



September 11, 1997

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Braidwood Nuclear Power Station Units 1 and 2
Byron Nuclear Power Station Units 1 and 2
Dresden Nuclear Power Station Units 2 and 3
Quad Cities Nuclear Power Station Units 1 and 2

Response to Request for Additional Information Regarding Relief
Requests from ASME Section XI, 1992 Edition with the 1992
Addenda, Article IWE-4000

NRC Docket Nos. 50-454 and 50-455
NRC Docket Nos. 50-456 and 50-457
NRC Docket Nos. 50-237 and 50-249
NRC Docket Nos. 50-254 and 50-265

- Reference:
1. Letter from E. Kraft (ComEd) to NRC transmitting Relief Request From Immediate Compliance with 10 CFR 50.55a for the Repair and Replacement Activities for Containment, dated February 18, 1997
 2. Letter from J. Hosmer (ComEd) to NRC transmitting Relief Requests From ASME Section XI, 1992 Edition with the 1992 Addenda, Article IWE-4000, dated April 10, 1997
 3. NRC Letter, "Request for Additional Information Braidwood, Units 1 and 2; Byron, Units 1 and 2; Dresden, Units 2 and 3; Quad Cities, Units 1 and 2, dated May 28, 1997

References 1 and 2 requested relief from immediate compliance with the applicable repair and replacement requirements of Subsections IWA, IWE and IWL. Reference 3 requested additional information regarding this relief request. Attached are the responses and revised proposed Relief Requests for your review and approval.

If there are any questions concerning this matter, please contact Marcia Lesniak at 630/663-6484.

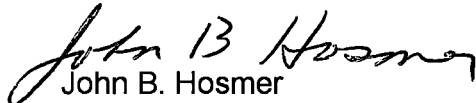
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Respectfully,


John B. Hosmer
Engineering Vice President

Attachments

cc: A. Beach, Regional Administrator - RIII
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G. Dick, Byron/Braidwood Project Manager - NRR
J. Stang, Dresden Project Manager - NRR
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Office of Nuclear Facility Safety - IDNS

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION
RELIEF REQUESTS FROM IMMEDIATE COMPLIANCE OF 10 CFR 50.55A
FOR REPAIR AND REPLACEMENT ACTIVITIES FOR CONTAINMENTS
BYRON, UNITS 1 AND 2
BRAIDWOOD, UNITS 1 AND 2

1. **PROVIDE AN INTEGRATED SUMMARY FOR EACH UNIT OR EACH PLANT (IF THE REQUIREMENTS ARE IDENTICAL) DESCRIBING THE REQUIREMENTS AND PROCEDURES USED FOR REPAIR AND REPLACEMENT (R/R) ACTIVITIES FOR THE CONTAINMENT POST-TENSIONING SYSTEM, CONCRETE SURFACES, AND LINER PLATES OF THE PRESTRESSED CONCRETE CONTAINMENTS AT BRAIDWOOD AND BYRON DURING THE RELIEF PERIOD.**

During the relief period, any Repair/Replacement (R/R) activities conducted on Class MC and CC pressure retaining components or their integral attachments at Byron and Braidwood Units 1 and 2 will be controlled using an approved Nuclear Work Request in accordance with Byron Administrative Procedure BAP 1600-1 and Braidwood Administrative BwAP 1600-1, *Action/Work Request Processing Procedure*. These Nuclear Work Requests will be classified as Nuclear Safety Related and, thus, their preparation, review approval, implementation and associated post R/R testing is governed by the ComEd Quality Assurance Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2.3.1). The ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Currently, ComEd is working to minor revision 65f, dated July 18, 1997 (Minor revision do not require NRC review and approval since they do not involve a reduction in commitments). In addition, the containment structure integrity is verified by periodic pressure tests in accordance with Appendix J and the surveillance of the post-tensioning system. Post-tensioning system testing and examinations are performed in accordance with Technical Specification required programs, Procedures BVP 200-15 and BwVP-15 *Containment Vessel Tendon Inspection Requirements*, and implementing procedures 1/2BVS 6.1.6.1-1 and BwVS 6.1.6.1-1, *Containment Vessel Tendon Test*, for Byron and Braidwood, respectively, These approved procedures incorporate the requirements of NRC proposed Revision 3 of Regulatory Guide 1.35.

2. **THE REGULATION REQUIRES R/R ACTIVITIES TO BE CONDUCTED ACCORDING TO THE REQUIREMENTS OF ARTICLE IWL-4000, IWL-7000, AND IWE-4000 OF THE 1992 EDITION WITH THE 1992 ADDENDA OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL CODE (CODE). YOU ARE REQUESTING RELIEF FROM THE REQUIREMENTS OF IWE-4000. PLEASE CONFIRM IF YOU ARE COMPLYING WITH THE REQUIREMENTS OF IWL-4000 AND IWL-7000 DURING THE REQUESTED PERIOD OF RELIEF.**

We are not complying with the requirements of IWL-4000 and IWL-7000 during the requested period of relief. In the original submittal relief was requested from IWA-4000, IWE-4000 and IWL-4000. In addition, relief is also requested from IWA-7000, IWE-7000, and IWL-7000, as indicated on the attached relief requests. In the interim, all repair/replacement activities conducted at Byron and Braidwood Stations were done in accordance with the ComEd Quality Assurance Manual, as stated above in the response to Question 1.

