



May 8, 2000

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

Byron Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-454 and STN 50-455

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-374

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Request for Inservice Inspection Program Relief Regarding
Containment Inspections by Approved Alternate Means

10 CFR 50.55a(g), "Inservice Inspection Requirements," requires In-Service Inspection (ISI) of certain American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel (B&PV) Code Class 1, 2, and 3 components be performed in accordance with Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," of the ASME Code and applicable addenda, except where alternatives have been authorized or relief has been requested and granted by the NRC as described in the approved station ISI Program. 10 CFR 50.55a(g)(6)(ii)(B), "Expedited examination of containment," requires the inservice examinations for the first period of the first inspection interval in Subsection IWE and the inservice examinations corresponding to the number of years of operation that are specified in Subsection IWL of the 1992 Edition with the 1992 Addenda of Section XI, Division 1, of the ASME B&PV Code. Pursuant to 10 CFR 50.55a(a)(3)(i), we are proposing alternatives to the requirements of 10 CFR 50.55a(g) regarding the expedited examination of containments.

The attached ISI Program relief requests propose to implement the 1998 Edition of the Subsections IWL and IWE of Section XI of the ASME B&PV Code in their entirety and include supplemental proposed alternatives. The supplemental proposed alternatives are included based on our review of the NRC Safety Evaluation, "Comanche Peak Steam Electric Station, Units 1 and 2 - Evaluation of Relief Requests: Use of 1998 Edition of Subsections IWE and IWL of the ASME Code for Containment Inspection," dated July 23, 1999. Note that Subsection IWL of Section XI of the ASME B&PV Code

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is not applicable to Dresden Nuclear Power Station and, therefore, we are only requesting relief from Subsection IWE of Section XI of the ASME B&PV Code for the Dresden Nuclear Power Station. Utilizing the 1998 Edition of Subsections IWL and IWE of Section XI of the ASME B&PV Code provides more continuity than would be achieved by requesting relief on several individual subjects separately. Updating the current containment inspection requirements to the 1998 Edition of Subsection IWL and IWE of Section XI will maintain the same level of assurance concerning the continued leak-tight and structural integrity of concrete containment components as compliance with the 1992 Code. The overall level of quality and safety will not be adversely affected by utilizing the requirements of the 1998 Edition of the ASME Code.

In accordance with 10 CFR 50.55a(g)(6)(ii)(B), the containment examinations are required to be completed by September 9, 2001. We request approval of these proposed reliefs by September 1, 2000, in order to support containment examinations in the fall outages of 2000. Additionally, we have determined that the containment inspections for Dresden Nuclear Power Station, Unit 2 were not performed in accordance with 10 CFR 50.55a(g)(6)(ii)(B). The last opportunity to perform these inspections prior to September 9, 2001, were the Fall 1999 outages. Thus, we will be submitting a schedular exemption request per 10 CFR 50.12, "Specific exemptions," under separate cover.

Should you have any questions concerning this letter, please contact Ms. Marcia Lesniak at (630) 663-6484.

Respectfully,



R. M. Krich
Vice President - Regulatory Services

Attachments: Byron Station Relief Request I2R-38
Byron Station Relief Request I2R-39
Dresden Nuclear Power Station Relief Request MCR-02
LaSalle County Station Relief Request CR-33
LaSalle County Station Relief Request CR-34

cc: Regional Administrator - Region III
NRC Senior Resident Inspector - Byron Station
NRC Senior Resident Inspector - Dresden Nuclear Power Station
NRC Senior Resident Inspector - LaSalle County Station

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COMPONENT IDENTIFICATION

Code Class: MC
References: Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants"
Examination Categories: All
Item Numbers: All
Description: Class MC Pressure Retaining Components and Their Integral Attachments
Component Numbers: All

CODE REQUIREMENT

1992 Edition, 1992 Addenda of Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants," of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," Division 1, of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code.

BASIS FOR RELIEF

Relief is requested from the requirements of 10 CFR 50.55a(g)(6)(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 radiation exposure and could result in damage to permanent plant equipment.

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BASIS FOR RELIEF (Cont'd.)

Seals and gaskets require specific VT-3 examinations per Table IWE-2500-1. Seals and gaskets are not considered as material 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 subjects 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 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.

PROPOSED ALTERNATE EXAMINATIONS

As an alternative to the requirements of the ASME Code, Section XI, 1992 Edition with the 1992 Addenda Subsection IWE, Byron 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. The supplemental proposed alternatives further define our visual examination program and are consistent with other Code visual examinations. Table I2R-38.1 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.

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Containment ISI Program for Byron Station, Units 1 and 2.

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1000	No Change	N/A	N/A
IWE-1100	Deleted "the rules and" and ", repair, and replacement".	Non Significant	None
IWE-1200	No change	N/A	N/A
IWE-1210	No change	N/A	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	None
IWE-1230	No change	N/A	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.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1231, cont'd.	(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)." (4)(b) Reworded from "is not from the outside surface" to "is the interior surface."	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. Non Significant	None None
IWE-1232	ASME XI generic change from repair and or replacement to repair/replacement activities. Deleted paragraph IWE1232(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.	Non Significant See IWE-1231 above.	None None
IWE-1240	No change	N/A	N/A
IWE-1241	(a) Added "stiffeners." 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.	The additional areas subject to augmented examination further assure containment integrity. This is a conservative change. The additional areas subject to examination further assure containment integrity.	None None
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.	None
IWE-2000	No change	N/A	N/A

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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>	<p>See IWE-2310 below for supplemental proposed alternatives.</p> <p>See IWE-2330 below for supplemental proposed alternatives.</p> <p>None</p> <p>None</p>
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 preservice examinations are performed and documented.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2200, cont'd.	Deleted paragraph (g) which required the condition of new coating to be documented in the preservice examination record. ASME XI generic change from repair and or replacement to repair/replacement activities.	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. Non significant	None None
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.	
IWE-2310	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.	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	The 1998 Edition of IWE and the August 8, 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

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310, cont'd.		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>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>

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310, cont'd.			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.
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.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	<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 50.55a(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 ISI Program Plan, currently the 1989 Edition).</p>
IWE-2400	No change	N/A	N/A

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2410	No change	N/A	N/A
IWE-2411	Deleted subparagraph (b) discussing decreasing and extending inspection periods under Inspection Program A.	The deleted subparagraph eliminates duplication with IWA-2400.	None
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.	None
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 subjected to augmented inspections during successive inspection periods.</p>	<p>None</p> <p>None</p>

