



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 18, 2000

Mr. Oliver D. Kingsley, President
Nuclear Generation Group
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON, DRESDEN AND LASALLE - EVALUATION OF RELIEF REQUESTS:
USE OF 1998 EDITION OF SUBSECTIONS IWE AND IWL OF THE ASME
CODE FOR CONTAINMENT INSPECTION (TAC NOS. MA8933, MA8934,
MA8935, MA8936, MA8937 AND MA8938)

Dear Mr. Kingsley:

By letter dated May 8, 2000, Commonwealth Edison Company (ComEd) submitted requests for relief from the requirements of Subsections IWE and IWL of the 1992 Edition and 1992 Addenda of Section XI, Division 1 of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) for Byron Station, Units 1 and 2 (Byron), and LaSalle County Station, Units 1 and 2 (LaSalle). Also requested was relief from IWE of the 1992 Code and Addenda for Dresden Nuclear Power Station, Units 2 and 3 (Dresden). The relief requests propose to use the 1998 Edition of Subsections IWE and IWL of Section XI for inspection of Byron, Dresden, and LaSalle containments as an alternative to the 1992 Edition and Addenda of the ASME Code, which is incorporated by reference in Title 10 of the Code of Federal Regulations, Section 50.55a (10 CFR 50.55a). Additional information was provided by ComEd in its letters of August 18 and 30, 2000.

The NRC staff, with assistance from our contractor, the Idaho National Engineering and Environmental Laboratory (INEEL), has completed its review of the subject relief requests. The NRC staff adopts the evaluations and conclusions contained in the Technical Evaluation Report (TER) prepared by INEEL as supplemented by the discussions in the enclosed safety evaluation (SE). The SE incorporates the TER (attached) and its findings.

Mr. Oliver D. Kingsley

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Based on the review of ComEd's submittals, the NRC staff finds that the use of the 1998 Edition of the Code will provide an acceptable level of quality and safety for ensuring the pressure integrity of the containments for Byron, Dresden, and LaSalle. Therefore, the staff authorizes the use of the proposed alternatives for the first inspection interval of the containments pursuant to 10 CFR 50.55a(a)(3)(i).

Sincerely,

/RA/

Anthony J. Mendiola, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,
50-237, 50-249, 50-373, 50-374

Enclosure: Safety Evaluation
w/attached TER

cc w/encl: See next page

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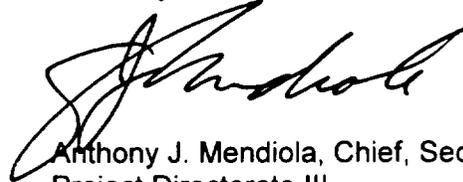
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Mr. Oliver D. Kingsley

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Based on the review of ComEd's submittals, the NRC staff finds that the use of the 1998 Edition of the Code will provide an acceptable level of quality and safety for ensuring the pressure integrity of the containments for Byron, Dresden, and LaSalle. Therefore, the staff authorizes the use of the proposed alternatives for the first inspection interval of the containments pursuant to 10 CFR 50.55a(a)(3)(i).

Sincerely,



Anthony J. Mendiola, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,
50-237, 50-249, 50-373, 50-374

Enclosure: Safety Evaluation
w/attached TER

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE CONTAINMENT INSERVICE INSPECTION PROGRAM

REQUESTS FOR RELIEF

COMMONWEALTH EDISON COMPANY

BYRON STATION, UNITS 1 AND 2

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. STN 50-454, STN 50-455, 50-237, 50-249, 50-373 AND 50-374

1.0 INTRODUCTION

The Code of Federal Regulations, 10 CFR 50.55a(g)(6)(ii)(B), requires containment inspections to be performed in accordance with the requirements of Subsections IWE and IWL of the 1992 Edition up to and including the 1992 Addenda of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), as modified by 10 CFR 50.55a(b)(2)(ix). Licensees of all operating nuclear power plants are required to complete their first period inspections by September 9, 2001.

2.0 EVALUATION

By letter dated May 8, 2000, Commonwealth Edison Company (ComEd, the licensee), submitted proposed alternatives to the containment inspection requirements of the 1992 Edition of ASME Subsections IWE and IWL for Byron Station, Units 1 and 2 (Byron) and LaSalle County Station, Units 1 and 2 (LaSalle). The licensee proposed to use the provisions of Section XI, Subsections IWE and IWL of the 1998 Edition of the Code which has not yet been incorporated by reference into 10 CFR 50.55a. The licensee also requested relief from the ASME Code, Subsection IWE of Section XI for Dresden Nuclear Power Station, Units 2 and 3 (Dresden). In the submittal, the licensee provided a table comparing the requirements of the 1998 Edition with the 1992 Edition and Addenda, and proposed alternatives. The licensee provided additional information by letters of August 18 and 30, 2000, in response to a staff request for additional information (RAI) dated August 11, 2000.

The staff, with assistance of its contractor, the Idaho Engineering and Environmental Laboratory (INEEL), conducted an evaluation of the relief requests that included a review and comparison of the requirements in Subsections IWE and IWL of the 1992 Edition and Addenda and the 1998 Edition, and an analysis of the implications of the Code changes. INEEL's attached technical evaluation report (TER) describes the licensee's basis for requesting relief,

and discusses the implication of the alternatives in terms of quality and safety as it relates to the inspection of the units at Byron, Dresden and LaSalle. Attached to the TER is a table of comparison for Subsection IWE (Appendix A) and a table of comparison for Subsection IWL (Appendix B). The four columns of the tables provide the following information:

- Column 1 Paragraph (sometimes includes articles and subarticles) corresponding to the 1992 Edition and Addenda of Subsections IWE and IWL of the ASME Code, Section XI.
- Column 2 Changes between the 1992 Edition and Addenda and the 1998 Edition.
- Column 3 Licensee's statement of significance and/or basis for use as an alternative examination.
- Column 4 INEEL's recommended disposition/comments: INEEL's disposition is principally based on the technical adequacy of the requirements of the 1998 Edition of the Code as they relate to containment inservice inspection.

Based on the review of the comparative requirements, the staff identified several significant Code changes that required additional information from the licensee. These changes are discussed in Sections 2.1 through 2.4. The staff adopts the evaluations and conclusions of the TER as supplemented by the discussions in Sections 2.1 through 2.4.

2.1 Personnel Qualification and Visual Examination Methods, IWE-2300 and IWL-2300

The 1992 Edition and Addenda (Table IWE-2500-1 and IWL-2300) invoke the use of IWA-2200 for visual, surface, and volumetric examination methods, and for qualification of personnel. The 1998 Edition of the Code (IWE-2300 and IWL-2300) requires the owner (i.e., licensee) to define requirements for visual examination of containment surfaces, and for qualifying the personnel performing visual examinations. Additionally, IWE-2320 requires the owner to designate a responsible individual who will be responsible for activities related to the containment surface visual examinations and personnel qualification.

The 1992 Addenda has incorporated ANSI/ASNT CP-189 for the qualification of examination personnel. Subsection IWE of the 1998 Edition, takes exception to the certification requirements of other Subsections of the Code and invokes plant-specific personnel certification requirements for persons performing examinations under IWE and IWL. The 1998 Edition relies on the responsible individual to direct the containment visual examinations. In its August 18, 2000, letter, the licensee states:

The containment visual examination certification program is developed from the guidelines of American National Standards Institute (ANSI)/American Society of Nondestructive Testing (ASNT) CP-189, Standard for Qualification and Certification of Nondestructive Personnel. ANSI/ASNT CP-189 does not specifically include visual examinations; therefore, visual certification is based on written practice specific to containment visual examination.

Personnel performing general and detailed visual examinations of Class MC and Class CC components will be certified to a written practice equivalent to the written practice for certification of Visual Testing (VT) personnel. The written practice for certification of VT personnel is written to comparable levels of ANSI/ASNT CP-189 in accordance with the 1992 Edition with 1992 Addenda of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components.

The licensee's proposed acceptance criteria for the general and detailed visual examinations are described in its letters dated August 18 and 30, 2000. The licensee states that the general and detailed visual examinations have been developed from the guidelines of ACI 201.1R-92, "Guide For Making a Condition Survey of Concrete in Service," and ACI 349.3R-96, "Evaluation of Existing Nuclear Safety-Related Concrete Structures."

The staff concludes that the incorporation of these provisions into the licensee's containment inservice inspection procedures provides reasonable assurance that the licensee's defined visual examination methods and personnel qualification procedures are adequate.

2.2 Paint and Coatings, IWE-2500(b)

The requirement to examine paint or coatings prior to removal was deleted in the 1998 Edition of the Code. The staff has no objection to this deletion. However, in the absence of any examination for detecting flaws or degradation in the containment base metal, the recoating may be applied to a degraded surface.

The licensee states that their procedural requirements ensure that coating deficiencies on the containment liner are brought to the attention of the responsible individual. Further, if removal is necessary, a detailed visual examination will be conducted on the base metal prior to reapplication of the coating. In addition, the licensee states in its August 18, 2000, letter, that:

Procedural requirements ensure that a detailed visual examination of the base metal, when exposed, is performed prior to coating reapplication, and as a minimum 90 percent of the original nominal base metal thickness is maintained prior to reapplication of coatings.

The staff finds that the implementation of the above process will ensure that the base metal degradation will be identified, and appropriate action taken, prior to recoating the containment liner.

2.3 Ultrasonic Examinations, IWE-3511.3

In Paragraph IWE-3511.3 of the 1998 Edition of the Code, examination of Class CC metallic liners has been excluded from the acceptance criterion, which requires disposition of areas where material loss exceeds 10 percent of the nominal wall thickness. Therefore, the 1998 Code is not acceptable for Class CC metallic liners without augmentation by the licensee. The licensee states in its letter of August 30, 2000, that the ultrasonic examinations required by IWE-3511.3 apply to Class CC components as well as to Class MC components. Specifically, if

greater than 10 percent material loss is identified, the area shall be subject to acceptance by engineering evaluation or repair. This is equivalent to the requirements of the 1992 Addenda. Therefore, the staff concludes that the proposed acceptance criterion for wall thinning will ensure that the integrity of the liner plate is maintained and, thus, will provide an acceptable level of quality and safety.

2.4 Examination of Pressure Retaining Bolting, Table IWE-2500-1

In the 1998 Edition of IWE, the requirements for bolted connections have been moved to Examination Category E-A, Item E1.10 Containment Vessel Pressure Retaining Boundary and Item E1.11 Accessible Surface Areas. The 1998 Edition requires that 100 percent of the accessible surface areas of the containment vessel pressure retaining boundary be visually examined (general visual) during each inspection interval. Included in the examination are bolts, studs, nuts, bushings, washers, and threads in base material and flange ligaments between fastener holes. The Code does not require that the bolted connection be disassembled for performance of the examination.

The staff determined that the Code requirements for visual examination of bolted connections are not fully satisfactory and recommends the following guidelines.

All accessible bolted connections shall be visually examined each inspection period per the requirements of the 1998 Edition of ASME Section XI, Table IWE-2500-1, Category E-A. This corresponds to an examination of all bolted connections three times per inspection interval. The licensee shall perform a general visual examination (VT-3 or equivalent) on the exposed portions of the connection. Bolted connections need not be disassembled solely for the performance of VT-3 examinations. However, if the general visual examination indicates possible areas of degradation or damage, a detailed visual examination (VT-1 or equivalent) shall be performed.