3. **NORMALLY, THE STAFF GRANTS RELIEF REQUESTS FOR R/R ACTIVITIES FOR NOT MORE THAN 1 YEAR FROM THE EFFECTIVE DATE OF THE RULE (i.e., SEPTEMBER 9, 1996). YOU ARE REQUESTING RELIEF UNTIL DECEMBER 31, 1997. PROVIDE JUSTIFICATION FOR THIS ADDITIONAL DELAY IN IMPLEMENTING THE RULE FOR R/R ACTIVITIES FOR EACH OF THE UNITS AT BRAIDWOOD AND BYRON.**

The request for relief until December 31, 1997 is withdrawn. Alternatively, Byron and Braidwood request relief from the Code requirements for R/R activities conducted on containment post-tensioning system, concrete surfaces, and liner plates of the prestressed concrete containments until September 9, 1997.

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION
RELIEF REQUESTS FROM IMMEDIATE COMPLIANCE OF 10 CFR 50.55A
FOR REPAIR AND REPLACEMENT ACTIVITIES FOR CONTAINMENTS
DRESDEN STATION UNITS 2 AND 3
QUAD CITIES UNITS 1 AND 2

- 1. PROVIDE AN INTEGRATED SUMMARY FOR EACH UNIT OR EACH PLANT (IF THE REQUIREMENTS ARE IDENTICAL) DESCRIBING THE REQUIREMENTS AND PROCEDURES USED FOR REPAIR AND REPLACEMENT (R/R) ACTIVITIES FOR THE DRYWELL, WETWELL TORUS AND VENT SYSTEM OF THE MARK I CONTAINMENTS AT DRESDEN AND QUAD CITIES DURING THE RELIEF PERIOD.**

During the relief period, any Repair/Replacement (R/R) activities conducted on the drywell, wetwell torus and vent system of the Mark I containments at Dresden Station Units 2 and 3 were controlled using approved Nuclear Work Requests in accordance with Dresden Administrative Procedure DAP 15-01, "INITIATING AND PROCESSING A WORK REQUEST" and Quad Cities Administrative Procedure QCAP 2200-02, "WORK CONTROL PROCESS". These Nuclear Work Requests were classified as "Nuclear Safety Related", and thus, their preparation, review, approval, implementation and associated post R/R testing was governed by the ComEd Quality Assurance Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, Subsection 3.1). The ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Additionally, the containment structure integrity is verified by periodic pressure tests in accordance with Appendix J requirements.

- 2. THE REGULATION REQUIRES R/R ACTIVITIES TO BE CONDUCTED ACCORDING TO THE REQUIREMENTS OF ARTICLE IWE-4000 OF THE 1992 EDITION WITH THE 1992 ADDENDA OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL CODE (CODE). YOU ARE REQUESTING RELIEF FROM THOSE REQUIREMENTS. PLEASE CONFIRM IF YOU ARE USING AN EARLIER (e.g., 1989) EDITION OF SUBSECTION IWE FOR R/R ACTIVITIES DURING THE RELIEF PERIOD.**

Dresden and Quad Cities Stations is requesting relief from the requirements of Article IWA-4000 (which by reference also includes Articles IWA-7000, IWE-4000, and IWE-7000). Earlier editions of Subsection IWE were not be used for R/R activities during the relief period. In the interim, all R/RP activities conducted at Dresden and Quad Cities Stations will be done in accordance with the ComEd Quality Assurance Manual, as stated above in the response to Question 1.

3. **NORMALLY, THE STAFF GRANTS RELIEF REQUESTS FOR R/R ACTIVITIES FOR NOT MORE THAN 1 YEAR FROM THE EFFECTIVE DATE OF THE RULE (i.e., SEPTEMBER 9, 1996). YOU ARE REQUESTING RELIEF UNTIL DECEMBER 31, 1997. PROVIDE JUSTIFICATION FOR THIS ADDITIONAL DELAY IN IMPLEMENTING THE RULE FOR R/R ACTIVITIES FOR EACH OF THE UNITS AT DRESDEN AND QUAD CITIES.**

The request for relief until December 31, 1997 is hereby withdrawn. Alternatively, Dresden and Quad Cities Stations requests relief from the Code requirements (Articles IWA-4000, IWA-7000, IWE-4000, and IWE-7000) for R/R activities on the drywell, wetwell torus and vent system of the Mark I Containments until September 9, 1997.

