



April 24, 2000

L-2000-104  
10 CFR 50.4  
10 CFR 50.55a

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Metal Containment Inservice Inspection Program  
IWE First Ten-Year Interval  
Relief Requests IWE-01 and IWE-02

Pursuant to 10 CFR 50.55a (a)(3), Florida Power & Light Company (FPL) requests approval of IWE Relief Requests (IWE R/R) IWE-01 and IWE-02. FPL has determined pursuant to 10 CFR 50.55a (a)(3)(ii) that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

IWE R/R IWE-01 requests relief from the required visual examination (VT-3) of the seals and gaskets as specified in Table IWE-2500-1, Category E-D, Items 5.10 and 5.20, of the 1992 Edition, with 1992 Addenda of ASME Section XI. IWE R/R IWE-02 requests relief from the required bolt torque or tension test of the bolted connections as specified in Table IWE-2500-1, Category E-G, Item 8.20, of the 1992 Edition, with 1992 Addenda of ASME Section XI.

Approval of the above IWE R/Rs is requested by November 15, 2000, to support planning for the next St. Lucie Unit 1 outage (SL1-17) scheduled for the spring 2001. Please contact us if there are any questions about this submittal.

Very truly yours,

Rajiv S. Kundalkar  
Vice President  
St. Lucie Plant

RSK/GRM

Attachments (2)

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, St. Lucie Plant

ADK-7

**St. Lucie Units 1 and 2**  
**RELIEF REQUEST NUMBER IWE-01**

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**A. COMPONENT IDENTIFICATION:**

Class MC

Seals and gaskets of pressure retaining components and metal containment vessels, Class MC components, Category E-D, Item Numbers E5.10 and E5.20.

**B. EXAMINATION REQUIREMENT:**

Rules for Inservice Inspection of Nuclear Power Plant Components, Section XI, 1992 Edition with 1992 Addenda, Examination Category E-D Seals, Gaskets, and Moisture Barriers.

Section XI of the ASME B&PV code, 1992 Edition with 1992 Addenda, Table IWE-2500-1, requires visual examination (VT-3) of containment seals and gaskets.

**C. RELIEF REQUESTED:**

Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested from the required visual examination (VT-3) of the seals and gaskets as specified in Table IWE-2500-1, Category E-D, Items 5.10 and 5.20, of the 1992 Edition, with 1992 Addenda of ASME Section XI.

**D. BASIS FOR RELIEF:**

Seals and gaskets are tested by 10 CFR 50 Appendix J tests. As noted in 10 CFR 50 Appendix J, the purpose is to measure leakage of containment or penetrations whose design incorporates resilient seals, gaskets, and sealant compounds, and electrical penetrations fitted with flexible metal seal assemblies. Examinations of seals and gaskets require the joints, which are proven adequate through Appendix J testing, to be disassembled. For electrical penetrations, this would involve a pre-maintenance Appendix J test, de-termination of cables at electrical penetrations if enough slack is not available, disassembly of the joint, removal and examination of the seals and gaskets, re-assembly of the joint, re-termination of the cables if necessary, post maintenance testing of the cables, and a post maintenance Appendix J test of the penetration. The work required for the containment hatches would be similar except for the de-termination, re-termination, and testing of cables. This imposes a risk that equipment could be damaged. The 1992 Edition, 1993 Addenda, of Section XI recognizes that disassembly of joints to perform these examinations is not warranted. Examination Category E-D was modified to state that sealed or gasket connections need not be disassembled solely for performance of examinations. However, without disassembly, most of the surface of the seals and gaskets would be inaccessible.

For those penetrations that are routinely disassembled, a Type B test is required upon final assembly and prior to start-up. Since the Type B test will assure the leak tight integrity of primary containment, the performance of the visual examination would not increase the level of safety or quality.

This examination requirement was deleted from the 1998 edition of ASME Section XI.

Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

**E. PROPOSED ALTERNATIVE:**

The leak tightness of seals and gaskets will be tested in accordance with 10 CFR 50 Appendix J. No additional alternatives to the visual examination, VT-3, of the seals and gaskets will be performed.

**St. Lucie Units 1 and 2**  
**RELIEF REQUEST NUMBER IWE-01**

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**F. IMPLEMENTATION SCHEDULE:**

St. Lucie Units 1 and 2 First Inservice Inspection Interval for IWE

**G. ATTACHMENTS TO THE RELIEF:**

None

**St. Lucie Units 1 and 2  
RELIEF REQUEST NUMBER IWE-02**

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**A. COMPONENT IDENTIFICATION:**

Class MC

Pressure retaining bolting

**B. EXAMINATION REQUIREMENT:**

Rules for Inservice Inspection of Nuclear Power Plant Components, Section XI, 1992 Edition with 1992 Addenda, Examination Category E-G Pressure Retaining Bolting, Code Item E8.20, Bolted Connections.

Section XI of the ASME B&PV code, 1992 Edition with 1992 Addenda, Table IWE-2500-1, requires torque or tension testing on bolted connections that have not been disassembled and reassembled during the inspection interval.

**C. RELIEF REQUESTED:**

Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested from the required bolt torque or tension test of the bolted connections as specified in Table IWE-2500-1, Category E-G, Item 8.20, of the 1992 Edition, with 1992 Addenda of ASME Section XI.

**D. BASIS FOR RELIEF:**

Bolt torque or tension testing is required on all bolted connections that have not been disassembled and reassembled during the inspection interval. Determination of the torque or tension values would require that the bolting be un-torqued and then re-torqued or re-tensioned. The performance of the 10 CFR 50 Appendix J, Type B test itself proves that the bolt torque or tension remains adequate to provide a leak rate that is within acceptable limits. The torque or tension value of bolting only becomes an issue if the leak rate becomes excessive. Once a bolt is torqued or tensioned, it is not subject to dynamic loading that could cause it to experience significant change. Verification of torque or tension values on bolted joints that are proven adequate through Appendix J testing and visual inspection is adequate to demonstrate that design function is met. Torque or tension testing is not required on any other ASME Section XI, Class 1, 2, or 3 bolted connections or their supports as a part of the inservice inspection program.

This examination requirement was deleted from the 1998 Edition of ASME Section XI.

Compliance with the specified requirements of IWE-2500-1, Examination Category E-G, Item 8.20 would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

**E. PROPOSED ALTERNATIVE:**

The following examinations and tests are required by Subsection IWE to ensure the structural integrity and the leak tightness of Class MC pressure retaining bolted connections, therefore, no additional alternative examinations are proposed.

- 1) Exposed surfaces of bolted connections shall be visually examined in accordance with the requirements Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting, Item No. E8.10.

**St. Lucie Units 1 and 2**  
**RELIEF REQUEST NUMBER IWE-02**

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- 2) Bolted connections shall meet the pressure test requirements of Table IWE-2500-1, Examination Category E-P, All Pressure Retaining Components, Item E9.40.
- 3) A general visual examination of the entire containment once each inspection period shall be conducted in accordance with 10 CFR 50.55a(b)(2)(x)(E).

**F. IMPLEMENTATION SCHEDULE:**

St. Lucie Units 1 and 2 First Inservice Inspection Interval for IWE

**H. ATTACHMENTS TO THE RELIEF:**

None