



December 29, 1995

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

Subject: Revision to Inservice Inspection Program Relief Request SR-1

Byron Nuclear Power Station, Units 1 and 2  
Facility Operating Licenses NPF-37 and NPF-66  
NRC Docket Nos. 50-454 and 50-455

References: Attachment 1

Ladies and Gentlemen:

Commonwealth Edison Company (ComEd) proposes to revise Byron Nuclear Power Station, Units 1 and 2 (Byron), First Ten-Year Interval Inservice Inspection (ISI) Program, Relief Request SR-1 pursuant to Title 10, Code of Federal Regulations, Part 50, Section 55a, Paragraph g, Subparagraph iii [10 CFR 50.55a (g)(iii)].

In Reference 1, ComEd submitted the current version of Relief Request SR-1 to the United States Nuclear Regulatory Commission (USNRC) Staff for review and approval. The ISI inspection interval of at least once every 18 months, with a maximum allowable extension not to exceed 25% of the specified inspection interval, was selected to coincide with the snubber visual inspection surveillance interval of Byron Technical Specification (TS) 3/4.7.8, "Snubbers," and the maximum allowable surveillance interval extension permitted by TS 4.0.2, in effect at that time. The USNRC Staff documented their review and approval of Relief Request SR-1 in Reference 4.

Subsequently, ComEd proposed to modify Byron TS 3/4.7.8, "Snubbers," (References 5 and 6) in accordance with USNRC Generic Letter (GL) 90-09 (Reference 2). GL 90-09 allows for a variable snubber visual inspection surveillance interval which is determined by the previous inspection results. The maximum snubber visual

k:\nla\byron\isi\snubbers\submit.wpf.1

9601020232 951229  
PDR ADOCK 05000454  
G PDR

081

A047  
11



December 29, 1995

inspection surveillance interval allowed by GL 90-09 is 48 months. The USNRC Staff documented their review and approval the proposed changes to the Byron TS 3/4.7.8, "Snubbers," in Reference 7.

In order to achieve the potential relaxation in the snubber visual inspection surveillance interval allowed by GL 90-09, the ISI inspection interval must coincide with the current TSs. Accordingly, the primary purpose of this proposed revision to Relief Request SR-1 is to reestablish the coincidence between the required ISI inspection interval and the snubber visual inspection surveillance interval of Byron TS 3/4.7.8, "Snubbers," and the maximum allowable surveillance interval extension permitted by TS 4.0.2, now in effect. Additionally, there are two editorial changes. The first changes the total snubber population for both units due to plant modifications since submittal of the current version of Relief Request SR-1. The second editorial change corrects a grammatical error.

ComEd respectfully requests that the USNRC Staff review and approve the attached relief request no later than March 1, 1996, so that ComEd may take advantage of the requested relief during the Byron, Unit 1, Cycle 7, Refuel Outage (B1R07) currently scheduled to begin March 29, 1996. ComEd apologizes for the expedited nature of this request.

Please address any comments or questions regarding this matter to this office.

Very truly yours,



Harold D. Pontious, Jr.  
Nuclear Licensing Administrator

Attachment 1: References

Attachment 2: Relief Request SR-1

cc: H. J. Miller, Regional Administrator - RIII  
G. F. Dick Jr., Byron Project Manager - NRR  
H. Peterson, Senior Resident Inspector - Byron  
Office of Nuclear Facility Safety - IDNS