RELIEF REQUEST: NR-32

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COMPONENT IDENTIFICATION

Code Class: MC, CC
References: IWA-4000 and IWA-7000
IWE-4000 and IWE-7000
IWL-4000 and IWL-7000
Examination Category: E-A, E-B, E-C, E-D, E-F, E-G, and E-P
L-A, L-B
Item Number: All Class MC and CC components listed in Table IWE-2500-1 and IWL-2500-1
Description: ASME Section XI Repair and Replacement Procedures for IWE and IWL Components
Component Numbers: All Class MC and CC components subject to Repair and Replacement rules of IWA-4000, IWA-7000, IWE-4000, IWE-7000, IWL-4000 and IWL-7000.

CODE REQUIREMENT

10 CFR 50.55a(g)(4)(v) requires Class MC and CC pressure retaining components and their integral attachments to meet the applicable repair and replacement requirements of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000, IWA-7000, IWE-4000, IWE-7000, IWL-4000 and IWL-7000.

BASIS FOR RELIEF

Relief is requested from immediate compliance with the repair and replacement requirements of Subsections IWE and IWL. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested on the basis that immediate compliance with the aforementioned requirements would result in unusual difficulty without a compensating increase in the level of quality and safety.

A revision to 10 CFR 50.55a was published on August 8, 1996, which endorses Subsections IWE and IWL of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda. This revision requires the completion of an expedited examination by September 9, 2001. However, in a letter to the Nuclear Energy Institute (NEI) dated November 6, 1996, the NRC staff clarifies that all repair and replacement activities within the scope of Subsections IWE and IWL which are conducted after September 9, 1996 must be conducted in accordance with the applicable rules of Subsections IWE and IWL of ASME Section XI, 1992 Edition with the 1992 Addenda.

Immediate compliance with the repair and replacement rules of ASME Section XI, 1992 Edition with the 1992 Addenda for IWE components is impractical because substantial time and resources must be expended for the following major efforts:

1. CONTAINMENT STRUCTURE COMPONENT CLASSIFICATION: The containment structures at Braidwood Station were constructed to the proposed rules of the 1973 ASME Section III, Division 2 Code. In order to comply with 10 CFR 50.55a(g)(4)(v), it will be necessary to identify and reclassify all containment components to Class MC and CC classification criteria. This effort will include the retrieval and review of all applicable fabrication and installation documentation, the development of a basis document to identify the correct classification boundaries and the eventual development of an inservice

RELIEF REQUEST: NR-32

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inspection program to govern all IWE/IWL-related activities at Braidwood Station.

2. PROCEDURE REVISIONS: The requirements of Subsections IWE and IWL must be incorporated into applicable station procedures. The current Inservice Inspection program, (which includes the repair and replacement program), for Braidwood Station is currently based on the rules of ASME Section XI, 1983 Edition with the Summer 1983 Addenda, and only addresses the inservice inspection requirements for Class 1, 2, and 3 pressure retaining components and component supports. Therefore, multiple procedures that control Code repair and replacement activities must be revised to incorporate the unique requirements of Subsections IWE and IWL.
3. EXAMINER TRAINING AND CERTIFICATION: The unique examiner qualification required by Subsections IWE and IWL must be incorporated into the existing Commonwealth Edison (ComEd) certification and training program. The existing ComEd certification and training program only addresses the certification requirements for Class 1, 2 and 3 pressure retaining components and component supports. The ComEd certification and training program must be revised to incorporate the unique requirements of Subsections IWE and IWL.

Since the containment structures at Braidwood Station were constructed to the rules of Section III, all repair and replacement activities conducted on these components have been subjected to the ComEd Quality Assurance (QA) Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, 3.1) which implements the requirements of 10 CFR 50, Appendix B. The ComEd QA program requires repair and replacement activities to be conducted in accordance with the original design specifications using approved procedures. This approach assures applicable design bases are maintained. As stated in ComEd Quality Assurance Program Topical Report CE-1-A, current revision, the ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50, Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. In addition, the containment structure integrity is verified by periodic pressure tests in accordance with Appendix J and the surveillance of the post-tensioning system. Post-tensioning system testing and examinations are performed in accordance with Technical Specification required programs, Braidwood Procedure BwVP 200-15, "Containment Vessel Tendon Inspection Requirements" and implementing procedure, BwVS 6.1.1.1-1, "Containment Vessel Tendon Test". These Approved procedures incorporate the requirements of NRC proposed Revision 3 of Regulatory Guide 1.35.

For the above reasons the immediate application of the requirements of Articles IWA-4000, IWA-7000, IWE-4000, IWE-7000, IWL-4000 and IWL-7000 imposes added administrative burden (such as requirement for a repair/replacement plan and NIS-2 form) without providing a compensating increase in the level of quality or safety.

PROPOSED ALTERNATE PROVISIONS

Through September 8, 1997, all repair and replacement activities conducted on Class MC and CC containment structure components and their integral attachments at Braidwood Station will be performed in accordance with the existing ComEd QA Program requirements. Compliance with ASME Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000, IWA-7000, IWE-4000, IWE-7000, IWL-4000 and IWL-7000 will begin on September 9, 1997.