If a bolted connection is disassembled at the time of periodic inspection, all accessible surface areas of the connection shall be visually examined [general (VT-3), or detailed (VT-1), if necessary]. If a connection is disassembled at times other than periodic (or planned) inspection and is not examined by a qualified visual examiner before reassembly, written maintenance procedures shall be followed to ensure that the integrity of reassembled bolted connections are maintained. The written procedures shall include acceptance criteria for the continued use of all parts of the connection including bolts, studs, nuts, bushings, washers, threads in base material and flange ligaments between fastener holes.

The licensee's description of examination of containment pressure boundary bolted connections in its letter dated August 30, 2000, is consistent with the above guidelines and provides a reasonable and practical approach to ensure that degraded and damaged bolting is adequately identified. Therefore, the staff finds that the licensee's proposed alternative provides an acceptable level of quality and safety.

3.0 CONCLUSION

Based on the review of the licensee's submittal and responses to the staff's RAI, the staff finds that use of the 1998 Edition of the Code, supplemented by the licensee's commitments, will provide an acceptable level of quality and safety for ensuring the pressure boundary integrity of the containments of Byron Station, Units 1 and 2, Dresden Nuclear Power Station, Units 2 and 3, and LaSalle County Station, Units 1 and 2. Therefore, the licensee's proposed alternatives are authorized pursuant to 10 CFR 50.55a(a)(3)(i).

Attachment: Technical Evaluation Report

Principal Contributor: G. Hatchett

Date: September 18, 2000

TECHNICAL LETTER REPORT
SECOND AND THIRD 10-YEAR INTERVAL INSERVICE INSPECTION
CONTAINMENT REQUESTS FOR RELIEF I2R-38, I2R-39, MCR-02, CR-33 AND CR-34
FOR
COMMONWEALTH EDISON COMPANY
BYRON STATION, UNITS 1 AND 2
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, AND
LASALLE COUNTY STATION, UNITS 1 AND 2
DOCKET NUMBERS: 50-454, 50-455, 50-237, 50-249, 50-373 AND 50-374

1.0 INTRODUCTION

By letter dated May 8, 2000, the licensee, Commonwealth Edison Company, submitted Requests for Relief I2R-38, I2R-39, for Byron Station Units 1 and 2, CR-33 and CR-34 for LaSalle County Station, Units 1 and 2, second 10-year inservice inspection (ISI) intervals. Additionally, Request for Relief MCR-02, for Dresden Nuclear Power Station, Units 2 and 3, third 10-year inservice inspection (ISI) interval was also submitted. The licensee proposed to use the 1998 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Subsections IWE and IWL, in lieu of the 1992 Edition with 1992 Addenda, as currently specified by the Regulation for containment inspections. The licensee provided additional information in response to an NRC request in letters dated August 18, 2000 and August 29, 2000. The Idaho National Engineering and Environmental Laboratory (INEEL) staff's evaluation of the subject requests for relief is in the following section.

2.0 EVALUATION

The information provided by Commonwealth Edison Company in support of the requests for relief from Code requirements has been evaluated and the bases for disposition are documented below. The second 10-year intervals for Byron Station Units 1 and 2, and LaSalle County Station, Units 1 and 2, began September 1, 1996, August 16, 1998, November 23, 1994, and October 17, 1994, respectively. The third 10-year interval for Dresden Nuclear Power Station, Units 2 and 3 began March 1, 1992. The Code of record for containment inspections performed during the second and third 10-year inservice inspection (ISI) intervals at these plants is the 1992 Edition through 1992 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code.

2.1 Requests for Relief I2R-38 (Byron), MCR02 (Dresden), and CR-33 (Lasalle), Proposed Alternative to Use ASME Section XI, 1998 Edition, Subsection IWE, for Examination of Class MC and Metal Liners of Class CC Components

Code of Federal Regulation Requirement: 10 CFR 50.55a(g)(6)(ii)(B) requires that licensees implement the containment inservice examinations specified in Subsection IWE of the 1992 Edition with the 1992 Addenda of Section XI, Division 1, of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code).

Licensee's Proposed Alternative: In accordance with 10 CFR 50.55a(a)(3)(i), the licensee proposed to use the requirements of the 1998 Edition of ASME Section XI for the examination requirements for IWE components. The licensee stated:

"As an alternative to the requirements of the ASME Code, Section XI, 1992 Edition with the 1992 Addenda Subsection IWE, (Byron Station)(Dresden Nuclear Power Station)(LaSalle Station) will implement the requirements of the ASME Code, Section XI, 1998 Edition Subsection IWE in conjunction with the supplemental proposed alternatives listed in Table (I2R-38.1)(MCR-02.1)(CR-33.1). The supplemental proposed alternatives [Appendix C of this report] further define our visual examination program and are consistent with other Code visual examinations. Table (I2R-38.1)(MCR-02.1)(CR-33.1) details the changes between the 1992 Edition with the 1992 Addenda and 1998 Edition, significance of each change, and a basis for use as an alternative examination.

Licensee's Basis for Proposed Alternative:

"Relief is requested from the requirements of 10 CFR 50.55a(g)(ii)(B), 'Expedited examination of containment,' on the basis that the proposed alternatives provide an acceptable level of quality and safety as described in 10 CFR 50.55a(a)(3)(i).

"The 1992 Edition with the 1992 Addenda of Subsection IWE contains requirements which impose difficulties in the transition from the current In-Service Inspection (ISI) program to a program that includes containment examinations. Development and implementation of a meaningful containment ISI program would be facilitated by adopting the examination requirements detailed below. These alternative examinations provide for consistency with the existing programs as well as providing more practical requirements for the examination of containment surfaces, bolting, seals and gaskets.

"Some specific difficulties imposed by the 1992 Edition, 1992 Addenda of Subsection IWE are as follows.

"Containment bolting requires a VT-1 examination and a bolt torque or bolt tension test per Table IWE-2500-1, 'Examination Categories.' Determination of bolt torque or tension requires the performance of a maintenance activity to un-torque or un-tension the bolt and then to re-torque or re-tension the bolt. Bolted joints are currently subject to 10 CFR 50, Appendix J, 'Primary Reactor Containment Leakage Testing For Water-Cooled Reactor,' leak testing and a visual examination to verify leak tight and structural integrity. Other bolted joints subjected to visual examination by ASME Section XI, 'Rules for Inservice inspection of Nuclear Plant Components,' including Code Class 1 bolting, do not require bolt torque or bolt tension testing. Performance of the maintenance activity would be an impact to resources, increase(s) radiation exposure and could result in damage to permanent plant equipment.

"Seals and gaskets require specific VT-3 examinations per Table IWE-2500-1. Seals and gaskets are not considered as materials associated with the pressure retaining function of containment components. Bolted joints and airlocks are currently subject to 10 CFR 50 Appendix J leak testing and visual examinations to verify leak tight integrity. The performance of additional VT-3 examinations of seals and gaskets to detect conditions that may violate leak tight integrity is redundant, increases radiation exposure and would be an impact to resources.

"The proposed relief is to utilize the 1998 Edition, Subsection IWE of the ASME Code, Section XI, in its entirety. Utilizing the 1998 Edition incorporates other exceptions to the 1992 addenda stated in 'Codes and Standards for Nuclear Power Plants: Subsection IWE and Subsection IWL, Final Rule,' August 8, 1996 (61 Federal Register (FR)41303) and provides more cohesiveness than could be

achieved by requesting relief on several individual subject separately. The updating of requirements to the 1998 Edition will maintain the same level of assurance concerning the continued leak-tightness and structural integrity of metallic containment components as compliance with 1992 Code. Therefore, the overall level of plant quality and safety will not be adversely affected by utilizing the requirements of the 1998 Edition. A detailed evaluation and line by line comparison of the differences between the 1992 Edition with the 1992 Addenda of Subsection IWE and 1998 Edition of Subsection IWE is included in Table (I2R-38.1)(MCR-02.1)(I2R-38.1) of this relief request.

“Approval of this relief request at this time would reduce the overall impact to both Commonwealth Edison (ComEd) Company and the NRC resources by avoiding the incorporation of the 1992 edition and addenda of IWE in conjunction with a series of relief requests.”

Evaluation: 10CFR50.55a(g)(6)(ii)(B) requires that licensees implement the containment inservice examinations specified in Subsection IWE of the 1992 Edition with the 1992 Addenda. The licensee is proposing to implement the 1998 Edition of Section XI, Subsection IWE in lieu of the 1992 Edition and Addenda. The licensee prepared and submitted a table comparing both Code Editions. The INEEL staff has reviewed the licensee’s submittal and Subsection IWE of the 1998 Code and compared it with the 1992 Addenda. Appendix A of this report contains a comparison table, including the licensee’s statements regarding the significance of Code changes and their basis for use as an alternative examination. The table also includes INEEL comments on each change. Significant differences were noted in areas such as personnel qualification, visual examination methods, containment weld inspection, paint and coating inspection, bolting inspection, seals and gasket inspection, and the requirements for successive examinations. Each of these issues will be discussed below.

Article IWE-2100 has been added to the 1998 Edition to include requirements for visual examination and personnel qualification, while taking exception to certain requirements in Subsection IWA. Specifically, in accordance with IWE-2100, to IWA-2210, Visual Examination; IWA-2300, Qualification of Nondestructive Personnel; IWA-2500, Extent of Examination; and IWA-2600, Weld Reference System are not mandatory for Table IWE-2500 visual examinations. It is understandable to exclude the IWA-2500 and IWA-2600 requirements from the containment inspection program. However, excluding the visual examination requirements of IWA-2210 and the personnel qualification requirements of IWA-2300 may reduce the effectiveness of the Code.

Visual Examination Methods

IWE-2300 of the 1998 Edition has invoked *Owner-defined* visual examinations and supporting visual personnel qualification requirements for metallic containments. The INEEL staff notes that Section XI is intentionally organized to refer to the General Requirements of Article IWA to define the type of examination to be performed (i.e., VT-1, VT-2, or VT-3) and the requirements to certify examination personnel for all visual examinations required by subsequent Subsections. Deferring these responsibilities to the individual Owners creates a potential for substantial inconsistencies with respect to ISI of containment structures. To ensure consistent application throughout industry, it is necessary for each licensee to supplement the 1998 Code and provide specific details pertaining to visual examinations included in their Containment Inspection Program(s). Licensees Containment Inspection Programs are currently not required to be submitted for review by the regulatory authorities. For these reasons, the INEEL staff believes the 1998 Edition does not provide an acceptable level of quality and safety. To find the

proposed alternative acceptable, the licensee must provide specific information supporting the implementation of visual examination methods.

The licensee has provided acceptance criteria for the General and Detailed visual examinations. The licensee provided information that describes a containment inspection program that parallels, and meets the intent of, the 1992 Edition with the 1992 Addenda. The general and detailed visual examinations have been developed from VT-3 and VT-1 examinations for assessing containment integrity. Resolution and illumination requirements for performing direct and remote general and detailed visual examinations are equivalent to those required for VT-3 and VT-1. The effectiveness of the procedures will be demonstrated to the satisfaction of the Authorized Nuclear Inservice Inspector for capability to detect flaws and degradation. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety.