# Attachment 1

## References

1. S. C. Hunsader (ComEd) letter to Dr. Thomas E. Murley (USNRC), "Byron Station, Units 1 and 2, Inservice Inspection (ISI) Program," dated September 10, 1990
2. James G. Partlow (USNRC) letter to All Light-Water Reactor Licensees and Applicants, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions (Generic Letter 90-09)," dated December 11, 1990
3. Idaho National Engineering Laboratory Technical Evaluation Report EGG-MS-9117, "Technical Evaluation Report on the First 10-Year Interval Inservice Inspection Program Plan: Commonwealth Edison Company, Byron Nuclear Power Station, Units 1 and 2, Docket Numbers 50-454 and 50-455," dated August 1991
4. Richard J. Barrett (USNRC) letter to Thomas J. Kovach (ComEd), "Safety Evaluation of the First Ten-Year Interval Inservice Inspection Program and Associated Requests for Relief for Byron Nuclear Power Station, Units 1 and 2 (TAC Nos. 81923 and 63261)," dated December 6, 1991
5. Denise M. Saccomando (ComEd) letter to Dr. Thomas E. Murley (USNRC), "Application for Amendment to Facility Operating Licenses-Plant Snubber System: Byron Station, Units 1 and 2, NPF-37/66; NRC Docket Nos. 50-454/455 and Braidwood Station, Units 1 and 2, NPF-72/77; NRC Docket Nos. 50-456/457," dated August 27, 1993
6. Joseph A. Bauer (ComEd) letter to Dr. Thomas E. Murley (USNRC), "Correction to Byron/Braidwood Proposed License Amendment Regarding Implementation of Generic Letter 90-09, 'Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions,'" dated February 21, 1994
7. George F. Dick, Jr. (USNRC) letter to D. L. Farrar (ComEd), "Issuance of Amendments (TAC Nos. M87748, M87749, M87750 and M87751)," dated March 11, 1994



## **Attachment 2**

**Byron Nuclear Power Station, Units 1 and 2  
Inservice Inspection Program  
First Ten Year Inspection Interval**

**Relief Request SR-1**



Relief Request SR-1

1. SYSTEM: AB, CV, DO, FW, MS, RC, RH, RY, SD
2. NUMBER OF ITEMS: All non-exempt portions of safety-related snubbers in the following systems:

<u>System</u>	<u>Snubbers Attached to Insulated Pipe</u>	
	Unit 1	Unit 2
AB	1	0
CV	27	40
DO	6	12
FW	2	23
MS	4	12
RC	49	63
RH	5	17
RY	19	14
SD	2	13
Total snubbers on insulated lines	115	194
Total snubber population	289	298

Table showing the number of snubbers on insulated lines vs. the total number of snubbers in the population. The above numbers will vary with time as a result of snubber reduction and other plant modifications.

3. ASME CODE CLASS: 1, 2, and 3.
4. ASME SECTION XI CODE REQUIREMENT: The component support examination boundaries are defined by IWF-1300 and Figure 1300-1. Per IWF-1300e, the IWF support exam boundary for snubbers which have non-integral attachments extends from the contact surface between the component and the support to the surface of the building structure.
5. BASIS FOR RELIEF: The visual examination of an integral or non-integral pipe attachment is limited by the insulation installed on the piping. It would impose a great deal of hardship in terms of manpower, time, and radiation exposure to remove insulation to visually inspect all snubber pipe clamps particularly if there are alternative methods that provide an equivalent means of determining pipe clamp integrity.



The majority of snubbers are located inside Containment in high radiation areas. Removing insulation on all snubber pipe clamps would require one Health Physics Technician to survey the insulation prior to its removal and then a two man insulator crew to remove the insulation. This would add three people to the customary two man inspection crew, which would more than double the man rem exposures for performing the surveillance.

The proposed alternate exam methods listed in part 6 of the Relief Request enhance the SPPM VT-3/4 inspection procedure. The hands on check combined with the VT-3/4 procedure will insure that snubber pipe clamps are installed and secure on snubbers that can be reached for direct examination. If there are any indications of degradation, the insulation will be removed to allow for a total clamp inspection.

For the snubbers that have pipe clamps completely buried in insulation, the insulation will be removed for a complete inspection. Based on a review of the piping line list and snubber data bases, this condition occurs primarily on PSA-1/4 snubbers attached to 1 inch or less piping covered with 2 inches thick or greater insulation. Insulation removal to inspect these pipe clamps will be accomplished several ways. When these snubbers are removed for functional testing, the insulation will have to be removed to unpin the snubber. The visual inspection of the pipe clamp will be performed at this time. Visuals on pipe clamps will be coordinated with the NDE inspections when insulation removal to access welds also exposes the pipe clamps for inspection. Snubber exams are documented so it can be verified that all snubber pipe clamps completely buried in insulation receive a visual inspection within the ten year interval.