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Should the need arise to complete Repair/Replacement activities on any Class MC and CC pressure retaining components or their integral attachments prior to September 9, 1997, these activities will continue to be controlled using approved Nuclear Work Requests in accordance with Braidwood Administrative Procedure BwAP 1600-1, "Action/Work Request Processing Procedure". These Nuclear Work Requests will be classified as "Nuclear Safety Related" and thus, their preparation, review, approval, implementation and associated post Repair/Replacement testing is governed by the ComEd QA Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, 3.1). The ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Post-tensioning system testing and examinations will be performed in accordance with Technical Specification required programs, Braidwood procedures BwVP 200-15, "Containment Vessel Tendon Inspection Requirements", and BwVS 6.1.6.1-1, "Containment Vessel Tendon Test". These approved procedures incorporate the requirements of proposed Revision 3 of Regulatory Guide 1.35. In addition, the applicability of Section XI repair/replacement requirements for Class CC concrete containment and post-tensioning system components, Class MC pressure retaining components and their integral attachments and metallic shell and penetration liners of Class CC components will be controlled in accordance with Braidwood administrative Procedure BwAP 1600-5, "ASME Section XI Repair/Replacement Requirements".

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Inservice Inspection Program for Braidwood Units 1 and 2 until September 9, 1997.

**BYRON STATION UNIT 1 SECOND INTERVAL
ISI PROGRAM PLAN-NRC SUBMITTAL**

RELIEF REQUEST I2R-19 Revision 1

(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class: MC and CC
References: IWA-4000 and IWA-7000
IWE-4000 and IWE-7000
IWL-4000 and IWL-7000
Examination Category: E-A, E-B, E-C, E-D, E-F, E-G, and E-P
L-A and L-B
Item Number: All Class MC components listed in Table IWE-2500-1
All Class CC components listed in Table IWL-2500-1
Description: ASME Section XI Repair and Replacement Procedures for IWE and IWL
Component Numbers: All Class MC and Class CC components subject to Repair and Replacement rules of
IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000

CODE REQUIREMENT

10 CFR 50.55a(g)(4)(v) requires Class MC and CC pressure retaining components and their integral attachments to meet the applicable ASME Section XI repair and replacement requirements of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000.

BASIS FOR RELIEF

Relief is requested from immediate compliance with the repair and replacement requirements of Subsections IWE and IWL. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested on the basis that immediate compliance with the aforementioned requirements would result in unusual difficulty without a compensating increase in the level of quality and safety.

A revision to 10 CFR 50.55a was published on August 8, 1996, which endorses Subsections IWE and IWL of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda. This revision requires the completion of an expedited examination by September 9, 2001. Additionally, in a letter to the Nuclear Energy Institute (NEI) dated November 6, 1996, the NRC staff clarifies that all repair and replacement activities within the scope of Subsections IWE and IWL which are conducted after September 9, 1996 must be conducted in accordance with the applicable rules of Subsections IWE and IWL of ASME Section XI, 1992 Edition with the 1992 Addenda.

Immediate compliance with the repair and replacement rules of ASME Section XI, 1992 Edition with the 1992 Addenda for IWE and IWL components is impractical because substantial time and resources must be expended for the following major efforts:

**BYRON STATION UNIT 1 SECOND INTERVAL
ISI PROGRAM PLAN-NRC SUBMITTAL**

RELIEF REQUEST I2R-19 Revision 1

(Page 2 of 3)

1. **CONTAINMENT STRUCTURE COMPONENT CLASSIFICATION:** The containment structures at Byron Station were constructed to the rules of Section III, 1971, 1973 and 1974 Editions, Quality Group B. In order to comply with 10 CFR 50.55a(g)(4)(v), it will be necessary to identify and reclassify all containment components to Class MC and Class CC classification criteria. This effort will include the retrieval and review of all applicable fabrication and installation documentation, the development of a basis document to identify the correct classification boundaries and the eventual development of an inservice inspection program to govern all IWE and IWL -related activities at Byron Station.
2. **PROCEDURE REVISIONS:** The requirements of IWE and IWL must be incorporated into applicable station procedures. The current Inservice Inspection program, (which includes the repair and replacement program), for Byron Station is currently based on the rules of ASME Section XI, 1983 Edition with Summer 1983 Addenda and only addresses the inservice inspection requirements for Class 1, 2 and 3 pressure retaining components and component supports. Therefore, various procedures that control Code repair and replacement activities must be revised to incorporate the unique requirements of Subsection IWE and IWL.
3. **EXAMINER TRAINING AND CERTIFICATION:** The unique examiner qualification required by Subsection IWE must be incorporated into the existing Commonwealth Edison (ComEd) certification and training program. The existing ComEd certification and training program only addresses the certification requirements for Class 1, 2 and 3 pressure retaining components and component supports. The ComEd certification and training program must be revised to incorporate the unique requirements of Subsection IWE and IWL.