Personnel Qualification

The 1992 Addenda has incorporated ANSI/ASNT CP-189 for the qualification of examination personnel. Subsection IWE, of the 1998 Edition, takes exception to the certification requirements of other Subsections of the Code and invokes plant-specific personnel certification requirements for visual examination. Subsection IWE (1998 Edition) deleted the VT-1 and VT-3 visual examination requirements and replaced them with detailed and general visual examinations; subsequently NDE personnel may not be required to perform these examinations. The 1998 Edition relies on the *Responsible Individual* to direct the containment visual examinations. The INEEL staff believes that this approach has a substantial potential for inconsistency with respect to containment ISI. For this reason, the 1998 Edition does not provide an acceptable level of quality and safety and cannot be found acceptable without supplementary information from the licensee describing how the Containment Inspection Program meets the intent of the 1992 Edition for qualification of examination personnel. In the August 18, 2000 submittal, the licensee states:

"The containment visual examination certification program is developed from the guidelines of American National Standards Institute (ANSI)/American Society of Nondestructive Testing (ASNT) CP-189, 'Standard for Qualification and Certification of Nondestructive Personnel.' ANSI/ASNT CP-189 does not specifically include visual examinations; therefore, visual certification is based on written practice specific to containment visual examination.

"Personnel performing general and detailed visual examinations of Class MC and CC components will be certified to a written practice equivalent to the written practice for certification of Visual Testing (VT) personnel. The written practice for certification of VT personnel is written to comparable levels of ASNI/ASNT CP-189 in accordance with the 1992 Edition with 1992 Addenda of American Society of Mechanical Engineers (ASME) Boiler and Pressure (B&PV) Code, Section XI..."

Based on the statements above, the INEEL staff concludes that the licensee's containment inspection program parallels, or meets the intent of, the 1992 Edition with the 1992 Addenda for examination personnel qualification requirements. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety in this area.

Successive Examinations

IWE-2420(c) (1992 Edition) requires areas containing flaws, areas of degradation, or repairs that were found acceptable by engineering evaluation, to be reexamined during the next three inspection periods before they are removed from the augmented examination requirements. This is consistent with Subsection IWB-2420 requirements. The 1998 Edition, IWE-2420, has removed repairs from the list of conditions requiring acceptance by evaluation, which is consistent with Class 1, 2 and 3 components. In addition, the later Edition has reduced the observation time required before a suspect area can be removed from the augmented examination requirements. IWE-2420(c) (1998 Edition) requires reexamination, during the next inspection period, of areas containing flaws or areas of degradation that have been accepted for continued service by engineering evaluation. If the suspect area is unchanged during the next period examination, the area no longer requires augmented examination. This approach is consistent with the requirements for Class 2 components. However, even though an area is removed from augmented examination, it may be re-designated for augmented examination at any time during the interval if the Owner determines that conditions that cause degradation still exist. Therefore, it is concluded that this Code change provides an acceptable level of quality and safety.

Additional Examinations

The 1998 Code does not rely on sampling and already examines 100% of containment surfaces. Therefore, elimination of this requirement is appropriate and acceptable.

Paint and Coatings

The IWE-2500(b) requirement to examine paint or coatings prior to removal has been eliminated from the 1998 Edition. Relief from this requirement has been found acceptable when adequate provisions exist either in the licensee's Containment Inspection, Repair/Replacement, Nuclear Coatings, or ISI Programs to examine the base metal for surface anomalies that could affect containment integrity prior to re-application of the coating. In addition, the base metal should be visually examined by qualified inspection personnel.

General visual examination of accessible surfaces, including coated surfaces, is performed using acceptance criteria that identifies coating deficiencies which could indicate degradation to the pressure boundary integrity. If coating is removed to perform visual examinations, the coatings will be reapplied under the appropriate plant coatings requirements. Prior to re-application a detailed visual examination of the base material will be performed. The licensee has also added steps to procedures to ensure notification of the Responsible Engineer when degradation of the containment liner or coating is observed. This will ensure that examinations of the containment pressure boundary are performed prior to removal of coatings by mechanical means that could remove evidence of surface degradation and prior to re-application of the coating. Therefore, the INEEL staff concludes that the licensee has included adequate provisions to ensure the integrity and compatibility of the paint, coatings, and liner plate, and that the licensee's proposed alternative provides an acceptable level of quality and safety.

Weld Examinations

Subsection IWE, 1998 Edition, has been revised and no longer contains any specific weld examination requirements. This approach is supported by 10 CFR 50.55a(b)(2)(x)(C), which makes the examinations specified in Examination Category E-B, *Pressure Retaining Welds*, and Examination Category E-F, *Pressure Retaining Dissimilar Metal Welds*, optional. Therefore, weld examinations will be addressed during the general visual examination required by Examination Category E-A. Based on

the optional nature of the Regulatory requirements for containment welds, the elimination of any direct reference to containment weld examinations in the Code should be considered to provide an acceptable level of quality and safety.

Bolting, Seals, Gaskets, and Moisture Barriers

Examination Category E-D, *Seals, Gaskets, and Moisture Barriers*, and Examination Category E-G, *Pressure Retaining Bolting*, have been eliminated from the 1998 Code. The examination of pressure-retaining bolting and moisture barriers are now included in Examination Category E-A, footnote (1)(d) and Item E1.30, respectively. The NRC staff has determined that verification of leak-tight integrity through Appendix J testing also verifies the integrity of bolted connections, seals and gaskets. Regarding the condition of bolted connections, the NRC staff has established a technical position that requires all accessible bolted connections to be visually examined each inspection period per the requirements of the 1998 Edition of IWE, Table IWE-2500-1, Category E-A. This corresponds to an examination of all bolted connections three times per inspection interval. In addition, licensees shall perform a general visual examination (VT-3 or equivalent) on the exposed portions of the connection. Bolted connections need not be disassembled solely for the performance of VT-3 examinations. If the general visual examination indicates possible areas of degradation or damage, a detailed visual examination (VT-1 or equivalent) is required. If potentially degraded bolting is assembled, the bolted connection shall be disassembled to facilitate the detailed examination. Furthermore, if a bolted connection is disassembled at the time of periodic inspection, all accessible surface areas of the connection shall be visually examined [general (VT-3), or detailed (VT-1), if necessary]. If a connection is disassembled at times other than periodic (or planned) inspection and is not examined by a qualified visual examiner before reassembly, written maintenance procedures shall be followed to ensure that the integrity of reassembled bolted connections are maintained. The written procedures shall include acceptance criteria for the continued use of all parts of the connections including bolts, studs, nuts, bushings, washers, threads in base material and flange ligaments between fastener holes.

In response to the NRC's original request for additional information the licensee stated that they have reviewed and concur with the NRC technical position on visual examination of bolting. In addition, in a second response dated August 29, 2000, the licensee committed to the conditions as outlined in the NRC technical position.

Based on the statements above, the INEEL staff concludes that the licensee's containment inspection program is consistent with the NRC position. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety in this area.

Ultrasonic Examination

In Paragraph IWE-3511.3, of the 1998 Code, examination of Class CC metallic liners has been excluded from the acceptance criteria, which requires disposition of areas where material loss exceeds 10% of the nominal wall thickness. Therefore, the 1998 Code is not acceptable for Class CC metallic liners without augmentation by the licensee. Per information provided by the licensee, the ultrasonic examinations specified by IWE-3511.3 will apply to Class CC components as well as to Class MC components. This is equivalent to the requirements of the 1992 Addenda. Therefore, the INEEL staff concludes that the proposed acceptance criteria for wall thinning will ensure that the integrity of the liner plate is maintained and will provide an acceptable level of quality and safety.

In summary, the licensee has proposed to use the 1998 Edition of Section XI, Subsection IWE, in lieu of the 1992 Edition with the 1992 Addenda as required by 10 CFR 50.55a(g)(6)(ii)(B). Review and evaluation of Subsection IWE of the 1998 Code has exposed several areas that do not provide an equivalent level of quality and safety. Consequently, the 1998 Edition cannot be considered an acceptable alternative to existing Regulatory requirements. However, in a conference call held on August 10, 2000 and by letters dated May 8, 2000, August 18, 2000, and August 29, 2000, the licensee provided further information and committed to supplement the requirements of the 1998 Code. Based on the above evaluation, it is concluded that the use of Subsection IWE of the 1998 Code, as supplemented by the licensee, provides an acceptable level of quality and safety. Therefore, it is recommended that the licensee's proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(i).

2.2 Requests for Relief I2R-39 (Byron), and CR-34 (Lasalle), Proposed Alternative to Use ASME Section XI, 1998 Edition, Subsection IWL, for Examination of Class CC Concrete Components

Code of Federal Regulation Requirement: 10 CFR 50.55a(g)(6)(ii)(B) requires that licensees implement the inservice examinations specified in Subsection IWL of the 1992 Edition with the 1992 Addenda of Section XI, Division 1, of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code).

Licensee's Proposed Alternative: In accordance with 10 CFR 50.55a(a)(3)(i), the licensee proposed to use the requirements of the 1998 Edition of ASME Section XI for the examination requirements for IWL components. The licensee stated:

"As an alternative to the requirements of the ASME Code, Section XI, 1992 Edition with the 1992 Addenda Subsection IWL, (Byron Station) (LaSalle County Station) will implement the requirements of the ASME Code, Subsection IWL in conjunction with the supplemental proposed alternatives listed in Table (I2R-39.1) (CR-34.01). The supplemental proposed alternatives [Appendix C of this report] further define our visual examination program and are consistent with other Code visual examinations. Table (I2R-39.1) (CR-34.01) details the changes between the 1992 Edition with the 1992 Addenda of the ASME Code, Section XI, Subsection IWL, significance of each change, and a basis for use as an alternative examination.

Licensee's Basis for Proposed Alternative (as stated):

"The 1992 Edition with the 1992 Addenda of Subsection IWL contains requirements that impose difficulties in the transition from the current In-Service Inspection (ISI) program to a program that includes containment examinations. Development and implementation of a meaningful containment ISI program would be facilitated by adopting the examination requirements detailed below. These alternative examinations provide for consistency with the existing programs in the definition of visual examination methods and in the qualification of visual examination personnel as well as providing more practical requirements for the performance and scheduling of examinations.

"Some [of the]¹ specific difficulties imposed by the 1992 Edition, 1992 Addenda of Subsection IWL [is] are as follows.

"Paragraphs IWL-2310 and IWA-2210 require specific minimum illumination and maximum direct examination distances for concrete examinations. Inaccessibility of higher [elevation] areas [such as the higher cylindrical concrete surfaces, both inside and outside of the Auxiliary Building,] make it difficult to meet the maximum direct examination distance and minimum illumination requirements. Installation of extensive temporary scaffold systems or a climbing scaffold system to access these portions of the containment would be necessary. These scaffolds would provide limited access due to containment geometric restrictions as well as structural and equipment interference. The installation and removal of these scaffold systems would increase both worker radiation exposure and personnel safety in order to meet IWA-2210 requirements.

