



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

April 20, 1989

Dr. Thomas E. Murley
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Document Control Desk

Subject: Byron Station Units 1 and 2
Braidwood Station Units 1 and 2
Application for Amendment to Facility
Operating Licenses NPF-37/66 & NPF-72/77
NRC Docket Nos. 50-454/455 & 456/457

Dear Dr. Murley:

Pursuant to 10 CFR 50.90, Commonwealth Edison proposes to amend Appendix A, Technical Specifications of Facility Operating Licenses NPF-37 & 66/NPF-72 & 77 for Byron/Braidwood Stations. The proposed amendment revises Specification 3/4.6.3, Containment Isolation Valves, to delete the requirement for type C leakage testing for specified Steam Generator blowdown isolation valves and to insert a requirement for the type C leakage test for the 1/2 SI8968 safety injection valves.

The description and bases of the proposed changes are contained in Attachment A. The revised Technical Specification pages are contained in Attachment B.

The proposed changes have been reviewed and approved by both on-site and off-site review in accordance with Commonwealth Edison procedures and Technical Specifications. Commonwealth Edison has reviewed this proposed amendment in accordance with 10 CFR 50.92(c) and has determined that no significant hazards consideration exists. This evaluation is documented in Attachment C. An Environmental Assessment has been performed and is included in Attachment D.

Commonwealth Edison requests approval of this proposed amendment by September 1, 1990, in support of the second refueling outage for Byron Unit 2.

9004260228 900420
PDR ADOCK 05000454
P FDC

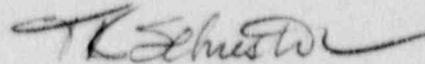
A017
1/1

April 20, 1990

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

Please direct any questions you may have concerning this matter to this office.

Very truly yours,



T. K. Schuster
Nuclear Licensing Administrator

/scl:0181T:17-18

Attachments: A) Description and Bases of the Proposed Changes
B) Proposed Technical Specification Changes
C) Evaluation of Significant Hazards Consideration
D) Environmental Assessment Statement Applicability Review

cc: Resident Inspector - Byron
Resident Inspector - Braidwood
P.C. Shemanski - NRR
S.P. Sands - NRR
Regional Administrator - Region III
Office Of Nuclear Facility - IDNS

ATTACHMENT A

DESCRIPTION AND BASES OF THE PROPOSED CHANGES

DESCRIPTION

The proposed changes to Technical Specification 3/4.6.3, Containment Isolation Valves, specifically Table 3.6-1, pp. 3/4 6-18 and 3/4 6-24, delete the requirement for type C leakage testing on Steam Generator Blowdown valves SD002A through H and SD005A through D, and add the requirement for type C testing for Safety Injection valve SI8968. The first proposed change is accomplished by the inclusion of an asterisk ("*") after each valve number, which references the statement "* Not subject to Type C leakage tests.". The second proposed change corrects an editorial error by removing the "*" placed after the "SI8968" valve, since type C testing is required for SI8968 and has always been done despite the referenced "*" placed by the valve.

BASES OF THE PROPOSED CHANGES

The bases for containment isolation valves Technical Specification 3/4.6.3 is that "the operability of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment." (Technical Specification 3/4.6.3 Bases, page B 3/4 6-4). The containment isolation system is designed to be consistent with the requirements of GDC 54 through 57 of Appendix A to 10CFR Part 50. Containment isolation times are also specified for the isolation valves designed to automatically close. This "ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analysis for a LOCA" as stated on page B 3/4 6-4.

Technical Specification 3/4.6.1.1, Containment Integrity, and 3/4.6.1.2, Containment Leakage, (see bases on page B 3/4 6-1) "ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leakage rates assumed in the safety analyses" and "that the total containment leakage volume will not exceed the value assumed in the accident analyses at the peak accident pressure, Pa" respectively. The type B and C leakage testing required for the containment isolation valves (that meet the criteria per 10CFR50 Appendix J and are listed in Technical Specification 3/4.6.3), ensures that containment leakage is within limits. As a result, containment integrity will be maintained in the event of an accident as outlined in the UFSAR.