Since the containment structures at Byron Station were constructed to the rules of Section III, Quality Group B, all repair and replacement activities conducted on these components have been subjected to the ComEd Quality Assurance Manual (Commonwealth Edison Company, Topical Report CE-1-A, section 2, 3.1), which implements the requirements of 10 CFR 50, Appendix B. The ComEd QA program requires repair and replacement activities to be conducted in accordance with the original design specifications using approved procedures. This approach assures applicable design bases are maintained. As stated in ComEd Quality Assurance Program Topical Report CE-1-A, current revision, the ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50, Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. In addition, the containment structure integrity is verified by periodic pressure tests in accordance with Appendix J and the surveillance of the post-tensioning system. Post-tensioning system testing and examinations are performed in accordance with Technical Specification required programs, Byron Procedure BVP 200-15, *Containment Vessel Tendon Inspection Requirements* and implementing procedure, 1/2BVS 6.1.1.1-1, *Containment Vessel Tendon Test*. These approved procedures incorporate the requirements of NRC proposed Revision 3 of Regulatory Guide 1.35.

For the above reasons, the immediate application of the requirements of Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, and IWL-4000 and IWL-7000 imposes added administrative burden (such as requirement for a repair/replacement plan and NIS-2 form) without providing a compensating increase in the level of quality or safety.

**BYRON STATION UNIT 1 SECOND INTERVAL
ISI PROGRAM PLAN-NRC SUBMITTAL**

RELIEF REQUEST I2R-19 Revision 1

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PROPOSED ALTERNATE PROVISIONS

Through September 8, 1997, all repair and replacement activities conducted on Class MC and Class CC containment structure components and their integral attachments at Byron Unit 1 will be performed in accordance with the existing ComEd QA Program requirements. Compliance with ASME Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000 will begin on September 9, 1997.

Should the need arise to complete Repair/Replacement activities on any Class MC and CC pressure retaining components or their integral attachments prior to September 9, 1997, these activities will continue to be controlled using an approved Nuclear Work Requests in accordance with Byron Administrative Procedure BAP 1600-1, "Action/Work Request Processing Procedure. These Nuclear Work Requests will be classified as "Nuclear Safety Related" and thus, their preparation, review, approval, implementation and associated post Repair/Replacement testing is governed by the ComEd QA Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, 3.1). The ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Post-tensioning system testing and examinations will be performed in accordance with Technical Specification required programs, Byron procedures BVP 200-15, *Containment Vessel Tendon Inspection Requirements*, and 1/2BVS 6.1.6.1-1, *Containment Vessel Tendon Test*. These approved procedures incorporate the requirements of proposed Revision 3 of Regulatory Guide 1.35. In addition, the applicability of Section XI repair/replacement requirements for Class CC concrete containment and post-tensioning system components, Class MC pressure retaining components and their integral attachments and metallic shell and penetration liners of Class CC components will be controlled in accordance with Byron administrative Procedure BAP 1600-5, *ASME Section XI Repair/Replacement Requirements*.

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Inservice Inspection Program for Byron Unit 2 until September 9, 1997.

**BYRON UNIT 2
INSERVICE INSPECTION**

RELIEF REQUEST NR-21

COMPONENT IDENTIFICATION

Code Class: MC and CC
References: IWA-4000 and IWA-7000
IWE-4000 and IWE-7000
IWL-4000 and IWL-7000
Examination Category: E-A, E-B, E-C, E-D, E-F, E-G, and E-P
L-A and L-B
Item Number: All Class MC components listed in Table IWE-2500-1
All Class CC components listed in Table IWL-2500-1
Description: ASME Section XI Repair and Replacement Procedures for IWE and IWL
Component Numbers: All Class MC and Class CC components subject to Repair and Replacement rules of
IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000

CODE REQUIREMENT

10 CFR 50.55a(g)(4)(v) requires Class MC and CC pressure retaining components and their integral attachments to meet the applicable ASME Section XI repair and replacement requirements of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000.

BASIS FOR RELIEF

Relief is requested from immediate compliance with the repair and replacement requirements of Subsections IWE and IWL. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested on the basis that immediate compliance with the aforementioned requirements would result in unusual difficulty without a compensating increase in the level of quality and safety.

A revision to 10 CFR 50.55a was published on August 8, 1996, which endorses Subsections IWE and IWL of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda. This revision requires the completion of an expedited examination by September 9, 2001. Additionally, in a letter to the Nuclear Energy Institute (NEI) dated November 6, 1996, the NRC staff clarifies that all repair and replacement activities within the scope of Subsections IWE and IWL which are conducted after September 9, 1996 must be conducted in accordance with the applicable rules of Subsections IWE and IWL of ASME Section XI, 1992 Edition with the 1992 Addenda.