"The proposed relief is to utilize the 1998 Edition of the ASME Code, Section XI, Subsection IWL, in its entirety. Utilizing the 1998 Edition of the ASME Code, Section XI, Subsection IWL, provides more continuity than could be achieved by requesting relief on several individual subjects separately. The updating of requirements to the 1998 Edition of the ASME Code, Section XI, Subsection IWL, will maintain the same level of assurance concerning the continued leak tightness and structural integrity of concrete containment components as compliance with the 1992 Code. The overall level of plant quality and safety will not be adversely affected by utilizing the requirements of the 1998 ASME Code. A detailed evaluation and line comparison of the differences between the 1992 Edition with 1992 Addenda of Subsection IWL and the 1998 Edition of the ASME Code, Section XI, Subsection IWL, is included as Table (I2R-39.1) (CR-34.01) of this relief request.

"Approval of this relief request at this time would reduce the overall impact to both Commonwealth Edison (ComEd) Company and NRC resources by avoiding the incorporation of the 1992 edition and addenda of Subsection IWL and a series of relief requests to address specific hardships."

Evaluation: 10CFR50.55a(g)(6)(ii)(B) requires that licensees perform the inservice examinations which are specified in Subsection IWL of the 1992 Edition with the 1992 Addenda, corresponding to the number of years of plant operation. The licensee is proposing to implement the 1998 Edition of Section XI, Subsection IWL in lieu of the 1992 Edition and Addenda. The licensee prepared and submitted a table comparing both Code Editions. The INEEL staff has reviewed the licensee's submittal and Subsection IWL of the 1998 Code and compared it with the 1992 Edition, 1992 Addenda. Appendix B of this report contains a comparison table, including the licensee's statements regarding the significance of Code changes and their basis for use as an alternative examination. The table also includes INEEL comments on each change. Significant differences were noted in the areas of personnel qualification and visual examination procedure qualification. Each of these issues will be discussed below.

1 Minor non-technical differences exist between the Licensees Basis for Proposed Alternative found in Requests for Relief I2R-39 and CR-34. These differences are noted with brackets [].

Personnel Qualification

The 1992 Addenda incorporates ANSI/ASNT CP-189 for the qualification of examination personnel. Subsection IWL of the 1998 Edition, takes exception to the certification requirements of the remainder of the Code and invokes plant-specific personnel certification requirements for visual examination. By deleting the VT-1C and VT-3C visual examinations, replacing them with the general and detailed visual examinations, and excluding the personnel qualification requirements of IWA-2300, NDE personnel are not needed to perform containment visual examinations. Subsection IWL of the 1998 Edition relies on the Responsible Engineer to direct the containment visual examinations. The INEEL staff believes that this approach has the potential for substantial inconsistency with respect to containment ISI. For this reason, the 1998 Edition does not provide an acceptable level of quality.

However, the licensee's qualification of examination personnel for detailed and general visual examinations will be equivalent to the requirements for VT-1 and VT-3, respectively, per the ComEd Written Practice. ComEd's written practice is comparable the requirements of ANSI/ASNT CP-189 in accordance with the 1992 Edition with 1992 Addenda of American Society of Mechanical Engineers (ASME) Boiler and Pressure (B&PV) Code, Section XI. The INEEL staff concludes that the licensee's containment inspection program parallels, or meets the intent of, the 1992 Edition with the 1992 Addenda for examination personnel qualification requirements. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety in this area.

Visual Examination

The 1992 Edition with 1992 Addenda, Subsection IWL, used VT-1C and VT-3C to designate visual examinations to be performed on concrete containment structures. In addition, minimum illumination, maximum direct examination distance, and procedure demonstration using specified lower case character height are required by IWA-2210. The licensee's proposed alternative (1998 Edition) takes exception to the IWA-2210 requirements for visual examination. Consequently, new Code examinations (general visual and detailed visual) have been introduced. The definition of these new Code examinations has been left up to individual licensees. The INEEL staff considers this change to be inconsistent with other Code visual examination prerequisites, and too generic in nature. Therefore, specific details pertaining to the Containment Inspection Program at ComEd are required in order to establish an acceptable level of quality and safety in the proposed alternative.

For the Byron and LaSalle Units, the licensee has provided acceptance criteria for the general and detailed visual examinations and include a determination by the Responsible Engineer of indications as noted in IWL-2320. The licensee provided information that describes a containment inspection program that parallels, and meets the intent of, the 1992 Edition, with the 1992 Addenda. The general and detailed visual examinations have been developed that are essentially equivalent to VT-3 and VT-1 examinations for assessing containment integrity. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety.

For the Byron and LaSalle Units, the licensee has provided information relating to the acceptance criteria for the general and detailed visual examinations, with procedures that follow the guidance of ACI 201.1 and ACI 349.3R. ComEd's procedures follow a tiered approach for the recording of concrete degradation. If the recording criteria is exceeded further review by the Responsible Engineer consistent with IWL-3211 is required.

The licensee provided information that describes a containment inspection program that parallels, and meets the intent of, the 1992 Edition, with the 1992 Addenda. The general and detailed visual examinations have been developed that are essentially equivalent to VT-3 and VT-1 examinations for assessing containment integrity. Therefore, it is concluded that the licensee's proposed alternative provides an acceptable level of quality and safety.

The licensee has proposed to use the 1998 Edition of Section XI, Subsection IWL, in lieu of the 1992 Edition with the 1992 Addenda as required by 10 CFR 50.55a(g)(6)(ii)(B). Review and evaluation of Subsection IWL of the 1998 Code has revealed several areas that do not appear to provide an equivalent level of quality and safety when compared to the 1992 Addenda. Consequently, the 1998 Edition should not be considered an acceptable alternative to the Regulatory requirements without supplemental information from the licensee. However, in letters dated May 8, 2000, August 18, 2000, August 29, 2000 and in a conference call on August 10, 2000 the licensee provided specific information and committed to supplement the requirements of the 1998 Code. Based on the above evaluation, it is concluded that the use of Subsection IWL of the 1998 Code, as supplemented by the licensee, provides an acceptable level of quality and safety. Therefore, it is recommended that the licensee's proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(i).

3.0 CONCLUSION

Based on the review of the proposed alternatives to IWE and IWL Containment Inspections and commitments included in the licensee's response to the NRC's request for additional information, it is concluded that for Relief Requests I2R-38, I2R-39, MCR-02, CR-33 and CR-34, the intent of the Regulations will be satisfied at Byron Station, Dresden Nuclear Power Station, and LaSalle County Station. The licensee's proposed alternative, to use the 1998 Edition of Subsection IWE and IWL as supplemented by specific details contained in the ComEd Containment Inspection Program, will provide an acceptable level of quality and safety and should be authorized pursuant to 10 CFR 50.55a(a)(3)(i).

**APPENDIX A
BYRON STATION
DRESDEN NUCLEAR POWER STATION
LASALLE COUNTY STATION
IWE COMPARISON TABLE**

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-1000	No Change	n/a	
IWE-1100	Deleted "the rules and" and ",repair, and replacement".	Non significant	
IWE-1200	No Change	n/a	
IWE-1210	No Change	n/a	
IWE-1220	(a) Deleted "that are: and changed "containment" to "containment system." (c) ASME XI generic change from repair and or replacement to repair/replacement activities. (d) Changed "rules" to "requirements."	Non significant	Acceptable
IWE-1230	No Change	n/a	
IWE-1231	Removed paragraph IWE1231(a)(3) "single welded butt joints from the weld side;"- eliminating accessibility requirements for embedded single sided butt joints.	Weld specific examinations required by Examination Categories E-B and E-F are optional in accordance with 10 CFR 50.55a(b)(2)(x)(C). Weld Examination Categories E-B and E-F have been removed in the 1998 Edition. The 1998 Edition contains examination requirements for pressure boundary welds under Examination Category E-A and IWE-1231 and IWE-1232 provide accessibility requirements for the pressure-retaining boundary. Therefore, the '98 Edition provides examination requirements for pressure boundary welds where the 1992 Edition examination requirements were optional. This change is consistent with current regulations which considers examination of pressure boundary welds optional.	Examination of welds is optional in 10 CFR 50.55a – Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
	<p>(4) Changed wording from "80% of the surface area defined in Table IWE-2500-1, "Examination Category E-A," to "80% of the pressure retaining boundary (excluding attachments, structural reinforcement, and areas made inaccessible during construction)."</p> <p>(4)(b) Reworded from "is not from the outside surface: to "is the interior surface."</p>	<p>Exclusion of these areas from "80% of the pressure retaining boundary: does not reduce inspection requirements. Per Table IWE-2500-1, "Examination Category E-A of the 1998 Edition," structural attachments and the reinforcing structure are examined each inspection period. These examination requirements will assure containment integrity.</p> <p>Non Significant</p>	Acceptable
IWE-1232	ASME XI generic change from repair and/or replacement to repair/replacement activities.	Non significant	Acceptable
	Deleted paragraph (a)(3) "all weld joints that are not double butt welded remain accessible for examination from the weld side" - eliminating accessibility requirements for embedded single sided butt joints.	See IWE-1231 above	Examination of welds is optional in 10 CFR 50.55a – Acceptable
IWE-1241	<p>(a) Added "stiffeners."</p> <p>Added paragraph (c) "interior and exterior containment surface areas identified in accordance with IWE-2420(b)." -by reference to IWE-2420, flaws accepted by evaluation are areas requiring augmented examination.</p>	<p>The additional areas subject to augmented examination further assure containment integrity.</p> <p>This is a conservative change. The additional areas subject to examination further assure containment integrity.</p>	Appears to be a conservative change – Acceptable
IWE-1242	Revised paragraph reference from "IWE-2500(c)" to "IWE-2500(b)."	This is a reflection of paragraph renumbering due to changes discussed below under IWE-2500.	
IWE-2000	No Change	n/a	

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-2100	Added new Subarticle 2100 - "General" - to provide reference to IWA-2000 with exceptions from IWA-2210, -2300, -2500 and -2600.	<p>The exceptions provided are significant in that related requirements have been incorporated into IWE-2300. The IWE-2300 requirements are consistent with the examination requirements of Subsection IWE, which are unique to the inspection of containment structures and components.</p> <p>IWA-2210-IWE examinations do not utilize the visual examination methods (VT-1, VT-2, and VT-3) identified in IWA-2310. Requirements for the General Visual and Detailed Visual exam methods utilized by IWE are defined in IWE-2310. The 1998 Edition allows the owner to define the requirements for visual examinations.</p> <p>IWA-2300-Personnel will not have to be certified to ASNT CP-189. The 1998 Edition allows the owner to define the qualification requirements of inspection personnel.</p> <p>IWA-2500-Excludes repair welds from the requirements of examination.</p> <p>IWA-2600-requires that a weld reference system be established for surface or volumetric examinations. IWE only requires volumetric examination of augmented examination areas. A grid system is established for these areas in accordance with IWE-2500.</p>	<ul style="list-style-type: none"> • IWE examinations will not require the visual examinations identified in IWA-2210. • Per the 1998 Code, personnel will not have to be certified to CP-189 (IWA-2300)-Licensee has committed to certify inspection personnel to a program developed in accordance with the guidelines of CP-189. • IWA-2500 excludes repair welds from the requirements of examination. • IWA-2600 requires that a weld reference system be established for surface or volumetric examinations. However, IWE-2500(c)(4) requires reproducible grid markings for augmented ultrasonic thickness measurement. Details in appropriate sections below.
IWE-2200	Deleted paragraph c) which provided allowances for the use of shop or field examinations in lieu of on site preservice examinations.	The deletion of an allowance for an alternative examination ensures that proper pre-service examinations are performed and documented.	Appears to be a conservative change – Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
	Deleted paragraph g) which required the condition of new coating to be documented in the preservice examination record.	The preservice examination is still required to be performed in accordance with IWE-2200. The deletion of the requirement to document the condition of "new" non-pressure retaining coatings in the preservice examination record provides for more efficient program implementation without affecting component integrity.	See the discussion under Paragraph 2500 for additional discussion on ComEds coating program.
	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	Acceptable
IWE-2300	Added new Subarticle -2300 -"Visual Examination, Personnel Qualification and Responsible Individual"	The paragraphs within this subarticle are considered significant and contain requirements that either did not previously exist or that were contained in other areas. The specific paragraphs added are discussed below.	See below.