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2430	Deleted the paragraph - Additional Examinations - which discussed adding examinations 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.	None
IWE-2500	<p>Reworded the existing subparagraphs consistent with the previous paragraph changes and with Table IWE-2500-1 changes.</p> <p>Deleted the requirement to examine paint or coatings prior to removal.</p> <p>Replaced the requirement for one foot square grids in thickness measurements with a reference to Table IWE 2500-2.</p> <p>Added a reference to IWE-5000 for pressure tests.</p>	<p>The reworded subparagraphs add clarity and provide consistency within IWE.</p> <p>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.</p> <p>The new Table IWE 2500-2 provides more detailed requirements for thickness measurement grid lines and is discussed below.</p> <p>The added reference to IWE-5000 provides direction for the performance of pressure test.</p>	<p>None</p> <p>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.</p> <p>None</p> <p>None</p>

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None
IWE-3000	No changes	N/A	N/A
IWE-3100	Removed "nondestructive" from the heading.	Non significant	None
IWE-3110	No change	N/A	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.	None
IWE-3112	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.	None
	Revised reference to IWA-6220 with a reference to IWA-6230.	Non significant - preparation of a Form NIS-1 (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230).	None
	ASME XI generic change from repair and or replacement to repair/replacement activities, generically changed "Components" to "A component", and "reveals" to detects."	Non significant	None
IWE-3114	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.	None
	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None
IWE-3120	Removed "nondestructive" from the heading.	Non significant	None
IWE-3121	Removed "nondestructive" from the paragraph. Deleted references to IWE-3124 and IWE-3125 for the acceptance of flaws for continued service.	Non significant. The referenced subparagraphs did not actually apply to the acceptance of flaws for continued service.	None None
IWE-3122	Replaced the references to Table IWE-2500-1 and to IWE-3000 with a reference to subarticle IWE-3500. Deleted sentence which addressed evaluations being subject to review by authorities. Revised reference to IWA-6220 with a reference to IWA-6230. Deleted reference to additional examination requirements of IWE-2430. Reworded several sentences. ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant - the changes are for clarity and to reconcile paragraph numbering. 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. Non significant - preparation of a Form NIS-1 (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230). IWE-2430 has been deleted and is discussed above. Non significant Non significant	None None None None None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3124	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	None None
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.	None
IWE-3130	Changed "Components" to "A component", and "reveals" to detects."	Non significant	None
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.	None
IWE-3400	No change	N/A	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.	None
IWE-3430	No change	N/A	N/A
IWE-3500	No change	N/A	N/A
IWE-3510	Reconciled acceptance standards with the IWE-2300 changes discussed above and the Table IWE-2500-1 changes discussed below by:	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.	See IWE-2300 above.

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3510, cont'd.	Adding the requirement that the owner shall define acceptance criteria for visual examination of containment surfaces;	This change directly corresponds to the addition of IWE-2310(a) discussed above.	See IWE-2310 above.
	Removing the wording for responsible individual and for personnel qualifications;	This change directly corresponds to the addition of IWE-2320 discussed above.	See IWE-2320 above.
	Combining IWE-3510.2 and IWE-3510.3 and removing specific VT-1 and VT-3 examination attribute wording; and	These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above.	See IWE-2310 above.
	Incorporating IWE-3511, IWE-3513, IWE-3514 and IWE-3515 with changes into IWE-3510.	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 from the acceptance standards paragraphs per the addition of IWE-2310(e)(3) and (4) as discussed above.	See IWE-2310 above and Table IWE-2500-1 below.
	By the incorporation of IWE-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.	The resulting acceptance standards for bolting provide for more practical containment ISI program implementation without adversely affecting containment leak tight or structural integrity.	See IWE-2310 above.
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.	None
IWE-3512	Renumbered subparagraph to IWE-3511. Reconciled acceptance standards with the IWE-2300 changes discussed above and the Table IWE-2500-1 changes discussed below.	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.	See IWE-2300 above and Table IWE-2500-1 below.

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3512, cont'd.	Added the requirement that the owner shall define acceptance criteria for visual examination of containment surfaces;	This change directly corresponds to the addition of IWE-2310(a) discussed above.	See IWE-2310 above.
	Removed "acceptance by engineering evaluation or corrected by repair/replacement activities in accordance with IWE-3122" from IWE-3511.2 of the 1998 Edition.	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.	None
	Combined IWE-3512.2 and IWE-3512.3 with changes into 3511.2 and removed specific VT-1 examination attribute wording; and	These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above and eliminate potential duplication or contradiction of requirements.	See IWE-2310 above.
	Changed "'Containment vessel examination" to "Examinations of Class MC pressure retaining components" and reworded paragraph.	Change does not revise the applicability of the paragraph.	None
IWE-3513 IWE-3514 IWE-3515	Deleted subparagraphs IWE-3513, 3514 and 3515 which 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.	None
IWE-4000	No change	N/A	N/A
IWE-4100	No change	N/A	N/A
IWE-5000	No Change	N/A	N/A
IWE-5200	No change	N/A	N/A
IWE-5210	No change	N/A	N/A
IWE-5220	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWE-5221	Removed the quotation of 10 CFR 50 Appendix J paragraph IV.A.	Non significant - meeting the requirements of the referenced 10 CFR 50 Appendix J paragraph is not affected by removing the quoted 10 CFR 50 Appendix J paragraph.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-5221, cont'd.	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWE-5222	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
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 therefor provides added assurance of the integrity of repaired/replaced areas.	None
IWE-5250	Changed "Corrective Measures" to "Corrective Action" in the heading. ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant Non significant	None None
IWE-7000	No change	N/A	None
IWE-7100	No change	N/A	None
Table IWE-2411-1	No change	N/A	N/A
Table IWE-2412-1	Replaced the separate entries for 1st and successive intervals with one entry for all intervals.	Non significant - The previous requirements for the 1st and successive intervals were identical. Therefore combining the entries does not affect any requirements.	None
Table IWE-2500-1 Examination Category E-A	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.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A, cont'd.	E1.12 Redesignated item from "accessible surface areas" to "wetted surfaces of submerged areas." Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.20 Added BWR to item description. Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.30 Added item for moisture barriers with a general VT required each period.	Moisture barriers were previously included in examination category E-D with a VT-3 required each interval. Examining moisture barriers more frequently will assure reliable detection of conditions adverse to containment integrity.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
	All Item Numbers - Replaced reference to IWE-3510 for examination requirements with IWE-2310.	Non significant - Previously some examination requirements were contained in IWE-3500. They now exist in IWE-2300 as discussed above.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A, cont'd.	Notes - Revised to specifically include welds and bolting as part of the pressure retaining boundary requiring examination.	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.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-B	Deleted examination category which addressed pressure retaining 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. Pressure retaining welds are now included in examination category E-A as addressed above.	None
Table IWE-2500-1 Examination Category E-C	E4.11 Replaced examination method VT-1 with detailed visual.	Requiring a detailed visual in lieu of a VT-1 does not adversely affect the integrity of the containment components examined.	Performance of detailed visual examinations is discussed in IWE-2300 above.
	E4.12 Added grid line intersections to description of parts examined. Changed examination method from volumetric to ultrasonic thickness.	The added wording clarifies inspection requirements and ensures repeatability in the location of subsequent thickness measurement points.	None
	All Item Numbers - Added examination requirement paragraph number references. Updated acceptance standard references.	Previously no references existed for examination requirements. These requirements have been added to IWE-2300 and IWE-2500 as discussed above. Adding new references and updating paragraph numbers ensure proper requirements are applied to examinations.	None