Immediate compliance with the repair and replacement rules of ASME Section XI, 1992 Edition with the 1992 Addenda for IWE and IWL components is impractical because substantial time and resources must be expended for the following major efforts:

RELIEF REQUEST NR-21

(Cont'd)

1. **CONTAINMENT STRUCTURE COMPONENT CLASSIFICATION:** The containment structures at Byron Station were constructed to the rules of Section III, 1971, 1973 and 1974 Editions, Quality Group B. In order to comply with 10 CFR 50.55a(g)(4)(v), it will be necessary to identify and reclassify all containment components to Class MC and Class CC classification criteria. This effort will include the retrieval and review of all applicable fabrication and installation documentation, the development of a basis document to identify the correct classification boundaries and the eventual development of an inservice inspection program to govern all IWE and IWL -related activities at Byron Station.
2. **PROCEDURE REVISIONS:** The requirements of IWE and IWL must be incorporated into applicable station procedures. The current Inservice Inspection program, (which includes the repair and replacement program), for Byron Station is currently based on the rules of ASME Section XI, 1983 Edition with Summer 1983 Addenda and only addresses the inservice inspection requirements for Class 1, 2 and 3 pressure retaining components and component supports. Therefore, various procedures that control Code repair and replacement activities must be revised to incorporate the unique requirements of Subsection IWE and IWL
3. **EXAMINER TRAINING AND CERTIFICATION:** The unique examiner qualification required by Subsection IWE must be incorporated into the existing Commonwealth Edison (ComEd) certification and training program. The existing ComEd certification and training program only addresses the certification requirements for Class 1, 2 and 3 pressure retaining components and component supports. The ComEd certification and training program must be revised to incorporate the unique requirements of Subsection IWE and IWL.

Since the containment structures at Byron Station were constructed to the rules of Section III, Quality Group B, all repair and replacement activities conducted on these components have been subjected to the ComEd Quality Assurance Manual (Commonwealth Edison Company, Topical Report CE-1-A, section 2, 3.1), which implements the requirements of 10 CFR 50, Appendix B. The ComEd QA program requires repair and replacement activities to be conducted in accordance with the original design specifications using approved procedures. This approach assures applicable design bases are maintained. As stated in ComEd Quality Assurance Program Topical Report CE-1-A, current revision, the ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50, Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. In addition, the containment structure integrity is verified by periodic pressure tests in accordance with Appendix J and the surveillance of the post-tensioning system. Post-tensioning system testing and examinations are performed in accordance with Technical Specification required programs, Byron Procedure BVP 200-15, *Containment Vessel Tendon Inspection Requirements* and implementing procedure, 1/2BVS 6.1.1.1-1, *Containment Vessel Tendon Test*. These approved procedures incorporate the requirements of NRC proposed Revision 3 of Regulatory Guide 1.35.

For the above reasons the immediate application of the requirements of Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, and IWL-4000 and IWL-7000 imposes added administrative burden (such as requirement for a repair/replacement plan and NIS-2 form) without providing a compensating increase in the level of quality or safety.

RELIEF REQUEST NR-21

(Cont'd)

PROPOSED ALTERNATE PROVISIONS

Through September 8, 1997, all repair and replacement activities conducted on Class MC and Class CC containment structure components and their integral attachments at Byron Unit 1 will be performed in accordance with the existing ComEd QA Program requirements. Compliance with ASME Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000 and IWA-7000, IWE-4000 and IWE-7000, IWL-4000 and IWL-7000 will begin on September 9, 1997.

Should the need arise to complete Repair/Replacement activities on any Class MC and CC pressure retaining components or their integral attachments prior to September 9, 1997, these activities will continue to be controlled using an approved Nuclear Work Requests in accordance with Byron Administrative Procedure BAP 1600-1, "Action/Work Request Processing Procedure. These Nuclear Work Requests will be classified as "Nuclear Safety Related" and thus, their preparation, review, approval, implementation and associated post Repair/Replacement testing is governed by the ComEd QA Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, 3.1). The ComEd Quality Assurance Program complies with the quality requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Post-tensioning system testing and examinations will be performed in accordance with Technical Specification required programs, Byron procedures BVP 200-15, *Containment Vessel Tendon Inspection Requirements*, and 1/2BVS 6.1.6.1-1, *Containment Vessel Tendon Test*. These approved procedures incorporate the requirements of proposed Revision 3 of Regulatory Guide 1.35. In addition, the applicability of Section XI repair/replacement requirements for Class CC concrete containment and post-tensioning system components, Class MC pressure retaining components and their integral attachments and metallic shell and penetration liners of Class CC components will be controlled in accordance with Byron administrative Procedure BAP 1600-5, *ASME Section XI Repair/Replacement Requirements*.

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Inservice Inspection Program for Byron Unit 2 until September 9, 1997.

RELIEF REQUEST NUMBER: MCR-01

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COMPONENT IDENTIFICATION

Code Class: MC
References: IWA-4000 and IWA-7000
IWE-4000 and IWE-7000
Examination Category: E-A, E-B, E-C, E-D, E-F, E-G, and E-P
Item Number: All Class MC components listed in Table IWE-2500-1
Description: ASME Section XI Repair and Replacement Procedures for IWE
Component Numbers: All Class MC components subject to Repair and Replacement rules of IWA-4000, IWA-7000, IWE-4000, and IWE-7000

CODE REQUIREMENT

10 CFR 50.55a(g)(4)(v) requires Class MC and CC pressure retaining components and their integral attachments to meet the applicable ASME Section XI repair and replacement requirements. Class CC (Subsection IWL) does not apply to Dresden Units 2 or 3.