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-2310	<p>Added new paragraph 2310 - Visual Examinations: (a) states that the owner shall define requirements for visual examination of containment surfaces; (b) and (c) defines general and detailed visual examinations; and (d) and (e) provides the requirements for the conditions of areas affected by repair/replacement activities, painted or coated areas, non coated areas, pressure retaining materials and moisture barriers.</p>	<p>This presents a significant change by allowing the owner to define acceptance criteria and examination conditions. The VT-1 and VT-3 inspections have been replaced by owner defined general and detailed visual examinations respectively. However, the definition of critical examination items and the list of critical examination attributes have not changed. The 1998 Edition provides specific examples of unacceptable conditions in IWE-2300 that were previously contained in IWE-3500. The general and detailed visual examinations are essentially equivalent to the VT-1 and VT-3 examinations in terms of addressing the structural integrity and potential degradation of containment. The use of owner defined examination methods allows for the involvement of qualified engineering personnel with backgrounds in areas such as containment coatings, Maintenance Rule, 10 CFR 50 Appendix J, containment design, materials engineering and containment degradation mechanisms. In order to ensure the general and detailed visual examination methods provide an acceptable level of quality and safety, supplemental proposed alternatives have been developed.</p>	<p>Consistency with existing ISI visual examination requirements provide for an efficient internal program, coupled with the program established by ComEd should provide uniformity and consistency industry wide. 1998 Code with specific details from the licensee is acceptable.</p> <p>There are no acceptance criteria specified since the proposal maintains owner defined examination requirements. 1998 Code is unacceptable. The licensee has provided specific acceptance criteria for general and detailed visual examinations – Acceptable</p> <p>There are no acceptance criteria specified since the proposal maintains owner defined examination requirements. 1998 Code is unacceptable. The licensee has provided specific acceptance criteria for general and detailed visual examinations – Acceptable</p>

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE			
Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-2320	Added new paragraph 2320 - Responsible Individual: (a) States the qualification requirements of the responsible individual; and (b) Defines the responsibilities of the responsible individual for the development of plans and procedures; instruction, training and approval of visual examination personnel; performance or direction of visual examinations; evaluation of results and documenting results.	The details for the responsible individual qualification requirements were previously contained in the acceptance standards of IWE-3510.1. In addition, specific responsibilities have been defined. Having an individual possessing the qualifications of (a) and performing the responsibilities of (b) increase plant quality and safety by assuring the reliable detection of conditions adverse to containment integrity.	Acceptable The duties identified must be performed regardless of who is assigned to do them. However, the 1998 philosophy gives the responsible individual complete control over the Program. Section XI consistency maintains that licensee containment programs meet the requirements of Subsection IWA.
IWE-2330	Added new paragraph 2330 - Personnel Qualification: (a) States that the owner is responsible for defining the qualification requirements for personnel performing visual examinations and (b) Provides minimum qualification requirements that were previously contained in the acceptance criteria of IWE-3510.1.	This presents a significant change by allowing the owner to define qualification requirements for personnel performing visual examinations. Personnel will not have to be certified to ASNT CP-189.	Personnel should be qualified in accordance with Subsection IWA. 1998 Code is unacceptable. The licensee provided specific details on personnel qualification - Acceptable 1998 Code is unacceptable without licensee augmentation. 10 CFR 50.55a(b)(x)(B) requires the qualification of remote visual examinations. Licensee provided qualification requirements for direct and remote visual examinations – Acceptable.
IWE-2400	INSPECTION SCHEDULE		
IWE-2410	No Change	n/a	
IWE-2411	Deleted a subparagraph (b) discussing decreasing and extending inspection periods under Inspection Program A.	The deleted subparagraph eliminates duplication with IWA-2400.	Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-2412	Deleted a subparagraph (b) discussing decreasing and extending inspection periods. Added a subparagraph (b) detailing requirements for the scheduling of added welds or components.	The deleted subparagraph eliminates duplication with IWA-2400. The added requirements for the scheduling of added welds or components ensures that a representative sampling of examinations is maintained. It is unlikely that components would be added to the IWE inspection program. However, if items were added for any reason the 1998 Edition of IWE-2412(b) provides requirements where none previously existed.	Acceptable
IWE-2420	<p>Generically changed "flaws, areas of degradation, or repairs" to "flaws or areas of degradation" - removes repaired areas as areas requiring reexaminations during successive inspection periods.</p> <p>Changed "remain essentially unchanged for three consecutive inspection periods ... no longer require examination" to "remain essentially unchanged for the next inspection period ... no longer require examination" - revises the number of successive inspection periods in which reexaminations are performed.</p>	<p>Repaired areas that are likely to experience accelerated degradation and aging are already subject to augmented examinations per IWE-1241. Some repairs may be located in non-augmented areas and may be necessary to correct physical damage caused by construction or craft activities. Not having to repeat examinations of these non-augmented repaired areas provides for more efficient program implementation without adversely affecting component integrity.</p> <p>The requirement to reexamine suspect areas during three successive inspection periods has been revised and is now consistent with Class 2 inspection requirements. This change does not limit augmented examinations beyond two successive inspection periods. When conditions which cause degradation still exist after completion of two examinations during successive inspection periods, applicable areas may be subjected to augmented inspections during successive inspection periods.</p>	Changing duration of reexamination of areas that remain essentially unchanged from " <i>three consecutive inspection periods</i> " to " <i>the next successive inspection period</i> " is consistent with the requirements for Class 2 components -- Acceptable.

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-2430	Deleted the paragraph - Additional Examinations* - which discussed adding examination items of the same category if flaws or areas of degradation are identified during an examination.	The changes to Table IWE-2500-1 eliminate several examination categories. The categories that remain all require 100% examination. Therefore no items are available for additional examinations.	The 1998 Code does not rely on sampling as 100% of the containment surface is already examined. Therefore, elimination of this requirement is appropriate -- Acceptable.
IWE-2500	Reworded the existing subparagraphs consistent with the previous paragraph changes and with Table IWE-2500-1 changes.	The reworded subparagraphs add clarity and provide consistency within IWE.	Acceptable
	Deleted the requirement to examine paint or coatings prior to removal.	Not having to perform ASME examinations of non-pressure retaining coatings prior to removal provides for more efficient containment ISI program implementation without adversely affecting the integrity of the pressure retaining base metal being exposed. The supplemental proposed alternatives ensure containment integrity	1998 Code is unacceptable. Elimination of the paint or coatings exam prior to removal has been found acceptable provided adequate provisions exist in the licensee's program to examine the base metal prior to re application of the coating. Licensee has addressed base metal examinations – Acceptable
	Replaced the requirement for one foot square grids in thickness measurements with a reference to Table IWE-2500-2.	The new Table IWE-2500-2 provides more detailed requirements for thickness measurement grid lines and is discussed below.	The ultrasonic gridline approach is a sampling methodology similar to that of other portions of the Code and other erosion/corrosion monitoring programs utilized throughout the industry -- Acceptable.
	Added a reference to IWE-5000 for pressure tests.	The added reference to IWE-5000 provides direction for the performance of pressure test.	Acceptable
IWE-2600	Deleted a sentence discussing compatibility of paint and coating systems and a requirement to examine the new paint.	The ComEd Coating program specifically addresses application and examination of coatings. The removal of this sentence addressing "new" non-pressure retaining paint and coatings provides for more efficient containment ISI program implementation without adversely affecting component integrity.	Elimination of this sentence considered acceptable when covered by existing nuclear coatings program.
IWE-3000	ACCEPTANCE STANDARDS	n/a	