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-C, cont'd.	Notes - Changed note 2 from requiring augmented examination until an area remains unchanged for three consecutive inspection periods to the next inspection period. Deleted Note 3 which discussed inspection deferrals.	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 of Note 3 is non significant.	None
Table IWE-2500-1 Examination Category 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.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category 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.	None
Table IWE-2500-1 Examination Category E-G	Deleted examination category which addressed pressure retaining bolting.	Pressure retaining bolting is now included in examination category E-A as addressed above.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.

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TABLE I2R-38.1
Comparison of ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-P	Deleted examination category which addressed 10 CFR 50 Appendix J testing for all pressure retaining components.	10 CFR 50 Appendix J testing is mandated by plant technical specifications. Removing this duplicate requirement from IWE does not adversely affect component integrity.	None
Table IWE-2500-2	Added new Table 2500-2 - Ultrasonic Thickness Measurements For Augmented Examinations - which details gridding 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.	None
Table IWE-3410-1	Deleted table.	Non significant - the contents of the previous table are adequately addressed in IWE-3500.	None

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COMPONENT IDENTIFICATION

Code Class:	CC
References:	Subsection IWL, "Requirements for Class CC Concrete Components of Light-Water Cooled Plants"
Examination Categories:	All
Item Numbers:	All
Description:	Authorization to Use American Society of Mechanical Engineers (ASME) Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," 1998 Edition, Subsection IWL, for Examination of Class CC Components
Component Numbers:	All

CODE REQUIREMENT

1992 Edition, 1992 Addenda of Subsection IWL of Section XI, Division 1, of the ASME Boiler and Pressure (B&PV) Vessel Code.

BASIS FOR RELIEF

Relief is requested from the requirements of 10 CFR 50.55a(g)(6)(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 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 specific difficulties imposed by the 1992 Edition, 1992 Addenda of Subsection IWL is 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

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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 by 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 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.

PROPOSED ALTERNATE PROVISIONS

As an alternative to the requirements of the 1992 Edition, 1992 Addenda of the ASME Code, Section XI, Subsection IWL, Byron Station will implement the requirements of the 1998 Edition of the ASME Code, Subsection IWL, in conjunction with the supplemental proposed alternatives listed in Table I2R-39.1. The supplemental proposed alternatives further define our visual examination program and are consistent with other Code visual examinations. Table I2R-39.1 details the changes between the 1992 Edition, 1992 Addenda of the ASME Code, Section XI, Subsection IWL, significance of each change, and a basis for use as an alternative examination.

APPLICABLE TIME FRAME

Relief is requested for the first ten-year interval of the Containment ISI Program for Byron Station, Units 1 and 2.

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Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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	N/A
IWL-1210	No change	N/A	N/A
IWL-1220	No change	N/A	N/A
IWL-2100	Changed "Inspection" to "General" in heading. (a) Provided reference to IWA-2000 with exceptions from IWA-2210 and 2300 for visual examination personnel.	Non Significant (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	None See IWL-2310 below for supplemental proposed alternatives for the exceptions.
IWL-2200	No change	N/A	N/A
IWL-2210	No Change	N/A	N/A
IWL-2220	No Change	N/A	N/A

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2230	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities	Non-significant	None
IWL-2300	No change	N/A	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 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>	<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>

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2310 (cont'd)	(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.	The General Visual and Detailed Visual examination 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 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.

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2310 (cont'd)	(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	ComEd's written practice for Concrete Inspector 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.
IWL-2320	<p>Changed wording slightly.</p> <p>Made the ASME Code 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>	None
IWL-2400	No change	N/A	N/A
IWL-2410	No change	N/A	N/A
IWL-2420	No change	N/A	N/A

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Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None
IWL-2500	No change	N/A	N/A
IWL-2510	Changed heading. Changed wording consistent with the changes to IWL-2310 addressed above. Added two subparagraphs providing more detailed examination requirements for tendon anchorage areas.	Non significant Non significant The added details ensure proper tendon anchorage area examinations	None
IWL-2520	No change	N/A	N/A
IWL-2521	No change	N/A	N/A
IWL-2522	Changed the heading and added a subparagraph to address tendon elongation.	The added details ensure proper tendon examination	None
IWL-2523	No change	N/A	N/A
IWL-2524	Changed wording consistent with the changes to IWL-2310 addressed above.	Non significant	N/A
IWL-2525	Changed wording for sample analysis.	Non significant	N/A
IWL-2526	Added a subparagraph addressing replacement of corrosion protection medium.	The added details ensure tendon integrity	None
IWL-3100	No change	N/A	N/A
IWL-3110	No change	N/A	N/A

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Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-3111	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities	Non significant	N/A
IWL-3112	No change	N/A	N/A
IWL-3113	ASME Section XI generic change from repair and or replacement to repair/replacement activities	Non significant	N/A
IWL-3120	No change	N/A	N/A
IWL-3200	No change	N/A	N/A
IWL-3210	Removed the word concrete from the heading	Non significant	N/A
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 Code Section XI generic change from repair and or replacement to repair/replacement activities.	The added details ensure proper tendon examinations. Non significant.	None
IWL-3212	No change	N/A	N/A
IWL-3213	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-3220	No change	N/A	N/A

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Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-3221	Added acceptance criteria attributes for tendon elongation, free water content and corrosion protection medium reduction.	The added details ensure proper tendon examinations	None
IWL-3222	No change	N/A	N/A
IWL-3223	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-3300	No change	N/A	N/A
IWL-3310	Added applicability for other plants at the same site.	Non significant	None
	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
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.	Any flaw or area of degradation that exceeds acceptance standards is required to be reported in the ISI Summary Report as required by IWA-6000 and the NRC Rulemaking (reference 1).
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	None
IWL-4100	No change	N/A	N/A

