



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

March 11, 1994

Mr. William T. Russell, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Quad Cities Station Units 1 and 2
Application for Amendments to Facility Operating
Licenses DPR-29 and DPR-30
Appendix A, Technical Specifications
Snubber Visual Inspection Intervals
NRC Docket Nos. 50-254 and 50-265

- References:
1. Generic Letter 84-13, "Technical Specification for Snubbers", dated May 3, 1984.
 2. Generic Letter 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions", dated December 11, 1990.

Mr. Russell:

In accordance with 10 CFR 50.90, Commonwealth Edison (CECo) proposes to amend Appendix A, Technical Specifications, of Facility Operating Licenses DPR-29 and DPR-30. The proposed amendment requests changes to Technical Specification Limiting Conditions of Operation (LCO) and Surveillance Requirements 3.6.I and 4.6.I, which describe snubber visual inspection intervals and corrective actions.

This proposed Technical Specification amendment will provide surveillance requirements for new hydraulic snubbers, which will be installed on the Main Steam Lines (MSLs) during the Unit 1 refuel outage (Q1R13). This outage is scheduled to begin on March 13, 1994 and end on July 3, 1994. These snubbers will also be installed on Unit 2 during the Unit 2 refuel outage (Q2R13) currently scheduled for the first quarter of 1995.

The installation of the hydraulic snubbers will prevent MSL snubber failures and address vibration concerns associated with the electromatic relief valves (ERVs).

The amendment request would change the Snubber Visual Inspection Intervals and Corrective Actions in 3.6.I and 4.6.I to the format and content of the BWR Standardized Technical Specifications (STS), as revised by the provisions of Generic Letter (GL) 84-13 "Technical Specification for Snubbers", dated May 3, 1984 and GL 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions", dated December 11, 1990 (References 1. and 2.).

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The amendment request is subdivided as follows:

1. Attachment A provides a description and safety analysis of the proposed changes to the Technical Specifications.
2. Attachment B provides marked-up and retyped Technical Specification pages.
3. Attachment C describes CECo's evaluation performed in accordance with 10CFR50.92(c), which confirms that no significant hazards consideration is involved.
4. Attachment D provides the Environmental Assessment.

This proposed amendment has been reviewed and approved by both CECo On-Site and Off-Site Review and the Quad Cities Plant Operating Review Committee in accordance with Commonwealth Edison procedure.

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

Commonwealth Edison requests review and approval of this proposed Technical Specification amendment by July 3, 1994, to support the start-up of Quad Cities Station Unit 1 following the thirteenth refuel outage.

To the best of my knowledge and belief, the statements contained above are true and correct. In some respects, these statements are not based on my personnel knowledge, but upon information furnished by other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

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



Respectfully,

A handwritten signature in dark ink, appearing to read "John L. Schrage".

John L. Schrage
Nuclear Licensing Administrator

Mary Jo Yack 3/11/94

Attachments:

- A. Description and Safety Evaluation of the Proposed Changes
- B. Marked-up and Retyped Technical Specification Pages
- C. Evaluation of Significant Hazards Consideration
- D. Environmental Assessment

cc: J.B. Martin, Regional Administrator - RIII
C. Miller, Senior Resident Inspector - QCNPS
C.P. Patel, Project Manager - NRR
Office of Nuclear Safety - IDNS

ATTACHMENT A

DESCRIPTION OF SAFETY ANALYSIS OF THE PROPOSED CHANGES

A. DESCRIPTION OF THE PROPOSED CHANGE

The proposed Technical Specification Amendment would change the Snubber Visual Inspection Intervals and Corrective Actions, contained in Surveillance Requirement 3.6.1 and 4.6.1, to the content of the BWR Standardized Technical Specifications (STS), as revised by the provisions of Generic Letter (GL) 84-13 "Technical Specification for Snubbers", dated May 3, 1984 and GL 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions", dated December 11, 1990 (References 1. and 2.).

B. DESCRIPTION OF THE CURRENT REQUIREMENT

The current Technical Specification Surveillance 4.6.1 describes the surveillance requirements for the augmented inservice inspection program for snubbers.

Section 3.6.1/4.6.1 describes the method by which visual inspection intervals are determined and defines the visual inspection acceptance criteria to which the snubber surveillances are performed. The current visual inspection schedule is based on the number of inoperable snubbers found during the previous visual inspection and assumes that refueling intervals will not exceed 18 months. Depending on the number of inoperable snubbers found per inspection period and the previous occurrences, the inspection interval may change.

C. BASES FOR THE CURRENT REQUIREMENT

The visual inspection frequency is based upon maintaining a constant level of snubber protection to each safety-related system. Therefore, the required inspection interval varies inversely with the observed snubber failures on a given system and is determined by the number of inoperable snubbers found during an inspection of each system. In order to establish the inspection frequency for each type of snubber on a safety-related system, it was assumed that the frequency of snubber failures and initiating events is constant with time and that the failure of any snubber on that system could cause the system to be unprotected and to result in failure of the system during an assumed initiating event. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

The acceptance criteria are to be used in the visual inspection to determine operability of the snubbers. For example, if a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable and shall not be determined operable via functional testing.

