

LaSalle Generating Station
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RA-07-036a

10 CFR 50.55a

July 20, 2007

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

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: Additional Information Supporting the Relief Request Associated with the Third Inservice Inspection (ISI) Interval and the Second Containment Inservice Inspection (CISI) Interval

- References:**
1. Letter from S. R. Landahl (Exelon Generation Company, LLC) to U. S. NRC, "Submittal of Relief Requests Associated with the Third Inservice Inspection (ISI) Interval and the Second Containment Inservice Inspection (CISI) Interval," dated April 30, 2007
 2. Letter from S. R. Landahl (Exelon Generation Company, LLC) to U. S. NRC, "In Service Inspection (ISI) Intervals," dated September 22, 2006
 3. Letter from A. J. Mendiola (U. S. NRC) to O. D. Kingsley, (Exelon Generation Company, LLC), "LaSalle County Station, Units 1 and 2 – Relief Request CR-35," dated December 27, 2001

In Reference 1, Exelon Generation Company, LLC, (EGC), requested NRC approval of the following relief requests for the Third Inservice Inspection (ISI) Interval, and the Second ISI interval of the Containment Inservice Inspection (CISI) Interval for LaSalle County Station (LSCS), Units 1 and 2.

1. Alternate Risk-Informed Selection and Examination Criteria for Examination Category B-F, B-J, C-F-1, and C-F-2 Pressure Retaining Piping Welds – 10 CFR 50.55a(a)(3)(i)
2. Examination of the High Pressure Core Spray (HPCS), Low Pressure Core Spray (HPCS), Residual Heat Removal (RHR) Pump Casing Welds – 10 CFR 50.55a(g)(5)(iii)
3. Examination of the Reactor Vessel (RPV) Stabilizer Bracket Welds on Shell Course – 10 CFR 50.55a(g)(5)(iii)

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4. Post-Tensioning Inspection Scheduling Requirements For Sites With Two Plants – 10 CFR 50.55a(a)(3)(i)
5. Alternative Pressure Testing of the RPV Head Flange Seal Leak Detection System – 10 CFR 50.55a(g)(5)(iii)
6. Continuous Pressure Monitoring of the Control Rod Drive (CRD) System Accumulators – 10 CFR 50.55a(a)(3)(i)
7. Alternative Pressure Testing of the Safety Relief Valve (SRV) Automatic Depressurization System (ADS) Accumulators – 10 CFR 50.55a(a)(3)(i)
8. Hydrogen Recombiner System Piping – 10 CFR 50.55a(a)(3)(ii)

In an email dated July 19, 2006, from Mr. S. P. Sands, NRC Project Manager to Alison Mackellar, EGC Licensing Engineer; additional information was requested to complete the review of the above relief requests. Subsequently, upon further review an error has been identified in the information provided in Reference 1 regarding relief requests 6 (i.e., I3R-09), 7 (i.e., I3R-10), and 8 (i.e., I3R-11) listed above. In a teleconference on July 12, 2007, EGC notified Mr. Sands of the error. This submittal of incorrect information supporting the subject relief requests has been entered into the EGC corrective action program.

During the teleconference on July 12, 2007, EGC agreed to provide to the NRC the corrected information in a supplemental letter. The attachment to this letter provides a resubmittal of the 10 CFR 50.55a relief requests for items 6 through 8 above. Please note that all of the attached relief requests were previously approved as a part of the previous ISI and CISI intervals for LSCS Units 1 and 2.

The third interval of the ISI and the second CISI interval programs comply with the 2001 Edition through the 2003 Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code. As detailed in Reference 2, the new inspection intervals for both the ISI and CISI programs will begin on October 1, 2007 and will conclude on September 30, 2017 for LSCS Units 1 and 2. Twelve months prior to the start of the new ISI and CISI intervals (i.e., September 30, 2006) the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b)(2) was the 2001 Edition through the 2003 Addenda.

EGC requests approval of these relief requests by January 31, 2008.

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Should you have any questions concerning this letter, please contact Mr. Terrence T. Simpkin, LSCS Regulatory Assurance Manager, at (815) 415-2800.

Respectfully,

A handwritten signature in black ink, appearing to read "Susan R. Landahl". The signature is fluid and cursive, with the first name "Susan" being the most prominent.