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-4110	Exempted grease cups and installation screws from the scope. ASME Code Section XI generic change repair and or replacement to repair/replacement activities.	Non significant – the exempted items are non structural items Non significant	None
IWL-4200	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
- - -	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	None
IWL-4210	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. Changed wording consistent with the changes to IWL-2310 addressed above. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities. Changed repair material to new material in several places.	Non significant Non significant Non significant Non significant	None
IWL-4220	Changed paragraph number to 4230	Non significant	None

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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>	<p>Non significant</p> <p>Non significant</p> <p>The added detailed requirements ensure proper repair/replacement plan development for post-tensioning systems</p>	None
IWL-4300	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-5100	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-5200	No change	N/A	N/A
IWL-5210	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-5220	No change	N/A	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.	None
IWL-5240	Deleted paragraph that addressed the scheduling of pressure tests.	Non significant – the schedule of pressure test are contained in IWE-500 as referenced in IWL-5230.	None

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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>	None
IWL-5260	<p>Changed heading from Corrective Measures to Corrective 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>	None
IWL-5300	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
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.	None

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**Table I2R-39.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWL-2500-1	<p>Changed item 1.1.11 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>	None
Table IWL-2521-1, cont'd.	<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>Added optional test methods for corrosion protection medium analysis</p>	<p>Non significant - accommodates plant life extensions for tendon examinations</p> <p>Non significant - additional test method options provides for more practical test implementation.</p>	<p>None</p> <p>None</p>

Reference:

1. "Industry Codes and Standards; Amended Requirements, Final Rule," September 22, 1999, (64 Federal Register (FR) 51395.

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COMPONENT IDENTIFICATION

Code Class:	MC
References:	Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants"
Examination Categories:	All
Item Numbers:	All
Description:	Class MC Pressure Retaining Components and Their Integral Attachments
Component Numbers:	All

CODE REQUIREMENT

1992 Edition, 1992 Addenda of Subsection IWE of Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," Division 1, of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code.

BASIS FOR RELIEF

Relief is requested from the requirements of 10 CFR 50.55a(g)(6)(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 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 Power Reactors," leak testing and a visual examination to verify leak tight and structural integrity. Other bolted joints subjected to visual examination by the ASME Code, 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, increases radiation exposure and could result in damage to permanent plant equipment.

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BASIS FOR RELIEF (Cont'd.)

Seals and gaskets require specific VT-3 examinations per Table IWE-2500-1. Seals and gaskets are not considered as material 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 subjects 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 the 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 MCR-02.1 of this relief request.

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

PROPOSED ALTERNATE EXAMINATIONS

As an alternative to the requirements of the ASME Code, Section XI, 1992 Edition with the 1992 Addenda Subsection IWE, Dresden Nuclear Power 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 MCR-02.1. The supplemental proposed alternatives further define our visual examination program and are consistent with other Code visual examinations. Table MCR-02.1 details the changes between the 1992 Edition with 1992 Addenda and 1998 Edition, significance of each change, and a basis for use as an alternative examination.

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Containment ISI Program for Dresden Nuclear Power Station, Units 2 and 3.

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1000	No Change	N/A	N/A
IWE-1100	Deleted "the rules and" and ", repair, and replacement."	Non Significant	None
IWE-1200	No change	N/A	N/A
IWE-1210	No change	N/A	N/A
IWE-1220	(a) Deleted "that are" and changed "containment" to "containment system." (c) ASME Code Section XI generic change from repair and or replacement to repair/replacement activities. (d) Changed "rules" to "requirements."	Non Significant	None
IWE-1230	No change	N/A	N/A
IWE-1231	Removed paragraph (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 1998 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.	None

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1231 (cont'd.)	(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)." (4)(b) Reworded from "is not from the outside surface" to "is the interior surface."	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. Non Significant	None None
IWE-1232	ASME Section XI generic change from repair and or replacement to repair/replacement activities. 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.	Non Significant See IWE-1231.	None None
IWE-1240	No change	N/A	N/A
IWE-1241	(a) Added "stiffeners." 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.	The additional areas subject to augmented examination further assure containment integrity. This is a conservative change. The additional areas subject to examination further assure containment integrity.	None None
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.	None
IWE-2000	No change	N/A	N/A

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 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>	<p>See IWE-2310 below for supplemental proposed alternatives.</p> <p>See IWE-2330 below for supplemental proposed alternatives.</p> <p>None</p> <p>None</p>
IWE-2200	Deleted paragraph (c) that 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 preservice examinations are performed and documented.	None

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2200 (cont'd.)	<p>Deleted paragraph (g) that required the condition of new coating to be documented in the preservice examination record.</p> <p>ASME Section XI generic change from repair and or replacement to repair/replacement activities.</p>	<p>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.</p> <p>Non significant</p>	<p>None</p> <p>None</p>
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.	

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310	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.	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.	The 1998 Edition of IWE and the August 8, 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 Code 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.

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310 (cont'd.)			<p>Pressure retaining bolting will be examined by General Visual (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 connections are modeled after those found in the VT-1 procedures that are used for examination in accordance with ASME Code, 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 Code, 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>

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 CP-189.	<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 50.55a(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 Dresden ISI Program Plan, currently the 1989 Edition).</p>
IWE-2400	No change	N/A	N/A

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2410	No change	N/A	N/A
IWE-2411	Deleted subparagraph (b) discussing decreasing and extending inspection periods under Inspection Program A.	The deleted subparagraph eliminates duplication with IWA-2400.	None
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.	None
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>	<p>None</p> <p>None</p>

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2430	Deleted the paragraph - Additional Examinations - which discussed adding examinations 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.	None
IWE-2500	<p>Reworded the existing subparagraphs consistent with the previous paragraph changes and with Table IWE-2500-1 changes.</p> <p>Deleted the requirement to examine paint or coatings prior to removal.</p> <p>Replaced the requirement for one foot square grids in thickness measurements with a reference to Table IWE 2500-2.</p> <p>Added a reference to IWE-5000 for pressure tests.</p>	<p>The reworded subparagraphs add clarity and provide consistency within IWE.</p> <p>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.</p> <p>The new Table IWE 2500-2 provides more detailed requirements for thickness measurement grid lines and is discussed below.</p> <p>The added reference to IWE-5000 provides direction for the performance of pressure test.</p>	<p>None</p> <p>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.</p> <p>None</p> <p>None</p>
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.	None
IWE-3000	No changes	N/A	N/A
IWE-3100	Removed "nondestructive" from the heading.	Non significant	None

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3110	No change	N/A	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.	None
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 Code Section 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 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	None None None
IWE-3114	Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500. ASME Code Section 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	None None
IWE-3115	Deleted subparagraph, which addressed repair programs and evaluations being subject to review by authorities.	ASME Code 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 Code Section XI documents.	None
IWE-3120	Removed "nondestructive" from the heading.	Non significant	None
IWE-3121	Removed "nondestructive" from the paragraph.	Non significant.	None

