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SVP-99-099

May 13, 1999

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

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Request for Inservice Inspection Program Relief Regarding Weld Examination Coverage for Second Inservice Inspection Program Interval

Reference: Letter from J. P. Dimmette, Jr. (ComEd), SVP-99-063, to USNRC, dated April 9, 1999, "Reply to a Notice of Violation NRC Inspection Report Nos. 50-254/98021 and 50-265/98021."

10 CFR 50.55a(g), "Inservice Inspection Requirements," requires Inservice Inspection (ISI) of certain American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel (B&PV) Code Class 1 and 2 components be performed in accordance with Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME Code and applicable addenda, except where alternatives have been authorized or relief has been requested and granted by the NRC as described in the station ISI Program. 10 CFR 50.55a(g)(5)(iii) requires notification of the NRC if conformance with certain code requirements is impractical.

In accordance with 10 CFR 50.55a(g)(5)(iii), Commonwealth Edison (ComEd) Company requests relief from the requirements of 10 CFR 50.55a(g) regarding submittal of relief requests for those welds for which an examination of greater than 90 percent of the weld volume was not achieved during the Second ISI Program Interval, which ended February 17, 1993 for Unit 1 and March 9, 1993 for Unit 2. The attached ISI Program Relief Request provides details for the general relief we are requesting and is being submitted as committed to in the referenced letter. This general relief will only be needed until the end of the Third ISI Program Interval, which covers the period from February 18, 1993 to February 18, 2003 for Unit 1 and from March 10, 1993 to March 10, 2003 for Unit 2, at which time the complete population of welds will have been examined and appropriate specific relief requests will have been submitted.

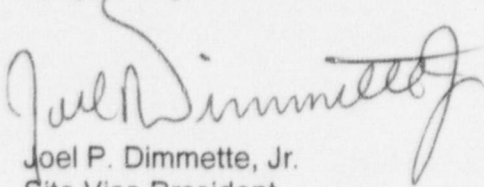
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Should you have any questions concerning this letter, please contact Mr. Wally Beck,
Acting Regulatory Assurance Manager, at (309) 654-2241, extension 3100.

Respectfully,

A handwritten signature in cursive script, appearing to read "Joel P. Dimmette, Jr.", written in dark ink.

Joel P. Dimmette, Jr.
Site Vice President
Quad Cities Nuclear Power Station

Attachment: Relief Request Number CR-31

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station

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COMPONENT IDENTIFICATION

Code Class: 1 and 2

References: Table IWB-2500-1
Table IWC-2500-1

Examination Category: B-A, B-D, B-F, B-H, B-J, B-K-1, B-M-1, B-O
C-A, C-B, C-C, C-F, C-G

Item Number: B1.10 Thru B1.50, B3.90, B3.100, B5.10, B8.10,
B5.11, B5.50, B5.51, B9.10 Thru B9.40, B10.10 Thru
B10.30, B12.30, B12.31, B14.10
C1.10 Thru C1.30, C2.10, C2.20, C3.10, C3.40, C3.70,
C3.100, C5.10 Thru C5.30, C6.10, C6.20

Description: Examination of Class 1 and 2 Welds

Component Numbers: Class 1 and Class 2 Welds

CODE REQUIREMENT

The following are summaries of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BP&V) Code (i.e, the Code) requirements, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1980 Edition, Winter 1980 Addenda, as applicable to examination of Code Class 1 and 2 welds.

Table IWB-2500-1 Examination Categories

For examination categories and items identified above which require surface and/or volumes of the regions described in applicable Figure(s) for welds, the required examinations typically include, "...essentially 100% of the weld length."

Table IWC-2500-1 Examination Categories

For examination categories and items identified above which require surface and/or volumes of the regions described in applicable Figure(s) for welds, the required examinations typically include, "...essentially 100% of the weld length."