In the event of a steam generator tube rupture with some leakage past the SD valves, there would be no effect on the radiological release in the analysis since the most conservative assumption of no blowdown was used to maximize the radioactive isotopes in the steam generator.

ATTACHMENT A (CONT)

The Steam Generator (SG) Blowdown lines transfer secondary side water to the SG Blowdown System (SD) for cleanup. The SG Blowdown System lines are neither a part of the Reactor Coolant System (RCS) pressure boundary nor do they open directly to the containment atmosphere under post-LOCA conditions. The intent of requiring the autoclosure of the SD valves on a containment isolation signal is to conserve the SG secondary side mass (heat sink) in the event of an accident and a phase A initiation. A future modification will add auto-closure of the SD valves on a Lo-2 SG level for the same reason, to conserve mass. The valves are not relied upon to perform a containment isolation function as described per the Technical Specification 3/4.6.3 bases, and therefore, Appendix J of 10CFR50 does not require that they be tested for type C leakage. For the same reason, the main steam isolation valves and the feedwater and auxiliary feedwater valves do not require type C testing. This was previously agreed upon and is reflected in the original Technical Specifications.

Though the SD valves do not fall into 10CFR50 Appendix J item II.H categories 1, 2, and 4 of type C testing requirements criteria for containment isolation valves, the SD valves might be used and operated intermittently under post-accident conditions (category 3 of type C testing requirement criteria for containment isolation valves). This intermittent usage would include (1) sampling SG under post-accident conditions, and (2) RCS cooldown in the event no other alternative is available.

Neither of these uses are required for the mitigation of any accident analyzed in the update Final Safety Analysis Report (UFSAR). In the event that the valves are operated intermittently under post-accident conditions, the systems that they supply flow to are designed to handle post-accident secondary water. These systems are the High Radiation Sampling System (HRSS) and the SD system via a blowdown condenser, a hotwell tank, pumps, and the blowdown demineralizer system. Processing of the blowdown would be a monitored activity and radiation monitoring on the outlet of the blowdown demineralizers would alert the operators to abnormal conditions. SG blowdown would not be initiated in the event of an accident until samples of the secondary system activity were taken and an isotopic analysis performed. This would ensure that there would be no significant radiological concerns in establishing SG blowdown. In the event that the blowdown lines needed to be isolated during sampling or blowdown, manual isolation valves in series with the SD valves would be available. The SD piping is category I safety class B up to and including the SD isolation valves. It is for the above reasons that the SD valves do not fall into any of the four (4) criteria for type C testing requirements per Appendix J item II.H of 10CFR Part 50.

The SD valves will still be functionally tested per Technical Specification 3/4.6.3 and required to be operable, in that stroke time limits and autoclosure on initiation of a phase A signal will still be required.

Other licensee's Technical Specifications do not require type C testing for SG Blowdown valves. In particular, Comanche Peak cites the basis for their exclusion as NUREG 0800 6.2.4.II.6.o, which describes a closed system in containment as qualifying for a containment isolation. This information is being provided as a reference since the Byron/Braidwood SG Secondary is also considered a closed system. For the reasons previously stated above, the SG Blowdown valves are exempt from type C testing as required for particular containment isolation valves. The description and analysis above supports the proposed change that deletes the type C testing requirement for the SD valves.

ATTACHMENT A (CONT)

The deletion of an "*" to indicate that the SI8968 valves do require a type C test corrects an error either typographical or editorial in nature. By deleting the "*" an additional requirement is being added to the Technical Specification. Type C testing has always been required for valves SI8968 per 10CFR50 Appendix J and has always been done. With the proposed change, the Technical Specification will be consistent with the requirement for type C testing for SI8968 valves.

The proposed changes will more accurately reflect the testing requirements for the SD valves while better demonstrating overall containment isolation effectiveness by the deletion of type C testing for valves where this type of testing is not required. The editorial change corrects an error in Technical Specification 3/4.6.3 whereby the actual testing requirement of valves already subjected to type C testing will be correctly indicated.