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3121 (cont'd.)	Deleted references to IWE-3124 and IWE-3125 for the acceptance of flaws for continued service.	The referenced subparagraphs did not actually apply to the acceptance of flaws for continued service.	None
IWE-3122	Replaced the references to Table IWE-2500-1 and to IWE-3000 with a reference to subarticle IWE-3500. Deleted sentence that addressed evaluations being subject to review by authorities. Revised reference to IWA-6220 with a reference to IWA-6230. Deleted reference to additional examination requirements of IWE-2430. Reworded several sentences. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant - the changes are for clarity and to reconcile paragraph numbering. ASME Code 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. Non significant - preparation of a Form NIS-1 (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230). IWE-2430 has been deleted and is discussed above. Non significant Non significant	None None None None None
IWE-3124	Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500. ASME Code Section 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	None None
IWE-3125	Deleted subparagraph that addressed repair programs and reexamination results being subject to review by authorities.	ASME Code 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 Code Section XI documents.	None

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3130	Changed "Components" to "A component", and "reveals" to "detects".	Non significant	None
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.	None
IWE-3400	No change	N/A	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.	None
IWE-3430	No change	N/A	N/A
IWE-3500	No change	N/A	N/A
IWE-3510	<p>Reconciled acceptance standards with the IWE-2300 changes discussed above and the Table IWE-2500-1 changes discussed below by:</p> <p>Adding the requirement that the owner shall define acceptance criteria for visual examination of containment surfaces;</p> <p>Removing the wording for responsible individual and for personnel qualifications;</p> <p>Combining IWE-3510.2 and IWE-3510.3 and removing specific VT-1 and VT-3 examination attribute wording; and</p>	<p>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>This change directly corresponds to the addition of IWE-2320 discussed above.</p> <p>These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above.</p>	<p>See IWE-2300 above.</p> <p>See IWE-2310 above.</p> <p>See IWE-2320 above.</p> <p>See IWE-2310 above.</p>

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**TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition**

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3510 (cont'd.)	<p>Incorporating IWE-3511, IWE-3513, IWE-3514 and IWE-3515 with changes into IWE-3510.</p> <p>By the incorporation of IWE-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 correspond to the changes in the examination categories of Table IWE-2500-1 as discussed below and to the removal of examination requirements from 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>See IWE-2310 above and Table IWE-2500-1 below.</p> <p>See IWE-2310 above.</p>
IWE-3511	Deleted subparagraph that 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.	None
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>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>See IWE-2300 above and Table IWE-2500-1 below.</p> <p>See IWE-2310 above.</p> <p>None</p> <p>See IWE-2310 above.</p>

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3512 (cont'd.)	Changed "Containment vessel examination" to "Examinations of Class MC pressure retaining components" and reworded paragraph.	Change does not revise the applicability of the paragraph.	None
IWE-3513 IWE-3514 IWE-3515	Deleted subparagraphs 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.	None
IWE-4000	No change	N/A	N/A
IWE-4100	No change	N/A	N/A
IWE-5000	No Change	N/A	N/A
IWE-5200	No change	N/A	N/A
IWE-5210	No change	N/A	N/A
IWE-5220	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWE-5221	Removed the quotation of 10 CFR 50 Appendix J paragraph IV.A. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant - meeting the requirements of the referenced 10 CFR 50 Appendix J paragraph is not affected by removing the quoted 10 CFR 50 Appendix J paragraph. Non significant	None None
IWE-5222	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 therefor provides added assurance of the integrity of repaired/replaced areas.	None
IWE-5250	Changed "Corrective Measures" to "Corrective Action" in the heading. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant Non significant	None None
IWE-7000	No change	N/A	None
IWE-7100	No change	N/A	None
Table IWE-2411-1	No change	N/A	N/A
Table IWE-2412-1	Replaced the separate entries for 1st and successive intervals with one entry for all intervals.	Non significant - The previous requirements for the 1st and successive intervals were identical. Therefore combining the entries does not affect any requirements.	None
Table IWE-2500-1 Examination Category E-A	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.	None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A (cont'd.)	E1.12 Redesignated item from "accessible surface areas" to "wetted surfaces of submerged areas." Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.20 Added BWR to item description. Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.30 Added item for moisture barriers with a general VT required each period.	Moisture barriers were previously included in examination category E-D with a VT-3 required each interval. Examining moisture barriers more frequently will assure reliable detection of conditions adverse to containment integrity.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
	All Item Numbers - Replaced reference to IWE-3510 for examination requirements with IWE-2310.	Non significant - Previously some examination requirements were contained in IWE-3500. They now exist in IWE-2300 as discussed above.	None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A (cont'd.)	Notes - Revised to specifically include welds and bolting as part of the pressure retaining boundary requiring examination.	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.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-B	Deleted examination category that addressed pressure retaining 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. Pressure retaining welds are now included in examination category E-A as addressed above.	None
Table IWE-2500-1 Examination Category E-C	E4.11 Replaced examination method VT-1 with detailed visual.	Requiring a detailed visual in lieu of a VT-1 does not adversely affect the integrity of the containment components examined.	Performance of detailed visual examinations is discussed in IWE-2300 above.
	E4.12 Added grid line intersections to description of parts examined. Changed examination method from volumetric to ultrasonic thickness. All Item Numbers - Added examination requirement paragraph number references. Updated acceptance standard references.	The added wording clarifies inspection requirements and ensures repeatability in the location of subsequent thickness measurement points. Previously no references existed for examination requirements. These requirements have been added to IWE-2300 and IWE-2500 as discussed above. Adding new references and updating paragraph numbers ensure proper requirements are applied to examinations.	None None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-C (cont'd.)	Notes - Changed note 2 from requiring augmented examination until an area remains unchanged for three consecutive inspection periods to the next inspection period. Deleted Note 3 that discussed inspection deferrals.	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 of Note 3 is non significant.	None
Table IWE-2500-1 Examination Category E-D	Deleted examination category that 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.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-F	Deleted examination category that 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.	None
Table IWE-2500-1 Examination Category E-G	Deleted examination category that addressed pressure retaining bolting.	Pressure retaining bolting is now included in examination category E-A as addressed above.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-P	Deleted examination category that addressed 10 CFR 50 Appendix J testing for all pressure retaining components.	10 CFR 50 Appendix J testing is mandated by plant technical specifications. Removing this duplicate requirement from IWE does not adversely affect component integrity.	None

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TABLE MCR-02.1
Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-2	Added new Table 2500-2 - Ultrasonic Thickness Measurements For Augmented Examinations - which details gridding 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.	None
Table IWE-3410-1	Deleted table.	Non significant - the contents of the previous table are adequately addressed in IWE-3500.	None

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COMPONENT IDENTIFICATION

Code Class:	MC
References:	Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants"
Examination Categories:	All
Item Numbers:	All
Description:	Class MC Pressure Retaining Components and Their Integral Attachments
Component Numbers:	All

CODE REQUIREMENT

1992 Edition, 1992 Addenda of Subsection IWE of Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," Division 1, of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BP&V) Code.