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-3100	Removed "nondestructive" from the heading	Non significant	Consistent with IWB and IWC wording -- Acceptable
IWE-3110	PRESERVICE EXAMINATIONS	n/a	
IWE-3111	Replaced the reference to Table IWE-3410-1 with a reference to Subarticle IWE-3500. Removed reference to paragraph IWE-3115.	Table IWE-3410-1 and paragraph IWE-3115 have been deleted and are discussed below. IWE-3500 adequately captures all of the information previously contained in the deleted table and paragraph.	Under the 1998 scheme, Table IWE-3410-1 probably isn't necessary because there are only two examination categories and the acceptance criteria are specified in Table IWE-2500-1. Acceptable
IWE-3112	Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500. Revised reference to IWA-6220 with a reference to IWA-6230. ASME XI generic change from repair and or replacement to repair/replacement activities, generically changed "Components" to "A component", and "reveals" to detects."	Table IWE-3410-1 and paragraph IWE-3115 has been deleted and is discussed below. IWE-3500 adequately captures all of the information previously contained in the deleted table and paragraph. Non significant - preparation of a Form NIS-1 (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230). Non significant	Same as above
IWE-3114	Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500. ASME XI generic change from repair and or replacement to repair/replacement activities	Table IWE-3410-1 has been deleted and is discussed below. IWE-3500 adequately captures all of the information previously contained in the deleted table and paragraph. Non significant	Same as above.
IWE-3115	Deleted subparagraph which addressed repair programs and evaluations being subject to review by authorities.	ASME Section XI documentation is maintained and is "subject to review" at any time. Deletion of subparagraph IWE-3115 does not alter quality assurance requirements for the retention of ASME Section XI documents.	The Regulations do not require the licensees to submit their containment inspection programs -- Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-3120	Removed "nondestructive" from the heading.	Non significant	Consistent with IWB and IWC --Acceptable
IWE-3121	<p>Removed "nondestructive" from the paragraph.</p> <p>Deleted references to IWE-3124 and IWE-3125 for the acceptance of flaws for continued service.</p>	<p>Non significant.</p> <p>The referenced subparagraphs did not actually apply to the acceptance of flaws for continued service.</p>	Acceptable
IWE-3122	<p>Replaced the reference to Table IWE-2500-1 and to IWE-3000 with a reference to subarticle IWE-3500.</p> <p>Deleted sentence which addressed evaluations being subject to review by authorities.</p> <p>Revised reference to IWA-6220 with a reference to IWA-6230.</p> <p>Deleted reference to additional examination requirements of IWE-2430.</p> <p>Reworded several sentences.</p> <p>ASME XI generic change from repair and or replacement to repair/replacement activities.</p>	<p>Non significant - the changes are for clarity and to reconcile paragraph numbering.</p> <p>ASME Section XI documentation is maintained and is "subject to review" at any time. Revision of subparagraph IWE-3122 does not alter quality assurance requirements for the retention of ASME Section XI documents.</p> <p>Non significant - preparation of a Form NIS-1 (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230).</p> <p>IWE-2430 has been deleted and is discussed above</p> <p>Non significant</p> <p>Non significant</p>	Consistent with IWB and IWC -- Acceptable
IWE-3124	<p>Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500.</p> <p>ASME XI generic change form repair and or replacement to repair/replacement activities</p>	<p>Table IWE-3410-1 has been deleted and is discussed below. IWE-3500 adequately captures all of the information previously contained in the deleted table and paragraph.</p> <p>Non significant</p>	Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-3125	Deleted subparagraph which addressed repair programs and reexamination results being subject to review by authorities.	ASME Section XI documentation is maintained and is "subject to review" at any time. Deletion of subparagraph IWE-3125 does not alter quality assurance requirements for the retention of ASME Section XI documents.	Acceptable
IWE-3130	Changed "Components" to "A component", and "reveals" to detect."	Non significant	
IWE-3200	Added a statement "when specified as a result of the engineering evaluation performed in IWE-3122.3." Requires supplemental surface or volumetric examinations when specified by the engineering evaluation.	The added statement clarifies requirements and eliminates potential duplication or contradiction of requirements in stating that the engineering evaluation requirements of IWE-3122 determine what and when supplemental examinations are required.	Acceptable
IWE-3400	No Change	n/a	
IWE-3410	Replaced the reference to Table IWE-3410-1 with a reference to Subarticle IWE-3500.	Table IWE-3410-1 has been deleted and is discussed below. IWE-3500 adequately captures all of the information previously contained in the deleted table and paragraph	Acceptable
IWE-3430	No Change	n/a	
IWE-3500	ACCEPTANCE STANDARDS	n/a	
IWE-3510	Reconciled acceptance standards with the IWE-2300 changes discussed above and the Table IWE-2500-1 changes discussed below by: Adding the requirement that the owner shall define acceptance criteria for visual examination of containment surfaces;	Previously examination requirements were contained in the acceptance standards of IWE-3500. This section has been restructured by the addition of IWE-2300 as discussed above. This change directly corresponds to the addition of IWE-2310(a) discussed above.	Owner defined visual examination requirements do not provide uniformity and consistency industry wide. 1998 Code is unacceptable without specifics provided by licensee. Specifics have been provided by the licensee. – Acceptable.

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
	Removing the wording for responsible individual and for personnel qualifications;	This change directly corresponds to the addition of IWE-2320 discussed above.	Acceptable
	<p>Combining IWE-3510.2 and IWE-3510.3 and removing specific VT-1 and VT-3 examination attribute wording; and</p> <p>Incorporating IWE-3511, IWE-3513, IWE-3514 and IWE-3515 with changes into IWE-3510.</p> <p>By the incorporation of 3515 the acceptance standards for bolting were changed from referencing material specs and torque or tension limits to conditions affecting leak tight or structural integrity.</p>	<p>These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above.</p> <p>These changes correspond to the changes in the examination categories of Table IWE-2500-1 as discussed below and to the removal of examination requirements for the acceptance standards paragraphs per the addition of IWE-2310(e)(3) and (4) as discussed above.</p> <p>The resulting acceptance standards for bolting provide for more practical containment ISI program implementation without adversely affecting containment leak tight or structural integrity</p>	<p>Acceptable</p> <p>The examination of bolting, seals and gaskets to determine their ability to maintain containment leak tight integrity as a separate inspection is considered unnecessary. The Appendix J, Type A test is considered sufficient for determining the leak-tight integrity of the penetration – Acceptable</p>
IWE-3511	Deleted subparagraph which addressed examination category E-B.	Examination category E-B has been incorporated into examination category E-A per the changes to Table IWE-2500-1 discussed below.	Owner defined acceptance criteria do not provide consistency through out the industry. Therefore, the 1998 Code is unacceptable. ComEd has provided those specifics. – Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-3512	<p>Renumbered subparagraph to IWE-3511. Reconciled acceptance standards with the IWE-2300 changes discussed above and the Table IWE-2500-1 changes discussed below.</p> <p>Added the requirement that the owner shall define acceptance criteria for visual examination of containment surfaces;</p> <p>Removed "acceptance by engineering evaluation or corrected by repair/replacement activities in accordance with IWE-3122." from IWE-3511.2 of the '98 Edition.</p> <p>Combined IWE-3512.2 and IWE-3512.3 with changes into 3511.2 and removed specific VT-1 examination attribute wording; and</p> <p>Changed "Containment vessel examination" to "Examinations of Class MC pressure retaining components" and reworded paragraph.</p>	<p>The subparagraph was renumbered based on the deletion of previous IWE-3511 as discussed above. Previously examination requirements were contained in the acceptance standards of IWE-3500. This has been corrected by the addition of IWE-2300 as discussed above.</p> <p>This change directly corresponds to the addition of IWE-2310(a) discussed above.</p> <p>The requirements of IWE-3122 for acceptance by repair/replacement or engineering evaluation applies to components not meeting the acceptance standards of IWE-3500, including Examination Category E-C.</p> <p>These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above and eliminate potential duplication or contradiction of requirements.</p> <p>Change does not revise the applicability of the paragraph</p>	Based on Regulatory requirements excluding containment welds, the elimination of any direct references to containment weld examinations in the Code – Acceptable
IWE-3513	Deleted subparagraph IWE-3513, 3514 and 3515 that addressed examination categories E-D, E-F, and E-G respectively.	Examination categories E-D, E-F and E-G have been incorporated into examination category E-A per the changes to Table IWE-2500-1 discussed below.	
IWE-4100	No Change	n/a	
IWE-5000	No Change	n/a	
IWE-5200	No Change	n/a	

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
IWE-5210	No Change	n/a	
IWE-5220	ASME Code Section Xi generic change from repair and or replacement to repair/replacement activities	Non significant	Acceptable
IWE-5221	Removed the quotation of 10 CFR 50 Appendix J paragraph IV.A.	Non significant - meeting the requirement of the referenced 10 CFR 50, Appendix J paragraph referenced is not affected by removing the quoted Appendix J paragraph	Acceptable
	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	Acceptable
IWE-5222	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	Acceptable
IWE-5240	Replaced a reference to IWA-5246 with requirements to perform detailed visual examination of repair/replacement areas during pressure tests.	The reference to IWA-5246 is not valid since IWA-5246 has been deleted. In lieu of referencing IWA-5240 general requirements, specific IWE examination requirements to perform detailed visual examination of repair/replacement areas during pressure tests provides consistency with the examination requirements specific to containment integrity and therefore provides added assurance of the integrity of repaired/replaced areas.	Acceptable
IWE-5250	Changed "Corrective Measures" to "Corrective Action" in the heading.	Non significant	Acceptable
	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	
IWE-7000	No Change	n/a	
IWE-7100	No Change	n/a	
TABLE CHANGES			

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
Table IWE-2411-1	No Change	n/a	
Table IWE-2412-1	Replaced the separate entries for 1 st and successive intervals with one entry for All intervals.	Non significant - The previous requirements for the 1 st and successive intervals were identical. Therefore, combining the entries does not affect any requirements.	Acceptable
Table IWE-2500-1 Examination Category E-A	Item E1.11 Revised frequency of examination from "prior to each type A test" to "100% during each period."	10 CFR 50.55a(b)(2)(x)(e) requires a general visual examination be performed once each inspection period. Therefore, this change is consistent with current regulations.	Conservative change. Appendix J, Option A, requires periodic (one each period) Type A tests. Appendix J, Option B, is based on historical performance and requires periodic visual inspection for Type A tests – Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
<p>Table IWE-2500-1</p> <p>Examination Category E-A (con't)</p>	<p>Item E1.12: Redesignated item from "accessible surface areas" to "wetted surfaces of submerged areas". Replaced examination method VT-3 with general visual.</p> <p>E1.20 Added BWR to item description Replaced examination method VT-3 with general visual.</p> <p>E1.30 Added item for moisture barriers with a general VT required each period.</p>	<p>Replacing the accessible surface area designation (which is included in E1.11) with wetted surface areas (which were previously included in E1.12 footnote 4) does not eliminate or reduce any required examination areas. Requiring a general visual in lieu of a VT-3 eliminates the more detailed visual examination of areas with satisfactory general visual results. The performance of the general visual will identify any areas of deterioration or distress. Any areas identified will then be subject to a detailed visual examination to determine the magnitude and extent of those conditions. The general visual therefore allows for more efficient containment ISI program implementation without adversely affecting containment integrity.</p> <p>Requiring a general visual in lieu of a VT-3 eliminates the more detailed visual examination of areas with satisfactory general visual results. The performance of the general visual will identify any areas of deterioration or distress. Any areas identified will then be subject to a detailed visual examination to determine the magnitude and extent of those conditions. The general visual therefore allows for more efficient containment ISI program implementation without adversely affecting containment integrity.</p> <p>Moisture barriers were previously included in examination category E-D with a VT-3 required each interval. Examining moisture more frequently will assure reliable detection of conditions adverse to containment integrity.</p>	<p>Acceptable with licensee provided general visual examination requirements and acceptance criteria.</p> <p>The change to general visual removes the emphasis on containment welds. - Acceptable</p> <p>Acceptable</p>

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
<p>Table IWE-2500-1</p> <p>Examination Category E-A (con't)</p>	<p>All item Numbers - Replaced reference to IWE-3510 for examination requirements with IWE-2310.</p> <p>Notes – Revised to specifically include welds and bolting as part of the pressure retaining boundary requiring examination.</p>	<p>Non significant - Previously some examination requirements were contained in IWE-3500. They now exist in IWE-2300 as discussed above.</p> <p>Welds and bolting were previously included in examination categories E-B, E-F and E-G. Including these items in the examination category for the containment pressure retaining boundary provides for more efficient program implementation without adversely affecting component integrity.</p>	<p>Acceptable</p> <p>Acceptable with licensee provided general visual examination requirements and acceptance criteria.</p>
<p>Table IWE-2500-1. CAT. E-B</p>	<p>Deleted examination category which addressed pressure retaining welds.</p>	<p>Weld specific examinations required by Examination Categories EB and EF are optional in accordance with 10 CFR 50.55a(b)(2)(x)(C). This change is consistent with current regulations which considers examination of pressure boundary welds optional. Pressure retaining welds are now included in examination category E-A as addressed above.</p>	<p>10 CFR 50.55a makes containment weld inspections optional – Acceptable</p>