Articles IWA-7000, IWE-4000, and IWE-7000 all refer to Article IWA-4000 for Repair Procedures.

BASIS FOR RELIEF

Relief is requested from immediate compliance with the repair and replacement requirements of Subsection IWE. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested on the basis that immediate compliance with the aforementioned requirements would result in unusual difficulty without a compensating increase in the level of quality and safety.

A revision to 10 CFR 50.55a was published on August 8, 1996, which endorses Subsection IWE of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda. This revision requires the completion of an expedited examination by September 9, 2001. However, in a letter to the Nuclear Energy Institute (NEI) dated November 6, 1996, the NRC staff clarifies that all repair and replacement activities within the scope of Subsections IWE and IWL which are conducted after September 9, 1996 must be conducted in accordance with the applicable rules of Subsections IWE and IWL of ASME Section XI, 1992 Edition with the 1992 Addenda.

Immediate compliance with the repair and replacement rules of ASME Section XI, 1992 Edition with the 1992 Addenda for IWE components is impractical because substantial time and resources must be expended for the following major efforts:

RELIEF REQUEST NUMBER: MCR-01

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BASIS FOR RELIEF (Cont)

1. **CONTAINMENT STRUCTURE COMPONENT CLASSIFICATION:** The containment structures at Dresden Station were constructed to the rules of Section III, 1965 Edition with the Summer 1965 Addenda, Class B. In order to comply with 10 CFR 50.55a(g)(4)(v), it will be necessary to identify and reclassify all containment components to Class MC classification criteria. This effort will include the retrieval and review of all applicable fabrication and installation documentation, the development of a basis document to identify the correct classification boundaries and the eventual development of an inservice inspection program to govern all IWE-related activities at Dresden Station.
2. **PROCEDURE REVISIONS:** The requirements of IWE must be incorporated into applicable station procedures. The current Inservice Inspection program, (which includes the repair and replacement program), for Dresden Station is currently based on the rules of ASME Section XI, 1989 Edition and only addresses the inservice inspection requirements for Class 1, 2 and 3 pressure retaining components and component supports. Therefore, various procedures that control Code repair and replacement activities must be revised to incorporate the unique requirements of Subsection IWE.
3. **EXAMINER TRAINING AND CERTIFICATION:** The unique examiner qualification required by Subsection IWE must be incorporated into the existing Commonwealth Edison (ComEd) certification and training program. The existing ComEd certification and training program only addresses the certification requirements for examination of Class 1, 2 and 3 pressure retaining components and component supports. The ComEd certification and training program must be revised to incorporate the unique requirements of Subsection IWE.

Since the containment structures at Dresden Station were constructed to the rules of Section III, and are classified as Safety Related, all repair and replacement activities conducted on these components are governed by the ComEd Quality Assurance (QA) Manual (Commonwealth Edison Company, Topical Report CE-1-A, Section 2, Subsection 3.1), which complies with the requirements of 10 CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Dresden Station Administrative Procedure DAP 15-01, "INITIATING AND PROCESSING A WORK REQUEST" implements the ComEd QA Manual requirements. The ComEd QA Program requires repair and replacement activities to be conducted in accordance with the original design specifications using approved procedures. This approach assures applicable design bases are maintained. In addition, the containment structure integrity is verified by periodic pressure tests in accordance with 10 CFR 50, Appendix J, Option B.

For the above reasons, the immediate application of the requirements of Articles IWA-4000, IWA-7000, IWE-4000 and IWE-7000 imposes an added administrative burden (such as

RELIEF REQUEST NUMBER: MCR-01

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BASIS FOR RELIEF (Con't)

requirement for a repair/replacement plan and NIS-2 form) without providing a compensating increase in the level of quality or safety.

PROPOSED ALTERNATE PROVISIONS

Until September 9, 1997, all repair and replacement activities conducted on Class MC containment structure components at Dresden Station will be performed in accordance with the current ComEd QA Appendix B Program and Dresden Station site specific requirements. Compliance with ASME Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000, IWA-7000, IWE-4000, and IWE-7000 will begin on September 9, 1997.

APPLICABLE TIME PERIOD

Relief is requested for Dresden Units 2 and 3 until September 9, 1997.

ATTACHMENT A (Page 1 of 3)
RELIEF REQUEST NUMBER: CR - 19 Rev 1

COMPONENT IDENTIFICATION

Code Class: MC
References: IWE-4000 and IWE-7000
IWA-4000 and IWA-7000
Examination Category: E-A, E-B, E-C, E-D, E-F, E-G, AND E-P
Item Numbers: All Class MC components listed in Table IWE-2500-1
Description: ASME Section XI Repair and Replacement Procedures
For IWE Components
Units: 1 and 2
Component Numbers: All Class MC Components Subject to Repair and
Replacement Rules of IWA-4000, IWA-7000, IWE-4000,
and IWE-7000

CODE REQUIREMENT:

10CFR50.55a(g)(4)(v) requires Class MC and CC pressure retaining components and their integral attachments to meet the applicable ASME Section XI repair and replacement requirements. Class CC (Subsection IWL) does not apply to Quad Cities Units 1 or 2.