BASIS FOR RELIEF

Relief is requested from the requirements of 10 CFR 50.55a(g)(6)(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 ISI program to a program that includes containment ISI 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 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 the ASME Code, 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 radiation exposure and could result in damage to permanent plant equipment.

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BASIS FOR RELIEF (Cont.)

Seals and gaskets require specific VT-3 examinations per Table IWE-2500-1. Seals and gaskets are not considered as material 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 subjects 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 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.

PROPOSED ALTERNATE EXAMINATIONS

As an alternative to the requirements of the ASME Code, Section XI, 1992 Edition with the 1992 Addenda Subsection IWE, 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 CR-33.1. The supplemental proposed alternatives further define our visual examination program and are consistent with other Code visual examinations. Table CR-33.1 details the changes between the 1992 Edition with 1992 Addenda and 1998 Edition, significance of each change, and a basis for use as an alternative examination.

APPLICABLE TIME PERIOD

Relief is requested for the first ten-year interval of the Containment ISI Program for LaSalle County Station, Units 1 and 2.

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1000	No Change	N/A	N/A
IWE-1100	Deleted "the rules and" and ", repair, and replacement."	Non Significant	None
IWE-1200	No change	N/A	N/A
IWE-1210	No change	N/A	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	None
IWE-1230	No change	N/A	N/A
IWE-1231	Removed paragraph (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 EB and EF are optional in accordance with 10 CFR 50.55a(b)(2)(x)(C). Weld Examination Categories EB and EF 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 1998 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.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-1231 (cont'd.)	(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)." (4)(b) Reworded from "is not from the outside surface" to "is the interior surface."	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. Non Significant.	None None
IWE-1232	ASME XI generic change from repair and or replacement to repair/replacement activities. 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.	Non Significant See IWE-1231(a)(3)	None None
IWE-1240	No change	N/A	N/A
IWE-1241	(a) Added "stiffeners." 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.	The additional areas subject to augmented examination further assure containment integrity. This is a conservative change. The additional areas subject to examination further assure containment integrity.	None None
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.	None
IWE-2000	No change	N/A	N/A

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda. and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2100	Added new Subarticle 2100 - "General" – to provide reference to IWA-2000 with exceptions from IWA-2210, 2300, 2500 and 2600.	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.	
		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.	See IWE-2310 below for supplemental proposed alternatives.
		IWA-2300 – Personnel will not have to be certified to CP-189. The 1998 Edition allows the owner to define the qualification requirements of inspection personnel. 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. IWE only requires volumetric examination of augmented examination areas. A grid system is established for these areas in accordance with IWE-2500.	See IWE-2330 below for supplemental proposed alternatives. None None
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 preservice examinations are performed and documented.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2200	Deleted paragraph (g), which required the condition of new coating to be documented in the preservice examination record. ASME Section XI generic change from repair and or replacement to repair/replacement activities.	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. Non significant.	None None
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.	

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310	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.	This presents a significant change by allowing the owner to define acceptance criteria and examination conditions. The VT-3 and VT-1 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-3 and VT-1 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, 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.	The 1998 Edition of IWE and the August 8, 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 the ASME Code, 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.

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2310 (cont'd.)			<p>Pressure retaining bolting will be examined by General Visual (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 connections is modeled after those found in the VT-1 procedure that is used for examination in accordance with the ASME Code, 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 the ASME Code, 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>

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 CP-189.	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 in-service inspection and qualification 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 50.55a(b)(x)(B). 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 ISI Program Plan, currently the 1989 Edition).

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2400	No change	N/A	N/A
IWE-2410	No change	N/A	N/A
IWE-2411	Deleted subparagraph (b) discussing decreasing and extending inspection periods under Inspection Program A.	The deleted subparagraph eliminates duplication with IWA-2400.	None
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.	None
IWE-2420	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.	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.	None
	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.	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 subjected to augmented inspections during successive inspection periods.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2430	Deleted the paragraph – Additional Examinations –, which discussed adding examinations 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.	None
IWE-2500	<p>Reworded the existing subparagraphs consistent with the previous paragraph changes and with Table IWE-2500-1 changes.</p> <p>Deleted the requirement to examine paint or coatings prior to removal.</p> <p>Replaced the requirement for one foot square grids in thickness measurements with a reference to Table IWE 2500-2.</p> <p>Added a reference to IWE-5000 for pressure tests</p>	<p>The reworded subparagraphs add clarity and provide consistency within IWE.</p> <p>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.</p> <p>The new Table IWE 2500-2 provides more detailed requirements for thickness measurement grid lines and is discussed below.</p> <p>The added reference to IWE-5000 provides direction for the performance of pressure test.</p>	<p>None</p> <p>Procedural requirements ensure that coating deficiencies on the containment liner are brought to the attention of the Responsible Individual. A common surveillance implements the General Visual examination and coating inspections of containment. Therefore, any coating degradation would be 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.</p> <p>None</p> <p>None</p>

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-2600	Deleted a sentence discussing compatibility of paint and coating systems and a requirement to examine the new paint.	The Nuclear 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.	None
IWE-3000	No changes	N/A	N/A
IWE-3100	Removed "nondestructive" from the heading.	Non significant	None
IWE-3110	No change	N/A	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.	None
IWE-3112	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.	None
	Revised reference to IWA-6220 with a reference to IWA-6230.	Non significant - preparation of a NIS-1 form (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230).	None
	ASME Section XI generic change from repair and or replacement to repair/replacement activities, generically changed "Components" to "A component", and "reveals" to detects."	Non significant	None
IWE-3114	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.	None
	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None
IWE-3120	Removed "nondestructive" from the heading.	Non significant	None
IWE-3121	Removed "nondestructive" from the paragraph. Deleted references to IWE-3124 and IWE-3125 for the acceptance of flaws for continued service.	Non significant. The referenced subparagraphs did not actually apply to the acceptance of flaws for continued service.	None None
IWE-3122	Replaced the references to Table IWE-2500-1 and to IWE-3000 with a reference to subarticle IWE-3500. Deleted sentence, which addressed evaluations being subject to review by authorities. Revised reference to IWA-6220 with a reference to IWA-6230. Deleted reference to additional examination requirements of IWE-2430. Reworded several sentences. ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant - the changes are for clarity and to reconcile paragraph numbering. 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. Non significant - preparation of a NIS-1 form (IWA-6220) is included within the preparation requirements of the summary report (IWA-6230). IWE-2430 has been deleted and is discussed above. Non significant Non significant	None None None None None
IWE-3124	Replaced the reference to Table IWE-3410-1 with a reference to subarticle IWE-3500. ASME Section 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	None None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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.	None
IWE-3130	Changed "Components" to "A component," and "reveals" to detects."	Non significant	None
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.	None
IWE-3400	No change	N/A	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.	None
IWE-3430	No change	N/A	N/A
IWE-3500	No change	N/A	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; Removing the wording for responsible individual and for personnel qualifications; Combining IWE-3510.2 and IWE-3510.3 and removing specific VT-1 and VT-3 examination attribute wording; and	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. a) This change directly corresponds to the addition of IWE-2310(a) discussed above. This change directly corresponds to the addition of IWE-2320 discussed above. These changes directly correspond to the addition of IWE-2310(e)(1) and (2) discussed above.	See IWE-2300 above. See IWE-2310 above. See IWE-2320 above. See IWE-2310 above.

