR 4.5.2.b.1 requirements will be retained for Unit 2 although the page will be renumbered as a result of the proposed change to Unit 1.

ComEd requests the United States Nuclear Regulatory Commission (NRC) Staff process this proposed license amendment request as an EMERGENCY as defined in 10 CFR 50.91(a)(5). Braidwood Unit 1 is currently in Day 54 of its sixth refuel outage. Braidwood Unit 1 is in Mode 3, Hot Standby, and prepared to transition to Mode 2, Startup, following refueling activities. An EMERGENCY situation exists in that failure

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to act in a timely way will result in the prevention of the resumption of power operation for Braidwood Unit 1 and result in unnecessary thermal transient of cooling the plant down from Mode 3, Hot Standby, to Mode 5, Cold Shutdown. This EMERGENCY situation occurred because it was identified on May 22, 1997, that Braidwood was not in literal compliance with the wording of TSSR 4.5.2 b.1. Braidwood considered itself in compliance with the requirement by crediting the dynamic venting action of the system in operation as meeting the requirement to ensure that the ECCS piping is full of water. For the piping not directly in the flowpath, gas accumulation was judged not to be credible due to the pressure prevalent in the piping. The idle centrifugal charging pump was considered to be self-venting due to the system design and piping configuration. Due to these circumstances, a opportunity to make a timely application did not exist.

A detailed description of the proposed changes are included in Attachment A.

A markup of the actual Technical Specification (TS) pages is included in Attachment B.

The proposed changes in this license amendment request have been reviewed and approved by both On-site and Off-site Review in accordance with ComEd procedures. ComEd has reviewed this proposed license amendment request in accordance with 10 CFR 50.92(c) and has determined that no significant hazards considerations exist. The No Significant Hazards Determination is included as Attachment C.

An environmental assessment has been completed and is included as Attachment D.

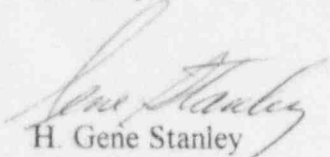
ComEd is notifying the State of Illinois of our application for this license amendment request by transmitting a copy of this letter and its attachments to the designated State Official.

Braidwood will ultrasonically examine the piping described in the new TSSR 4.5.2 b.3 on a weekly basis until this requirement is incorporated into the Braidwood Unit 2 Technical Specifications.

To the best of my knowledge and belief, the statements contained in this document are true and correct. In some respects these statements are not based on my personal knowledge, but on information furnished by other ComEd employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

Please address any comments or questions regarding this matter to Terrence W. Simpkin, Braidwood Regulatory Assurance Supervisor, at (815)458-2801, extension 2980.

Sincerely,



H. Gene Stanley
Site Vice President
Braidwood Nuclear Generating Station

Attachments

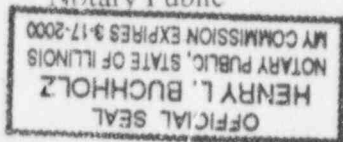
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cc: A. B. Beach, Regional Administrator - RIII
G. F. Dick Jr., Byron/Braidwood Project Manager - NRR
C. J. Phillips, Senior Resident Inspector - Braidwood
Office of Nuclear Facility Safety - IDNS

Signed before me

on this 23rd day of May, 1997

by H. S. Feibag
Notary Public



ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS OF PROPOSED CHANGES TO APPENDIX A TECHNICAL SPECIFICATIONS OF FACILITY OPERATING LICENSE NPF-72

A. DESCRIPTION OF THE PROPOSED CHANGE

Commonwealth Edison (ComEd) proposes to temporarily revise Braidwood Technical Specification (TS) 4.5.2.b.1 and associated bases for Unit 1 as it relates to the requirement to vent the Emergency Core Cooling Systems (ECCS) pump casings and discharge piping high points. The change will revise the venting requirement to encompass the non-operating ECCS pumps and discharge piping which are provided with high point vent valves. Those portions of the ECCS systems which are in communication with operating system pressure and/or flow would not be required to be vented. This would normally encompass the High Head Safety Injection (CV) subsystem during Modes 1-4 operation, and the Low Head Safety Injection Subsystem (RH) during periods when shutdown cooling is in operation. Additionally, the wording of the surveillance will be revised to clearly indicate that the installed high point vent valves and pump casing vent valves will be utilized to accomplish the venting operation. The Intermediate Head Safety Injection (SI) subsystem and the RH subsystem are equipped with pump casing vents. The centrifugal CV pumps are not equipped with pump casing vent valves due to the configuration of the suction and discharge piping. Both the suction and discharge piping enter the pump casing from the top, so the pumps are essentially self-venting. Finally, a new requirement is added to ultrasonically examine the discharge piping of the idle centrifugal pump and the portion of the piping upstream of the High Head Safety Injection isolation valves (1SI8801A&B) adjacent to the vent valve 1SI045 on a monthly basis. These changes are required to align the surveillance requirement with the physical construction of the installed piping, and accommodate operating conditions which preclude cycling of the installed high point vent valve during system operation, while continuing to provide assurance that the ECCS piping remains water solid. These changes will be in effect until the NRC has had an opportunity to review a permanent change request incorporating similar requirements. This permanent change request was submitted separately on 5/23/97 to address this issue for both the Byron and Braidwood Stations.