Articles IWA-7000, IWE-4000, and IWE-7000 all refer to Article IWA-4000 for Repair Procedures.

BASIS FOR RELIEF

Relief is requested from immediate compliance with the repair and replacement requirements of Subsection IWE. Pursuant to 10CFR50.55a(a)(3)(ii), relief is requested on the basis that the immediate compliance with the aforementioned requirements would result in unusual difficulty without a compensating increase in the level of quality and safety.

A revision to 10CFR50.55a was published on August 8, 1996, which endorses Subsection IWE of the ASME Boiler and Pressure Vessel Code Section XI, 1992 Edition with the 1992 Addenda. This revision requires the completion of an expedited examination by September 9, 2001. However, in a letter to the Nuclear Energy Institute (NEI) dated November 6, 1996, the NRC staff clarifies that all repair and replacement activities within the scope of Subsections IWE and IWL which are conducted after September 9, 1996 must be conducted in accordance with the applicable rules of Subsections IWE and IWL of ASME Section XI, 1992 Edition and 1992 Addenda.

Immediate compliance with the repair and replacement rules of ASME Section XI, 1992 Edition and 1992 Addenda, for IWE components is impractical because substantial time and resources must be expended for the following major efforts:

ATTACHMENT A (Page 2 of 3)
RELIEF REQUEST NUMBER: CR-19 Rev 1

BASIS FOR RELIEF (continued)

1. **CONTAINMENT STRUCTURE COMPONENT CLASSIFICATION:** The containment structures at Quad Cities Station were constructed to the rules of ASME Section III, 1965 Edition including Addenda up to and including Winter 1965, Class B. In order to comply with 10 CFR 50.55a(g)(4)(v), it will be necessary to identify and reclassify all containment components to Class MC classification criteria. This effort will include the retrieval and review of all applicable fabrication and installation documentation, the development of a basis document to identify the correct classification boundaries, and the eventual development of an Inservice Inspection Program to govern all IWE-related activities at Quad Cities Station.
2. **PROCEDURE REVISIONS:** The requirements of IWE must be incorporated into applicable station procedures. The current Inservice Inspection Program, (which includes the repair and replacement program), for Quad Cities Station is currently based on the rules of ASME Section XI, 1989 Edition and only addresses the inservice inspection requirements for Class 1, 2 and 3 pressure retaining components and component supports. Therefore, various procedures that control Code repair and replacement activities must be revised to incorporate the unique requirements of Subsection IWE.
3. **EXAMINER TRAINING AND CERTIFICATION:** The unique examiner qualification required by Subsection IWE must be incorporated into the existing Commonwealth Edison (ComEd) training and certification program. The existing ComEd training and certification program only addresses the certification requirements for Class 1, 2, and 3 pressure retaining components and component supports. The ComEd training and certification program must be revised to incorporate the unique requirements of Subsection IWE.

Since the containment structures at Quad Cities Station were constructed to the rules of ASME Section III and are classified as Safety Related, all repair and replacement activities conducted on these components are governed by the ComEd Quality Assurance (QA) Program, which complies with the requirements of 10CFR 50 Appendix B, ASME Section III NCA-4000, and ANSI/ASME NQA-1. Quad Cities Station Administrative Procedure QCAP 2200-02, "Work Control Process" implements the ComEd QA Program requirements. The ComEd QA Program requires repair and replacement activities to be conducted in accordance with the original design specifications using approved procedures. This approach assures applicable design bases are maintained. In addition, the containment structural integrity is verified by periodic pressure tests in accordance with 10CFR 50 Appendix J, Option B. For the above reasons, the immediate application of the requirements of Articles IWA-4000, IWA-7000, IWE-4000 and IWE-7000 imposes an added administrative burden (such as the requirement for a repair/replacement plan and NIS-2 form) without providing a compensating increase in the level of quality or safety.

ATTACHMENT A (page 3 of 3)
RELIEF REQUEST NUMBER: CR-19 Rev 1

PROPOSED ALTERNATIVE PROVISIONS

Through September 8, 1997, repair and replacement activities conducted on Class MC containment structure components at Quad Cities Station will be performed in accordance with the current ComEd QA Appendix B Program and Quad Cities Station specific requirements. Compliance with ASME Section XI, 1992 Edition with the 1992 Addenda, Articles IWA-4000, IWA-7000, IWE-4000 and IWE-7000 will begin on September 9, 1997.

APPLICABLE TIME PERIOD

Relief is requested during the third ten-year interval of the Inservice Inspection Program for Quad Cities Station Units 1 and 2 until September 9, 1997.