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3510 (cont'd.)	<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 correspond to the changes in the examination categories of Table IWE-2500-1 as discussed below and to the removal of examination requirements from 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>See IWE-2310 above and Table IWE-2500-1 below.</p> <p>See IWE-2310 above.</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.	None
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 1998 Edition.</p> <p>Combined IWE-3512.2 and IWE-3512.3 with changes into IWE-3511.2 and removed specific VT-1 examination attribute wording; and</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>See IWE-2300 above and Table IWE-2500-1 below.</p> <p>See IWE-2310 above.</p> <p>None</p> <p>See IWE-2310 above.</p>
IWE-3512	Changed "Containment vessel examination to "Examinations of Class MC pressure retaining components", and reworded paragraph.	Change does not revise the applicability of the paragraph.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-3513 IWE-3514 IWE-3515	Deleted subparagraphs IWE-3513, 3514 and 3515, which 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.	None
IWE-4000	No change	N/A	N/A
IWE-4100	No change	N/A	N/A
IWE-5000	No Change	N/A	N/A
IWE-5200	No change	N/A	N/A
IWE-5210	No change	N/A	N/A
IWE-5220	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWE-5221	Removed the quotation of 10 CFR 50 Appendix J paragraph IV.A. ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant - meeting the requirements of the referenced 10 CFR 50, Appendix J paragraph referenced is not affected by removing the quoted Appendix J paragraph. Non significant	None None
IWE-5222	ASME XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
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 therefor provides added assurance of the integrity of repaired/replaced areas.	None
IWE-5250	Changed "Corrective Measures" to "Corrective Action" in the heading.	Non significant	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Edition 1992 Addenda and the 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWE-5250, (cont'd)	ASME Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWE-7000	No change	N/A	None
IWE-7100	No change	N/A	None
Table IWE-2411-1	No change	N/A	N/A
Table IWE-2412-1	Replaced the separate entries for 1st and successive intervals with one entry for All intervals.	Non significant - The previous requirements for the 1st and successive intervals were identical. Therefore combining the entries does not affect any requirements.	None
Table IWE-2500-1 Examination Category E-A	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.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Ed. '92 Ad. and the 98 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A (cont'd.)	E1.12 Redesignated item from "accessible surface areas" to "wetted surfaces of submerged areas." Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.20 Added BWR to item description. Replaced examination method VT-3 with general visual.	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.	Performance of general and detailed visual examinations is discussed in IWE-2300 above.
	E1.30 Added item for moisture barriers with a general VT required each period.	Moisture barriers were previously included in examination category E-D with a VT-3 required each interval. Examining moisture barriers more frequently will assure reliable detection of conditions adverse to containment integrity.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
	All item numbers - Replaced reference to IWE-3510 for examination requirements with IWE-2310.	Non significant - Previously some examination requirements were contained in IWE-3500. They now exist in IWE-2300 as discussed above.	None

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Ed. '92 Ad. and the 98 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category E-A (cont'd.)	Notes - Revised to specifically include welds and bolting as part of the pressure retaining boundary requiring examination.	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.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-B	Deleted examination category, which addressed pressure retaining 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. Pressure retaining welds are now included in examination category E-A as addressed above.	None
Table IWE-2500-1 Examination Category E-C	<p>E4.11 Replaced examination method VT-1 with detailed visual.</p> <p>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 periods to the next inspection period. Deleted note 3, which discussed inspection deferrals.</p>	<p>Requiring a detailed visual examination 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 2500 as discussed above. Adding new references 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 of note 3 is non-significant.</p>	<p>Performance of detailed visual examinations is discussed in IWE-2300 above.</p> <p>None</p> <p>None</p> <p>None</p>

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TABLE CR-33.1

Comparison of the ASME Code, Section XI, 1992 Edition/1992 Addenda to 1998 Edition

Paragraph	Changes between IWE 1992 Ed. '92 Ad. and the 98 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
Table IWE-2500-1 Examination Category 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.	Performance of general visual examinations of moisture barriers is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category 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.	None
Table IWE-2500-1 Examination Category E-G	Deleted examination category, which addressed pressure retaining bolting.	Pressure retaining bolting is now included in examination category E-A as addressed above.	Performance of general visual examinations of welds and pressure retaining bolting is discussed in IWE-2300 above.
Table IWE-2500-1 Examination Category E-P	Deleted examination category, which addressed 10 CFR 50 Appendix J testing for all pressure retaining components.	10 CFR 50 Appendix J testing is mandated by plant technical specifications. Removing this duplicate requirement from IWE does not adversely affect component integrity.	None
Table IWE-2500-2	Added new Table 2500-2 – Ultrasonic Thickness Measurements For Augmented Examinations - which details gridding 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.	None
Table IWE-3410-1	Deleted table.	Non significant - the contents of the previous table are adequately addressed in IWE-3500.	None

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COMPONENT IDENTIFICATION

Code Class:	CC
Section XI Subsection:	IWL
Examination Category:	L-A
Description:	Authorization to Use the American Society of Mechanical Engineers (ASME) Section XI, 1998 Edition, Subsection IWL, for Examination of Class CC Components
Component Numbers:	All

CODE REQUIREMENT

1992 Edition, 1992 Addenda of Subsection IWL, "Requirements for Class CC Concrete Components of Light-Water Cooled Power Plants," of Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," Division 1, of the ASME Boiler and Pressure (BP&V) Vessel Code.

BASIS FOR RELIEF

Relief is requested from the requirements of 10 CFR 50.55a(g)(6), 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 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 specific difficulties imposed by the 1992 Edition, 1992 Addenda of Subsection IWL are as follows.