On snubbers that are inaccessible for direct examination, a remote exam will be performed per the SPPM VT-3/4 procedure. This would include snubbers on overhead runs of piping that are out of reach. The number of snubbers in this category represents only about 5% of the snubbers in Units 1 and 2. None of these snubbers have pipe clamps completely buried in insulation. They are not in high traffic areas where typically the most clamp slippage and other damage is experienced. Boric acid spray from valves or flanges is also less likely on the majority of these snubbers. Because they are in relatively safe areas, an indirect inspection verifying no outward indications are present will demonstrate that the pipe clamps are secure. When these snubbers are functionally tested, scaffold will be built to access them. A hands on exam of the pipe clamp will be done at that time. If any of the above conditions are present, scaffold will be built to more thoroughly investigate the indication.



Previous inspection experience has not shown an increasing trend in regard to loose pipe clamps. A review of earlier data indicates that the incidence of loose pipe clamps is rare. The alternate methods proposed in this relief request combined with the commitment to remove insulation on those pipe clamps completely obscured by insulation will provide a complete examination of the entire snubber population in Units 1 and 2. This approach meets the requirements of an alternate inspection and will provide a high degree of confidence that the snubber pipe clamps are in place and secure. By limiting the number of people required to perform the surveillance, the proposed methods will minimize man rem exposures.

The CECO SPPM VT-3/4 procedure allows remote inspections to be performed on snubbers that are out of reach for direct inspection. Scaffolds or man baskets would have to be used to remove insulation on remote snubbers. Extra scaffolds built for snubber pipe clamp insulation removal would increase congestion in containment and increase the amount of material being handled and surveyed during the outage. It would also produce additional DAW and result in more scaffold material acquiring fixed contamination during the outage. It would pose an additional burden on the examination in terms of manpower, time, safety, and radiation exposure. It also defeats the purpose of the remote examination methods allowed in the SPPM.

6. ALTERNATE TEST METHOD: ASME Section XI Code, IWA-2240, allows for alternate examination methods if they provide results that are equivalent to the specified method. In lieu of removing insulation on snubber pipe clamps, the following alternate exam methods will be employed on all snubbers that are accessible for direct examination:

- a. A hands-on inspection of the pipe clamp will be performed to verify the clamp is tight.
- b. Clamp alignment with the load pin axis will be observed to verify alignment is within design tolerances.
- c. The load pin/stud will be inspected to verify its integrity. This will insure that parts are in place and that the pin is tight. If the load pin is obscured by insulation, the insulation will be removed or modified to allow for this inspection.
- d. Insulation will be checked for evidence of damage due to slipped or loose clamps.
- e. If boric acid contamination or corrosion is observed, insulation will be removed to inspect the pipe clamp.



7. JUSTIFICATION: This relief request is intended for non-integral attachments on insulated lines. The Visual inspection of snubbers are performed using the CECO SPPM VT-3/4 procedure. The inspections are performed on all safety related snubbers per Byron Station Technical Specification 3/4.7.8. The frequency is based upon the results from the previous inspection period and may vary from significantly less than 18 months to 48 months  $\pm 25\%$ . Under this procedure, support indications to be observed and documented include the following:

- cracks, pitting
- erosion, corrosion, wear
- loose, missing, damaged parts
- contamination, debris
- weld degradation
- slipped clamps
- arc strikes, weld spatter, paint
- clearances, settings
- condition of spherical bearings

This will eliminate the need for additional scaffolding, which will lower the amount of contaminated material produced during the outage and reduce the traffic and congestion associated with moving scaffolding in and out of Containment. This will promote the efficient and cost effective execution of the visual surveillances.

8. APPLICABLE TIME PERIOD: This request for relief applies for the first ten year interval.

(Final)