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D. DESCRIPTION OF THE NEED FOR AMENDING THE TECHNICAL SPECIFICATIONS

In order to prevent Main Steam Line (MSL) snubber failures and address vibration concerns associated with the electromechanical relief valves, Commonwealth Edison will be replacing the current mechanical snubbers with hydraulic snubbers. The hydraulic design will provide a dampening effect for the MSLs. The installation of the hydraulic snubbers will require a license amendment to add the functional testing and acceptance criteria for hydraulic snubbers to the Technical Specifications.

In addition to the need to incorporate hydraulic snubber functional testing and acceptance criteria, the current Technical Specification (3.6.1/4.6.1) for the snubber visual inspection schedule could become overly restrictive, requiring plant shutdowns due to increased inspection frequencies as well as a significant increase in radiological exposure to plant personnel. Generic Letter (GL) 90-09 presents alternative requirements for snubber visual inspection intervals and corrective actions. These alternative requirements utilize the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of the various snubber populations or categories to determine the snubber visual inspection frequency. This will allow inspections and corrective actions to coincide with plant outages. The alternative requirement in GL 90-09, to extend the visual inspection surveillance interval to up to 48 months, would reduce the resources spent on inspections and reduce radiological exposure to plant personnel.

E. DESCRIPTION OF THE AMENDED TECHNICAL SPECIFICATION REQUIREMENT

The proposed changes adopt the format and content of the BWR-STS as modified by GL 84-13 and GL 90-09. GL 84-13 provides guidance for deletion of the Snubber Tables from the Technical Specifications. These changes were previously approved for Facility Operating Licenses DPR-29 and DPR-30 in Amendments 115 and 111 (Amendments and NRC SER dated February 22, 1989).

GL 90-09 modifies the BWR-STS by recommending changes to the text of the surveillance requirements for Visual Inspections and Visual Inspection Acceptance Criteria. As stated in the Generic Letter, the new visual inspection schedule maintains the same confidence level as the existing schedule. The proposed inspection schedule is based on the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of various snubber populations or categories. The snubbers may be categorized, based on their accessibility during power operation, as accessible or inaccessible. These snubbers may be examined separately or jointly. Quad Cities will make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category. A snubber is considered unacceptable if it fails to meet the acceptance criteria of the visual inspection.

The inspection schedule provided in the Generic Letter is based on a fuel cycle of up to 24 months and may be as long as two fuel cycles, or 48 months for plants with other fuel cycles, depending on the number of unacceptable snubbers found during the previous visual inspection. Quad Cities currently has an 18 month fuel cycle and

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therefore proposes to incorporate the 48 month option, which would allow up to a three cycle frequency depending on the number of unacceptable snubbers found during the previous inspection period. If a review and evaluation can not justify continued operation with an unacceptable snubber, the snubber will be declared inoperable and the action requirements will be met. To determine the next surveillance interval, an unacceptable snubber may be reclassified as acceptable if it can be demonstrated that the snubber is operable in its as-found condition by performance of a functional test and if it satisfies the acceptance criteria for functional testing.

All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. For instance, if a fluid port of a hydraulic snubber is found to be uncovered, the snubber is to be declared unacceptable and shall not be determined acceptable by functional testing.

The next visual inspection interval may be twice, the same, or reduced to as much as two-thirds of the previous inspection interval. The inspection interval depends on the number of unacceptable snubbers found in proportion to the size of the population or category for each type of snubber included in the previous inspection interval.

Proposed Table 4.6-3, "Snubber Visual Inspection Criteria," duplicates Table 4.7-2 in enclosure B of the Generic Letter. As stated in the notes following the table, interpolation is permitted between population or category sizes and the number of unacceptable snubbers. Interpolation is conservative, because any rounding is done to the next lower integer for the value of unacceptable snubbers in Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation. If the number of unacceptable snubbers is equal to or less than the number in Column A of Table 4.6-3, the next inspection interval may be twice the previous interval but not greater than 48 months. If the number of unacceptable snubbers is equal to or less than the number in Column B of Table 4.6-3, the next inspection interval shall be the same as the previous interval. If the number of unacceptable snubbers is equal to or greater than the number in Column C of Table 4.6-3, the next inspection interval shall be two-thirds of the previous interval.

However, if the number of unacceptable snubbers is less than the number in Column C, but greater than the number in Column B, the next interval shall be reduced proportionately by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C. The provisions of Specification 1.0.DD are applicable for all inspection intervals up to and including 48 months. The flexibility provided by 1.0.DD allows reasonable planning of unit outages and surveillance scheduling.

F. BASES FOR THE AMENDED TECHNICAL SPECIFICATION REQUEST

The Bases for Section 3.6.1/4.6.1 of the Technical Specification have been changed to agree with the changes to the specification. The visual inspection frequency will be

ATTACHMENT A (cont.)

based on maintaining a constant level of snubber protection to the safety-related system, as given in Generic Letter 90-09, "Alternative Visual Inspection Intervals and Corrective Actions". Therefore, the new schedule is based on the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of various snubber population or categories.

The new inspection schedule maintains assurance of snubber operability by basing future inspection periods on the number of failures of a given snubber type and manufacturer. As stated in Generic Letter 90-09, the new schedule of inspections maintains the same confidence level as the existing schedule.

G. SCHEDULE

CECo requests that this proposed amendment be approved prior to the end of the Unit 1 thirteenth refuel outage, Q1R13, which is presently scheduled to begin on March 13, 1994, and end on July 3, 1994. It is also requested that this amendment be made effective on the date of issuance for Quad Cities Unit 1, and prior to the end of the thirteenth refuel outage on Unit 2 (Q2R13).