Paragraph IWL-2310 and IWA-2210 require specific minimum illumination and maximum direct examination distances for concrete examinations. Inaccessibility of higher areas makes 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.

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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 by 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 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.

PROPOSED ALTERNATE PROVISIONS

As an alternative to the requirements of the 1992 Edition, 1992 Addenda of the ASME Code, Section XI, Subsection IWL, LaSalle County Station will implement the requirements of the 1998 Edition of the ASME Code, Subsection IWL, in conjunction with the supplemental proposed alternatives listed in Table CR-34.01. The supplemental proposed alternatives further define our visual examination program and are consistent with other Code visual examinations. Table CR-34.01 details the changes between the 1992 Edition, 1992 Addenda of the ASME Code, Section XI, Subsection IWL, significance of each change, and a basis for use as an alternative examination.

APPLICABLE TIME FRAME

Relief is requested for the first ten-year interval of the Containment ISI Program for LaSalle County Station, Units 1 and 2.

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Table CR-34.01

Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-1100	ASME Code, 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	N/A
IWL-1210	No change	N/A	N/A
IWL-1220	No change	N/A	N/A
IWL-2100	Changed "Inspection" to "General" in heading. (a) Provided reference to IWA-2000 with exceptions from IWA-2210 and 2300 for visual examination personnel.	Non Significant (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	None See IWL-2310 below for supplemental proposed alternatives for the exceptions.
IWL-2200	No change	N/A	N/A
IWL-2210	No Change	N/A	N/A
IWL-2220	No Change	N/A	N/A
IWL-2230	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities	Non-significant	None

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Table CR-34.01

Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2300	No change	N/A	N/A
IWL-2310	a) Replaced VT-1C and VT-3C visual examination terminology with new VT General and VT Detailed Examination terms.	These changes are related to the IWL-2100 changes addressed above and are considered significant. (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 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.	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.

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Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2310 (cont'd)	<p>(b) Replaced reference to IWA-2210 for illumination levels, examination distances and resolution requirements with specific examination attributes.</p> <p>(c) Replaced reference to IWA-2300 for concrete examination personnel qualification requirements with provisions for the owner to define the examination personnel qualification requirements.</p>	<p>(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.</p> <p>(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</p>	<p>The General Visual and Detailed Visual examination 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 determined by the Responsible Engineer will be demonstrated to the Authorized 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 Inspector qualifications is developed from the guidelines of CP-189 and relies upon demonstration of the inspectors 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>

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Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2320	<p>Changed wording slightly.</p> <p>Made the ASME Code 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>	None
IWL-2400	No change	N/A	N/A
IWL-2410	No change	N/A	N/A
IWL-2420	No change	N/A	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.	None
IWL-2500	No change	N/A	N/A
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>	None
IWL-2520	No change	N/A	N/A
IWL-2521	No change	N/A	N/A

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Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-2522	Changed the heading and added a subparagraph to address tendon elongation.	The added details ensure proper tendon examination	None
IWL-2523	No change	N/A	N/A
IWL-2524	Changed wording consistent with the changes to IWL-2310 addressed above.	Non-significant	N/A
IWL-2525	Changed wording for sample analysis.	Non-significant	N/A
IWL-2526	Added a subparagraph addressing replacement of corrosion protection medium.	The added details ensure tendon integrity	None
IWL-3100	No change	N/A	N/A
IWL-3110	No change	N/A	N/A
IWL-3111	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities	Non-significant	N/A
IWL-3112	No change	N/A	N/A
IWL-3113	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities	Non-significant	N/A
IWL-3120	No change	N/A	N/A
IWL-3200	No change	N/A	N/A
IWL-3210	Removed the word concrete from the heading	Non-significant	N/A

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Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 Code Section XI generic change from repair and or replacement to repair/replacement activities.	The added details ensure proper tendon examinations. Non significant.	None
IWL-3212	No change	N/A	N/A
IWL-3213	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non-significant	None
IWL-3220	No change	N/A	N/A
IWL-3221	Added acceptance criteria attributes for tendon elongation, free water content and corrosion protection medium reduction.	The added details ensure proper tendon examinations.	None
IWL-3222	No change	N/A	N/A
IWL-3223	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non-significant	None
IWL-3300	No change	N/A	N/A
IWL-3310	Added applicability for other plants at the same site. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant Non significant	None None

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Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-3320	Deleted paragraph, which 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.	Any flaw or area of degradation that exceeds acceptance standards is required to be reported in the ISI Summary Report as required by IWA-6000 and the NRC Rulemaking (reference 3).
IWL-4000	ASME Code 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	None
IWL-4100	No change	N/A	N/A
IWL-4110	Exempted grease cups and installation screws from the scope. ASME Code Section XI generic change repair and or replacement to repair/replacement activities.	Non significant – the exempted items are non structural items. Non significant	None
IWL-4200	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
	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.	None

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Comparison of the ASME Code, Section XI, 1992 Edition/ 1992 Addenda to 1998 Edition

Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
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 Code 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>	None
IWL-4220	Changed paragraph number to 4230	Non significant	None
IWL-4230	<p>Changed paragraph number to 4240 and clarified by removing the word repair.</p> <p>ASME Code 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>	<p>Non significant</p> <p>Non significant</p> <p>The added detailed requirements ensure proper repair/replacement plan development for post-tensioning systems</p>	None
IWL-4300	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-5100	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None

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Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-5200	No change	N/A	N/A
IWL-5210	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
IWL-5220	No change	N/A	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.	None
IWL-5240	Deleted paragraph that addressed the scheduling of pressure tests.	Non significant – the schedule of pressure test are contained in IWE-500 as referenced in IWL-5230.	None
IWL-5250	Changed wording regarding the role of the Responsible Engineer in pressure test activities. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities. Changed VT terminology consistent with the changes to IWL-2310 addressed above.	The clarified role of the Responsible Engineer ensures proper pressure test procedures and examinations. Non significant The VT terminology changes are discussed in IWL-2310 above.	None
IWL-5260	Changed heading from Corrective Measures to Corrective Action. ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant Non significant	None

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Paragraph	Changes between IWL 1992 Edition 1992 Addenda and IWL 1998 Edition	Significance of change and or basis for use as an alternative examination	Supplemental Proposed Alternatives
IWL-5300	ASME Code Section XI generic change from repair and or replacement to repair/replacement activities.	Non significant	None
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.	None
Table IWL-2500-1	<p>Changed item 1.1.11 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>	None
Table IWL-2521-1	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."	Non significant - accommodates plant life extensions for tendon examinations	None
able IWL-2525-1	Added optional test methods for corrosion protection medium analysis	Non significant - additional test method options provides for more practical test implementation.	None