These proposed changes are discussed in detail in Section E of this attachment. The affected TS and bases pages showing the proposed revisions are included in Attachment B of this request.

B. DESCRIPTION OF THE CURRENT REQUIREMENT

TS 4.5.2.b.1 requires that once per 31 days, the ECCS pump casings and discharge piping high points outside of containment be vented.

C. BASES FOR THE CURRENT REQUIREMENT

The bases for the current requirement is to provide confidence that the ECCS piping is filled with water, and that voiding which could result in unacceptable dynamic loading be precluded. This will help ensure that the ECCS systems will be capable of performing their design function.

D. NEED FOR REVISION OF THE REQUIREMENT

In order to accommodate those portions of the ECCS subsystems which are in operation during the Modes of applicability, and thus not subject to voiding, and to clearly recognize that installed features will be utilized to accomplish the venting activity, the surveillance requirement will be revised to require that only those trains of Intermediate Head Safety Injection (SI) and Low Head SI (RH) which are not in operation will be vented on a monthly basis. This change will better align the venting requirements with the installed piping and vent valve configuration, and preclude the obvious safety concern with venting subsystems which are in operation.

E. DESCRIPTION OF THE REVISED REQUIREMENT

TS 4.5.2 b.1 will be revised to require that each ECCS subsystem be demonstrated OPERABLE at least once per 31 days by venting the ECCS pump casings and discharge piping high points outside of containment that are equipped with high point vent valves for subsystems not in direct communication with operating systems. An expanded bases discussion will be added to clarify that only the RH and SI pumps are equipped with pump casing vent valves. Additionally, it will note that the CV subsystem will not normally be vented, and the operating train of RH will not be vented while shutdown cooling is in operation. Additionally, a new requirement is added to ultrasonically examine the discharge piping of the idle centrifugal pump and the portion of the piping upstream of the High Head Safety Injection isolation valves (1SI8801A&B) adjacent to the vent valve 1SI045 on a monthly basis. Industry experience has shown that ultrasonic examination is effective at identifying voided piping. This process is procedurally controlled at ComEd.

F. BASES FOR THE REVISED REQUIREMENT

The bases for the revised requirement is unchanged from that of the original requirement. The purpose of venting the non-operating subsystems is to ensure that the piping is full of water and to provide confidence that voiding which could result in unacceptable dynamic loading is precluded.

Those subsystems which would not be manually vented would be in communication with an operating system, thus being subjected to system flow and/or pressure. For the CV subsystem, the non-active portion of piping upstream of the injection line isolation valves is subjected to CV pump discharge pressure of approximately 2500 psia. The pumps are designed and installed to be virtually self-venting, and thus are not provided with casing vent valves. The salient design features are that the suction and discharge piping are at the top of the pump casing, and the suction piping is in communication with either the Refueling Water Storage Tank (RWST) or the Volume Control Tank (VCT). Both these sources provide a net positive suction pressure for the pumps.

For the RH subsystem in operation during shutdown cooling, the piping which is excluded from manual venting is subjected to pressures approximately 360 psia and flows which vary from approximately 1000 gpm to 3000 gpm.

G. IMPACT OF THE PROPOSED CHANGE

The changes proposed in this request will provide continued confidence that unacceptable accumulations of gases will not occur, and align the surveillance requirements with the designed configuration of the ECCS piping. Additionally, it will preclude an obvious safety concern by exempting piping in communication with operating systems from this manual venting.

H. SCHEDULE REQUIREMENTS

ComEd requests that these proposed changes be approved on an emergency basis. Approval of this amendment is necessary to support the restart of Braidwood Unit 1. The unit is currently in Mode 3, and prepared to enter Mode 2 for startup physics testing following refueling activities. As provided in 10CFR 50.90, an emergency situation exists in that failure to act on this request in a timely manner will prevent resumption of power operation, and result in the unit being returned to Mode 5, with the accompanying unnecessary thermal cycle on the unit. The circumstances could not have been foreseen and timely application made because Braidwood considered itself in compliance with the requirement by crediting the dynamic venting action of the system in operation as meeting the requirement to ensure the ECCS piping is full of water. For the piping not directly in the flowpath, gas accumulation was judged to be not credible due to the pressure prevalent in the piping. The idle centrifugal CV pump was considered to be self-venting due to the system design and piping configuration. It was identified to Braidwood on May 22, 1997 that it's position with respect to meeting the surveillance requirement was not in literal compliance with the Technical Specification wording. As such, the opportunity to make timely application did not exist. ComEd also requests that these changes be made effective immediately upon issuance, as the current surveillances being performed will ensure compliance with the revised requirements.

ATTACHMENT B

MARKED UP PAGES FOR
PROPOSED CHANGES TO APPENDIX A
TECHNICAL SPECIFICATIONS OF
FACILITY OPERATING LICENSE NPF-72

BRAIDWOOD STATION UNIT 1
REVISED PAGES:

3/4 5-4a (new page for Unit 1)
3/4 5-4b (applicable to Unit 2)
B 3/4 5-2