

October 16, 1996

Ms. Irene Johnson, Acting Manager
Nuclear Regulatory Services
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING SECOND TEN-YEAR
INSERVICE INSPECTION PROGRAM - BYRON STATION, UNITS 1 AND 2
(TAC NOS. M94830 AND M94831)

Dear Ms. Johnson:

On February 23, 1996, Commonwealth Edison Company (ComEd) submitted its second ten-year Inservice Inspection Program and associated relief requests. In its submittal, ComEd requested expedited review for Relief Requests 12R-11 and 12R-12. Relief Request 12R-11 was subsequently withdrawn by ComEd on June 12, 1996; we authorized Relief Request 12R-12 on July 22, 1996.

On June 13, 1996, we issued a Request for Additional Information (RAI) concerning the remaining relief requests. ComEd provided its response on August 12, 1996. During the continuation of our review of the initial submittal and ComEd's August 12, 1996 submittal, we have identified the need for further information, as discussed in the enclosed RAI, before we can complete our review. Please contact me with your estimate of the time required to provide a formal response.

Sincerely,

Original signed by:

George F. Dick, Jr., Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455

Enclosure: RAI

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Byron Station
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REQUEST FOR ADDITIONAL INFORMATION
SECOND TEN-YEAR INSERVICE INSPECTION INTERVAL
COMMONWEALTH EDISON COMPANY
BYRON STATION, UNITS 1 AND 2
DOCKET NOS. STN 50-454 AND STN 50-455

- 1) **Unapproved Code cases:** In accordance with 10 CFR 50.55a(c)(3), 10 CFR 50.55a(d)(2), and 10 CFR 50.55a(e)(2), American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) cases may be used as alternatives to Code requirements. Code cases that the NRC has approved for use are listed in Regulatory Guide (RG) 1.147, *Inservice Inspection Code Case Acceptability*, with any additional conditions deemed necessary by the NRC. Code cases not referenced in RG 1.147 may be adopted only if authorized by the NRC on a case-by-case basis. In some cases, use of unapproved Code cases may be acceptable for use when certain conditions are included. To ensure consistent implementation, licensees proposing the use of currently unapproved Code case(s), must commit to such conditions, if applicable.

In Relief I2R-10, the licensee has proposed to implement the alternatives contained in ASME Code Case N-522, *Pressure Testing of Containment Penetration Piping*. This Code case may be considered acceptable for use with the following conditions:

- a) The leak test is performed at the peak calculated containment design pressure; and
- b) a test procedure is used that provides for detection and location of through-wall leakages in the pipe segments that are being tested.

In Request for Relief I2R-17, the use of Code Case N-509, *Alternate Rules for the Selection and Examination of Class 1, 2, and 3 Integrally Welded Attachments*, is proposed. This Code case may be considered acceptable for use provided that a minimum of 10 percent of the total number of integral attachments in all Class 1, 2, and 3 systems are examined.

To find the proposed alternatives to the Code requirements acceptable for use, incorporation of the above conditions into the applicable request for relief is necessary. Confirm that the conditions stated above will be met.

- 2) In Request for Relief I2R-03 relief is requested from performing the Code-required volumetric examination of the pressurizer surge nozzle-to-vessel weld and inside radius section. This request was evaluated and authorized for the first 10-year interval provided that the

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Code-required examination was performed if the insulation was removed for any reason. To find this proposed alternative to the Code requirements acceptable for use for the second 10-year interval, incorporation of the above condition into the request for relief is necessary. Confirm that the condition stated above will be met.

- 3) **Request for Relief I2R-05:** In lieu of performing the 100 percent volumetric examination as required by the Code, the licensee requested to perform a "best effort" ultrasonic examination on the residual heat removal heat exchanger nozzle-to-shell welds. In the staff's Request for Additional Information dated June 13, 1996, the licensee was requested to provide an estimate of the Code-required volume that could be examined with the best-effort ultrasonic examination. This information was not provided in the August 12, 1996, response. Provide an estimate of the coverage that can be achieved with the best effort ultrasonic examination.

As a result of indications found in the subject welds during the first 10-year interval, the licensee submitted a request for relief (December 12, 1995) from the successive examination requirements of the Code. This request, which was subsequently evaluated in the staff's Safety Evaluation dated February 29, 1996, included the performance of a surface examination once each period as the proposed alternative. Will the welds included in I2R-05 continue to receive surface examinations during the second 10-year interval?

- 4) **In Request for Relief I2R-01,** relief is requested from two separate requirements for reactor vessel shell Weld RPVC-WR29 due to physical obstructions that limit the volumetric examination to less than 90 percent of the required volume - (1) the period volumetric examination required by Section XI for the second 10-year interval, and (2) the augmented volumetric examination required by 10 CFR 50.55a(g)(6)(ii) that should have been performed during the first 10-year interval.

Regarding the augmented examination, the regulations state that licensees that can not completely satisfy the examination requirements of 10 CFR 50.55a(g)(6)(ii)(A), must submit information supporting that determination and must propose an alternative that would provide an acceptable level of quality and safety. This alternative may be used when authorized by the NRC staff. In accordance with 10 CFR 50.55a(a)(3), alternatives to the requirements of 10 CFR 50.55a(g)(6)(ii)(A) may be used when authorized by the NRC staff if the licensee demonstrates that either (i) the proposed alternative provides an acceptable level of quality and safety, or (ii) that the examination requirements would result in a hardship without a compensating increase in quality and safety.

Request for Relief I2R-01 can not be evaluated for the Section XI requirements in the second 10-year interval until the augmented

Request for Relief I2R-01 can not be evaluated for the Section XI requirements in the second 10-year interval until the augmented volumetric examination requirements of the regulations are satisfied for the first interval. To satisfy the regulations, the licensee should provide a separate submittal containing the required proposed alternative. The staff will evaluate the proposed alternative to verify that examination coverage has been maximized from both the vessel interior and exterior. To help the staff complete the evaluation and close out this issue, provide a technical discussion describing how examination coverage was maximized (including the possibility of, or the burden associated with, performing an examination from the vessel exterior). Once the augmented volumetric examination requirements are satisfied for the first interval, the limited Code examinations for the second interval can be addressed by revising and resubmitting Request for Relief I2R-01.