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BASIS FOR RELIEF

10 CFR 50.55a(g), "Inservice Inspection Requirements," requires Inservice Inspection (ISI) of certain Code Class 1 and 2 components be performed in accordance with Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the Code and applicable addenda, except where alternatives have been authorized or relief has been requested and granted by the NRC as described in the station ISI Program. 10 CFR 50.55a(g)(5)(iii) requires notification of the NRC if conformance with certain code requirements is impractical.

In accordance with 10 CFR 50.55a(g)(5)(iii), Commonwealth Edison (ComEd) Company requests relief from the requirements of 10 CFR 50.55a(g) regarding submittal of relief requests for those welds for which an examination of greater than 90 percent of the weld volume was not achieved during the Second ISI Program Interval, which ended February 17, 1993 for Unit 1 and March 9, 1993 for Unit 2. Relief is requested on the basis that conformance with the Code requirements described above is impractical.

We misinterpreted the applicability of 10 CFR 50.55a(g) that requires relief be obtained for ISI Program Non-Destructive Examinations that accomplish less than essentially 100 percent coverage. The term essentially 100 percent has been defined as greater than 90 percent by ASME Code Case N-460. Our interpretation of the requirements resulted in the conclusion that relief was not required, on the basis that the examinations were performed to the extent practical within the constraints of design, geometry, and configuration.

The issuance of NRC Information Notice 98-42, "Implementation of 10 CFR 50.55a(g) Inservice Inspection Requirements," resulted in our re-review of the issue and discovery of the misinterpretation. As a result of this misinterpretation, specific relief requests were not submitted for weld examinations performed during the Second ISI Program Interval where limited examination coverage was obtained. In general, the same components are examined in each ISI Program Interval. The examinations conducted, confirmed satisfactory results evidencing no unacceptable flaws present, even though greater than 90 percent coverage was not attained for all welds examined in either the Second or Third Ten year ISI Program Intervals. We have concluded that if any active degradation mechanisms were to exist in the subject welds, those degradations would have been identified in the examinations performed. Since the examination results concluded that there are no unacceptable flaws, the underlying objectives of the requirements have been met.

It is an unnecessary hardship to perform a review of the Second ISI Program Interval weld examinations to identify and calculate weld examination coverage of less than 90 percent, due to several factors. The Second ISI Program Interval ended six years ago, so the records associated with the interval, although accessible, are considered historical documents. The review of the historical examination records, calculation of

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percent coverage, and preparation and submittal of relief requests for intervals, which are closed, would place a significant burden on engineering resources with no corresponding increase in quality or safety. The task would entail recovery of in excess of five hundred records from the archives, and the review of each individual examination data sheet to determine candidate welds for further detailed investigation. As an example, a similar task for 55 percent of the Class 1 and Class 2 components examined to date in the Third Ten-year ISI Program Interval has resulted in an expenditure of in excess of 2000 person-hours to review 327 examination records and calculate the applicable percent coverage obtained.

PROPOSED ALTERNATE PROVISIONS

Based on the hardship involved with and the impracticality of performing a review of the Second ISI Program Interval, and the fact that the examinations of the same welds over the course of the Third ISI Program Interval is more than halfway complete, no alternate provisions are proposed for this relief request.

However, as committed to in our letter, SVP-99-063, dated April 19, 1999, we will submit relief requests by October 30, 1999, for the first period of the Third ISI Program Interval and for the two refueling outages in the second period of the Third Interval in accordance with 10 CFR 50.55a(g) requirements regarding the examination of components where the coverage achieved was less than or equal to 90 percent. The relief requests for the remaining portions of the Third ISI Program Interval will be submitted in accordance with 10 CFR 50.55a(g)(5)(iv).

APPLICABLE TIME PERIOD

Relief is requested for weld examination coverage for the Second Ten-year ISI Program Interval for Quad Cities Nuclear Power Station, Units 1 and 2, which ended February 17, 1993, and March 9, 1993, respectively.

The general relief will only be needed until the end of the Third ISI Program Interval, at which time the complete population of welds will have been examined and appropriate specific relief requests will have been submitted.