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE			
Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
Table IWE-2500-1 Examination Category E-C Table IWE-2500-1	<p>Item E4.11: Replaced examination method VT-1 with detailed visual.</p> <p>Item E4.12: Added grid line intersections to description of parts examined. Changed examination method from volumetric to ultrasonic thickness.</p> <p>All item no.'s - Added examination requirement paragraph number references. Updated acceptance standard references.</p> <p>Notes - Changed note 2 from requiring augmented examination until an area remains unchanged for three consecutive inspection period. Deleted note 3 which discussed inspection deferrals.</p>	<p>Requiring a detailed visual in lieu of a VT-1 does not adversely affect the integrity of the containment components examined.</p> <p>The added wording clarifies inspection requirements and ensures repeatability in the location of subsequent thickness measurement points.</p> <p>Previously no references existed for examination requirements. These requirements have been added to IWE-2300 and IWE-2500 as discussed above. Adding new reference and updating paragraph numbers ensure proper requirements are applied to examinations.</p> <p>This is consistent with IWE-2420 discussed above. Three inspection periods cover a ten year interval. Performing augmented examinations for at least two periods while continuing general visual examinations each period provides for more efficient program implementation without adversely affecting component integrity. Deletion Note 3 is non significant.</p>	<p>Acceptable with licensee provided general visual examination requirements and acceptance criteria.</p> <p>The recommended ultrasonic gridline sample requirements provide a more practical approach to augmented container examinations – Acceptable</p> <p>Acceptable</p> <p>Change from three consecutive periods to one period consistent with the requirements for Class 2 components – Acceptable</p>
Table IWE-2500-1 CAT. E-D	Deleted examination category which addressed seals, gaskets and moisture barriers.	Moisture barriers have been included in examination category E-A as addressed above. Seals and gaskets previously required examination once per an interval with effectively an acceptance criteria of leak tightness. Leak tight integrity is verified during each 10 CFR 50 Appendix J leak test. Removing these inspection items provides for more efficient program implementation without adversely affecting component integrity.	Appendix J, Type A test considered sufficient for determining the leak-tight integrity. - Acceptable

APPENDIX A -- BYRON STATION UNITS 1 AND 2, DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3, AND LASALLE COUNTY STATION UNITS 1 AND 2 – IWE COMPARISON TABLE

Paragraph	Changes between IWE 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Comments
Table IWE-2500-1 CAT. E-F	Deleted examination category which addressed dissimilar metal welds.	Weld specific examinations required by Examination Categories EB and EF are optional in accordance with 10 CFR 50.55a(b)(2)(x)(C). This change is consistent with current regulations, which considers examination of pressure boundary welds optional. Dissimilar metal welds are now included in examination category E-A as addressed above	10 CFR 50.55a makes containment weld inspections optional – Acceptable
Table IWE-2500-1 CAT. E-G	Deleted examination category which addressed pressure retaining bolting.	Pressure retaining bolting is now included in Examination Category E-A as addressed above.	1992 required VT-1 visual of bolting when a connection was disassembled. The 1998 Edition requires general visual, in place, with no requirement when the joint is disassembled. Licensee has agreed to conditions as stated in the NRC position.
Table IWE-2500-1 CAT. E-P	Deleted examination category which addressed 10CFR50 Appendix J testing for all pressure retaining components.	10 CFR 50 Appendix J testing is mandated by plant technical specifications. Removing this duplicate requirements from IWE does not adversely affect component integrity.	Acceptable
Table IWE-2500-2	Added new Table IWE-2500-2 - Ultrasonic Thickness Measurements For Augmented Examinations - which details grids and thickness measurement requirements.	The new requirements provide for consistency and repeatability in obtaining thickness measurements and thus assure the reliable detection of conditions adverse to containment integrity.	Acceptable
Table IWE-3410-1	Deleted table.	Non significant - the contents of the previous table are adequately addressed in IWE-3500.	Acceptable

APPENDIX B
IWL COMPARISON TABLE

APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 -- IWL COMPARISON TABLE			
Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-1100	ASME Section XI generic wording change from repair, replacement and or modification terms to repair/replacement activities.	Non significant	None
IWL-1200	No Change	n/a	
IWL-1210	No Change	n/a	
IWL-1220	No Change	n/a	
IWL-2100	<p>Changed "Inspection" to "General" in heading.</p> <p>(a) Provided reference to IWA-2000 with exceptions from IWA-2210 and -2300 for visual examinations and for qualification of visual examination personnel.</p> <p>(b) Provided requirements for Authorized Nuclear Inservice Inspectors.</p>	<p>Non significant</p> <p>(a) The additional general requirements invoked by reference to IWA-2000 where none were referenced previously further assure containment integrity. Authorized Nuclear Inservice Inspector requirements are included into IWA-2120, which ensures proper Inspector qualification. The exceptions from IWA-2210 and IWA-2300 are significant in that the related previous requirements have been changed and incorporated into IWL-2310. The IWL-2310 changes are addressed below.</p> <p>Not addressed by licensee</p>	<p>IWL examinations will not require the visual examinations identified in IWA-2100. Personnel will not have to be certified to CP-189 (IWA-2300).</p> <p>Licensee has committed to certify inspection personnel to a program developed in accordance with the guidelines of CP-189. -- Acceptable</p> <p>Inspector responsibilities addressed in IWA - Acceptable</p>
IWL-2200	<p>No Change</p> <p>Delete reference to IWL 2500.</p>	<p>n/a</p> <p>The reference to IWL 2500 in the 1992 Edition was incorrect, and this non-significant change is associated with a subsequent inquiry.</p>	Acceptable
IWL-2210	No Change	n/a	
IWL-2220	No Change	n/a	

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-2230	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non-significant	Acceptable
IWL-2300	No change	n/a	
IWL-2310	(a) Replaced VT-1C and VT-3C visual examination terminology with new VT general and VT detailed examination terms.	<p>These changes are related to the IWL-2100 changes addressed above and are considered significant.</p> <p>(a) Containment examinations are intended to identify indications of significant conditions over large areas. The VT General Examination is performed to indicate the general structural condition for determining concrete deterioration and distress. The VT General Examination is performed to indicate the general structural condition for determining concrete deterioration and distress. The VT Detailed Examination is performed to determine the magnitude and extent of observed deterioration of concrete structure, examination of post tensioning systems and anchorage hardware and repaired/replaced concrete surfaces.</p>	Open-ended, owner defined visual examination requirements do not provide uniformity and consistency industry wide. 1998 Code is unacceptable and proposed alternative cannot be found acceptable without specific details from the licensee. The 1998 Code is unacceptable. Acceptable as supplemented by the licensee.
	(b) Replaced reference to IWA-2210 for illumination levels, examination distances and resolution requirements with specific examination attributes.	(b) Direct visual examination is not practical on all areas of containment surfaces. The previous VT requirements precluded the ability to demonstrate that remote visual examination was equivalent to direct visual examination. Providing specific examination attributes in IWL as opposed to referencing the generic requirements of IWA focuses the visual examination on areas important to the verification of containment integrity	Specific illumination and resolution details from the licensee's program should be provided. The 1998 Code is unacceptable, Acceptable as supplemented by the licensee.

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 –
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
	(c) Replaced reference to IWA-2300 for concrete examination personnel qualification requirements with provisions for the owner to define the examination personnel qualification requirements.	(c) Requiring an owner defined program provides for more efficient program implementation by permitting personnel performing containment examinations to be qualified to written practices that are more consistent to those used for other NDE personnel	Consistency with existing ISI visual examination requirements could provide for an efficient internal program. However, open-ended, owner-defined visual examination requirements do not provide uniformity and consistency industry-wide. The 1998 Code is unacceptable. Acceptable as supplemented by the licensee.
IWL-2320	<p>Changed wording slightly.</p> <p>Made the ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p> <p>Added a responsibility for the Responsible Engineer to review certain pressure test procedures.</p>	<p>Non significant - clarifies wording.</p> <p>Non significant</p> <p>The added pressure test responsibilities for the Responsible Engineer ensures proper performance of pressure testing activities.</p>	Acceptable
IWL-2400	No Change	n/a	
IWL-2410	<p>Licensee did not address.</p> <p>Added to (c) condition which allows for deferral of concrete visual exams to the next scheduled plant outage for inaccessible portions of concrete surface.</p>	This change insures that all surfaces that can be inspected are examined, but recognizes the personnel safety of the inspectors.	Acceptable, licensee agrees that credit for both intervals will not be taken.
IWL-2420	No Change	n/a	
IWL-2421	Changed wording for sites with more than one plant. Changed frequencies by adding "and every 10 years thereafter".	Non significant - clarifies wording and accommodates plant life extensions.	Acceptable
IWL-2500	No Change	n/a	Acceptable

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-2510	<p>Changed heading.</p> <p>Changed wording consistent with the changes to IWL-2310 addressed above</p> <p>Added two subparagraphs providing more detailed examination requirements for tendon anchorage areas.</p>	<p>Non significant.</p> <p>Non significant</p> <p>The added details ensure proper tendon anchorage area examinations</p>	Acceptable
IWL-2520	No Change	n/a	
IWL-2521	No Change	n/a	
IWL-2522	Changed the heading and added a subparagraph to address tendon elongation.	The added details ensure proper tendon examinations.	Acceptable
IWL-2523	No Change	n/a	
IWL-2524	Changed wording consistent with the changes to IWL-2310 addressed above.	Non significant	Acceptable with licensee provided general visual examination requirements and acceptance criteria.
IWL-2525	Changed wording for sample analysis.	Non significant.	Acceptable
IWL-2526	Added a subparagraph addressing replacement of corrosion protection medium.	The added details ensure tendon integrity	Acceptable
IWL-3100	No Change	n/a	
IWL-3110	No Change	n/a	
IWL-3111	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant.	Acceptable
IWL-3112	No Change	n/a	

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-3113	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant.	Acceptable
IWL-3120	No change.	n/a	
IWL-3200	No change.	n/a	
IWL-3210	Removed the word concrete from the heading.	Non-significant.	
IWL-3211	Added tendon end and anchorage areas to the scope of the subparagraph and added corrosion protection medium leakage and end cap deformation as acceptance criteria attributes. ASME Section XI generic change from repair and/or replacement to repair/replacement activities.	The added details ensure proper tendon examinations Non-significant.	Added clarification - Acceptable
IWL-3212	No change.	n/a	
IWL-3213	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non-significant.	
IWL-3220	No Change	n/a	
IWL-3221	Added acceptance criteria attributes for tendon elongation, free water contend and corrosion protection medium reduction	The added details ensure proper tendon examinations	Acceptable
IWL-3222	No Change	n/a	
IWL-3223	ASME Code Section XI generic change from repair and or replacement to replair/replacement activities.	Non significant.	

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-3300	No Change	n/a	
IWL-3310	Added applicability for other plants at the same site. ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant. Non significant.	Acceptable
IWL-3320	Deleted paragraph that addressed engineering evaluations being subject to review by authorities.	Non significant - there were no submittal or retention requirements changed by the deletion of the subparagraph.	Acceptable. The Regulations do not require the licensees to submit their containment inspection programs.
IWL-4000	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant - all related repair and replacement requirements have been consolidated into IWL-4000.	Acceptable
IWL-4100	No Change	n/a	
IWL-4110	Exempted grease cups and installation screws from the scope. ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant - the exempted items are non structural items. Non significant.	Acceptable
IWL-4200	ASME Section XI generic change from repair and/or replacement to repair/replacement activities.	Non significant.	Acceptable
-----	Added paragraph IWL-4210 to require Repair/Replacement Plans to be developed under the direction of a Responsible Engineer.	This added requirements ensure proper repair/replacement plan development	Acceptable

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-4210	<p>Changed paragraph number to 4220, removed the word repair from heading and changed referenced paragraph numbers consistent with the addition of a new paragraph 4210 above.</p> <p>Changed wording consistent with the changes to IWL-2310 addressed above.</p> <p>ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p> <p>Changed repair material to new material in several places.</p>	<p>Non significant</p> <p>Non significant</p> <p>Non significant</p> <p>Non significant</p>	Acceptable
IWL-4220	Changed paragraph number to 4230.	Non significant	Acceptable
IWL-4230	<p>Changed paragraph number to 4240 and clarified by removing the word repair.</p> <p>ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p> <p>Added detailed requirements for the contents of a repair/replacement plan.</p>	Non significant.	Acceptable
		Non significant.	Acceptable
		The added detailed requirements ensure proper repair/replacement plan development for post tensioning systems	Acceptable
IWL-4300	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant.	Acceptable
IWL-5100	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant.	Acceptable
IWL-5200	No Change	n/a	

**APPENDIX B -- BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 --
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
IWL-5210	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant.	Acceptable
IWL-5220	No Change	n/a	
IWL-5230	Changed wording by removing some specific IWE related requirements while maintaining the reference to IWE-5000.	Non significant - the removed wording was IWE specific and is contained in IWE-5000.	Acceptable
IWL-5240	Deleted paragraph which addressed the scheduling of pressure tests.	Non significant - the schedule of pressure tests are contained in IWE-500(0) as referenced in IWL-5230.	Acceptable
IWL-5250	<p>Changed wording regarding the role of the Responsible Engineer in pressure test activities.</p> <p>ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p> <p>Changed VT terminology consistent with the changes to IWL-2310 addressed above.</p>	<p>The clarified role of the Responsible Engineer ensures proper pressure test procedures and examinations.</p> <p>Non significant.</p> <p>The VT terminology changes are discussed in IWL-2310 above.</p>	Acceptable
IWL-5260	<p>Changed heading from Corrective Measures to Correction Action.</p> <p>ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p>	<p>Non significant</p> <p>Non significant</p>	Acceptable
IWL-5300	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	Acceptable
IWL-7000	Deleted Article including IWL-7100, 7110, 7120, consistent with the IWL-4000 changes above.	Non significant - all related repair and replacement requirements have been incorporated into IWL-4000.	Acceptable

**APPENDIX B – BYRON STATION UNITS 1 AND 2, AND LASALLE COUNTY STATION UNITS 1 AND 2 –
IWL COMPARISON TABLE**

Paragraph	Changes between IWL 1992 Edition/ 1992 Addenda and the 1998 Edition	Licensee's statement of significance and/or basis for use as an alternative examination	Disposition/Comments
Table IWL-2500-1	<p>Changed Item L1.11 from all areas to all accessible areas.</p> <p>Changed VT exam method terminology consistent with the paragraph IWL-2310 changes above.</p> <p>A discrepancy exists in the published 1998 Edition with respect to table IWL-2500-1 item L1.12. The Test or Examination Method for this item should have required a "Detailed Examination" rather than the listed "General Examination."</p>	<p>Changing item 1.1.11 provides for more practical examination implementation than previous requirements.</p> <p>The VT terminology changes are discussed in IWL-2310 above.</p> <p>The ComEd Containment ISI Program recognizes this discrepancy and will require suspect areas to receive a "Detailed Examination."</p>	<p>Acceptable</p> <p>Acceptable with licensee provided general visual examination requirements and acceptance criteria.</p>
Table IWL-2521-1	<p>Changed inspection periods to state every 5th year in lieu of listing out each year and changed note 2 for having to meet acceptance criteria from "each of the earlier inspections" to "for the last 3 inspections".</p>	<p>Non significant - accommodates plant life extensions for tendon examinations.</p>	<p>Acceptable</p>
Table IWL-2525-1	<p>Added optional test methods for corrosion protection medium analysis.</p>	<p>Non significant - additional test method options provides for more practical test implementation.</p>	<p>Acceptable</p>

Appendix C
ComEd Supplements to 1998 Code

Appendix C
ComEd Supplemental Information to the 1998 Code Edition

Initial 1998 Code Proposed Alternative	Supplemented Proposed Alternative	Recommendations/Comments
<p>IWE-2310 - "Visual Examinations"- a) the owner shall define requirements for visual examination of containment surfaces.</p>	<p>The 1998 Edition of IWE and the August, 1996 NRC Rulemaking remove the emphasis from weld based examinations. Therefore, containment welds and dissimilar metal welds will be examined by General Visual examination to the same criteria as general containment surfaces. For non-coated containment surfaces this criteria was developed from VT-3 procedures that are used for examination in accordance with ASME Section XI Subsection IWE, 1992 Edition, 1992 Addenda. This includes examination for cracking, discoloration, structural distortion, wear, pitting corrosion, gouges, dents or other surface discontinuities. For coated containment surfaces the recording criteria was developed from the ComEd Coatings Program. This includes examining for flaking, blistering, peeling, discoloration or other signs of distress.</p> <p>Pressure retaining bolting will be examined by General Visual examination (GV) examination for defects that cause the bolted connections to violate either the containment leak-tightness or structural integrity. The GV examination criteria for bolted connection are modeled after those found in the VT-1 procedure is used for examination in accordance with ASME Section XI Subsection IWE, 1992 Edition, 1992 Addenda. This includes examining for deformed or sheared threads, reduction in cross sectional area, bending, twisting, deformation, fractured bolting, missing or loose parts, or degradation of protective coatings.</p> <p>Moisture barriers will be examined by GV examination for defects that permit intrusion of moisture against inaccessible areas of the pressure retaining surfaces of metal containment shell or liner. The GV examination criteria for moisture barrier is modeled after those found in the VT-3 procedure that is used for examination in accordance with ASME Section XI Subsection IWE, 1992 Edition, 1992 Addenda. This includes examining for tears, cracks or other damage that permits intrusion of moisture through the barrier.</p>	<p>Authorize per 10 CFR 50.55a(a)(3)(i).</p>

Appendix C		
ComEd Supplemental Information to the 1998 Code Edition		
Initial 1998 Code Proposed Alternative	Supplemented Proposed Alternative	Recommendations/Comments
IWE-2330 - "Personnel Qualification" - a) the owner shall define the qualification requirements for personnel performing visual examinations.	<p>Personnel performing containment visual examinations will be qualified to a program developed using ASNT CP-189 as guidance, that is focused on visual examination and in particular items important to containment integrity. The required involvement of the Responsible Individual assures testing and qualification reviews will be performed such that personnel receiving containment visual examination certification will have a "demonstrated skill, demonstrated knowledge, documented training, and documented experience required to properly perform the duties of a specific job" as stipulated by ASNT CP-189. An individual knowledgeable in the requirements for inservice inspection and testing of Class MC components develops procedures for inspection and qualification. Procedures must be demonstrated to the ANII for capability to detect flaws and degradation levels as defined in the inspection procedures. Remote examinations are qualified in accordance with 50.55 a(b)(x)(B).</p> <p>Personnel performing augmented ultrasonic examinations of containment surfaces will be qualified in accordance with the written practices meeting the requirements of ASNT SNT-TC-1A and ASME Section XI (Edition and Addenda as applicable to the (Byron)(Dresden)(LaSalle) ISI Program Plan, currently the 1989 Edition).</p>	Authorize per 10 CFR 50.55a(a)(3)(i).
IWE-2500 - Deleted the requirement to examine paint or coatings prior to removal.	Procedural requirements ensure that coating deficiencies on the containment liner are brought to the attention of the Responsible Individual. If removal of coatings is necessary procedural requirements ensure that a Detailed Visual examination of the base metal is made prior to reapplication of the coating. Personnel performing Detailed Visual examinations are qualified in accordance with IWE-2330.	Authorize per 10 CFR 50.55a(a)(3)(i).
IWE-3510, and IWE -3512 - The owner shall define acceptance criteria for visual examination of containment surfaces.	See IWE-2300 above.	Authorize per 10 CFR 50.55a(a)(3)(i).
Table IWE-2500-1, Examination Category E-A - Notes - Revised to include welds and bolting as part of the pressure retaining boundary requiring examination.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.	Authorize per 10 CFR 50.55a(a)(3)(i).

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Initial 1998 Code Proposed Alternative	Supplemented Proposed Alternative	Recommendations/Comments
Table IWE-2500-1, Examination Category E-C - Visible surfaces requiring an augmented examination receive a Detailed Visual Exam.	Performance of detailed visual examinations is discussed in IWE-2300 above.	Authorize per 10 CFR 50.55a(a)(3)(i).
Table IWE-2500-1, Examination Category E-D - Deleted examination category which addressed seals, gaskets and moisture barriers.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.	Authorize per 10 CFR 50.55a(a)(3)(i).
Table IWE-2500-1, Examination Category E-G - Deleted examination category which addressed pressure retaining bolting	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.	Authorize per 10 CFR 50.55a(a)(3)(i).
IWL-2100 - Provided reference to IWA-2000 with exceptions from IWA-2210 and 2300 for visual examination personnel	See IWL-2310 below for supplemental proposed alternatives for the exceptions.	Authorize per 10 CFR 50.55a(a)(3)(i).

**Appendix C
ComEd Supplemental Information to the 1998 Code Edition**

Initial 1998 Code Proposed Alternative	Supplemented Proposed Alternative	Recommendations/Comments
<p>IWL-2310 - Replaced VT-1C and VT-3C visual examinations with General Visual and Detailed Visual Examinations and removed reference to visual examination procedure qualification.</p>	<p>The ComEd IWL General and Detailed Examination inspection program has been developed using the VT-1C and VT-3C requirements in the 1992 Edition, 1992 Addenda of ASME Code Section, Subsection IWL and ACI 201.1 as guidance. The General and Detailed Visual Examination inspection criteria includes, but not limited to: examination for grease or chemical leaching, erosion, concrete defects, corrosion, cracks, exposed reinforcing steel, and other deleterious conditions. The significant differences between the General and Detailed Visual Examination criteria is the dimensional attributes for defects, resolution criteria, and the examination of post tensioning systems and anchorage hardware.</p> <p>The General Visual and Detailed Visual examination procedure qualification requirements procedure qualification requirements are similar to, and are developed from the procedures used for VT-1 and VT-3 examinations. The examination procedures including distance, illumination and resolution conditions necessary to detect flaw sizes and conditions necessary to detect flaw sizes and conditions determined by the Responsible Engineer will be demonstrated to the Authorized Nuclear Inspector. In applications where remote visual examination equipment is to be used, the resolution capability will be demonstrated to be at least equivalent to that attainable by direct visual examination.</p> <p>ComEd's written practice for Concrete Inspectors qualifications is developed using ASNT CP-189 as guidance and relies upon demonstration of the inspector's abilities and experience to the IWL Responsible Engineer prior to certification. This is to insure consistency with the detection of degrading conditions and flaws. The Authorized Inspector reviews the certification and qualification process and the techniques for flaw detection are demonstrated to the Inspector.</p>	<p>Authorize per 10 CFR 50.55a(a)(3)(i).</p>