Susan R. Landahl
Site Vice President
LaSalle County Station

Attachment: 10 CFR 50.55a Relief Requests

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - LaSalle County Station

**Relief Requests Associated with the Third Inservice Inspection (ISI) Interval and the
Second Containment Inservice Inspection (CISI) Interval**

I3R-09

I3R-10

I3R-11

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**Request for Relief for Continuous Pressure Monitoring of the
Control Rod Drive (CRD) System Accumulators
In Accordance with 10 CFR 50.55a(a)(3)(i)**

1.0 ASME CODE COMPONENTS AFFECTED:

Code Class:	2
Reference:	IWC-2500, Table IWC-2500-1
Examination Category:	C-H
Item Number:	C7.10
Description:	Continuous Pressure Monitoring of the Control Rod Drive (CRD) System Accumulators
Component Number:	CRD Accumulators and Associated Piping

2.0 APPLICABLE CODE EDITION AND ADDENDA:

The Inservice Inspection program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 2001 Edition through the 2003 Addenda.

3.0 APPLICABLE CODE REQUIREMENT:

Table IWC-2500-1, Examination Category C-H, Item Number C7.10, requires all Class 2 pressure retaining components be subject to a system leakage test with a VT-2 visual examination in accordance with IWC-5220. This pressure test is to be conducted once each inspection period.

4.0 REASON FOR REQUEST:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative will provide an acceptable level of quality and safety.

LaSalle County Station, Units 1 and 2, Technical Specification (TS) Surveillance Requirement (SR) 3.1.5.1 requires each control rod scram accumulator pressure to be equal to or greater than 940 psig for the control rod scram accumulator to be considered operable. The SR is required to be met whenever the unit is operating in Modes 1 and 2. The accumulator pressure is continuously monitored by system instrumentation and surveillance is performed on a weekly basis that requires a physical walkdown of all CRD accumulators. The walkdown is intended to identify any system air leaks and negative trending in system pressure. The accumulators are isolated from the source of make up nitrogen, thus the continuous monitoring of the CRD accumulators currently

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functions as a pressure decay type test. The accumulators are maintained at a pressure of approximately 1100 psig during operation. Should accumulator pressure fall below 1000 psig (-15 psig), an alarm is received in the control room. The pressure drop for the associated accumulator is then recorded in the control room log, and the accumulator is recharged by station procedure LOP-RD-20, "Control Rod Accumulator Recharging/Water Removal." Other corrective actions, including soap bubble application to locate leakage or equipment repair are performed, as required, in accordance with the Corrective Action Program.

Since the monitoring of the nitrogen side of the accumulator at pressures consistent with the requirements of Table IWC-2500-1 is continuous, any degradation of the accumulator and associated piping would be detected by normal system instrumentation. The accumulators are normally passive components and are susceptible to slow developing failure modes. Corrosion and tubing connection integrity are the primary modes of failure. Continuous monitoring will detect degrading conditions of individual accumulators due to these failure modes before similar detection by the code required examination. The continuous monitoring of the CRD accumulators and associated piping exceeds the code requirement of inspecting the system once per inspection period. The additional VT-2 visual examination performed once per inspection period would not provide an increase in safety, system reliability, or structural integrity. In addition, performance of a VT-2 visual would require applying a leak detection solution to 185 accumulators per unit in an elevated dose rate area. This results in radiation exposure (estimated 150-400 mrem) without any added benefit in the level of quality and safety. This inspection would not be consistent with As Low As Reasonably Achievable (ALARA) practices.

Relief is requested from the performance of system pressure tests and VT-2 visual examination requirements specified in Table IWC-2500-1 for the nitrogen side of the CRD system accumulators and associated piping on the basis that the requirements of SR 3.1.5.1 exceeds the code required examinations.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE:

As an alternate to the VT-2 visual examination requirements of Table IWC-2500-1, LaSalle County Station will perform continuous pressure decay monitoring for the nitrogen side of the CRD Accumulators and associated piping and a weekly surveillance in accordance with Technical Specification Surveillance Requirements, SR 3.1.5.1 that requires a physical walkdown of all CRD accumulators.

6.0 DURATION OF PROPOSED ALTERNATIVE:

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Relief is requested for the Third Ten-Year Inspection Interval for LaSalle County Station Units 1 and 2.

7.0 PRECEDENTS:

Similar relief requests have been approved for:

LaSalle County Station Second Inspection Interval Relief Request PR-08 was authorized per SER dated June 28, 2002. The Third Inspection Interval Relief Request utilizes an identical approach as was previously approved.

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**Request for Relief for Alternative Pressure Testing of the Safety Relief Valve (SRV)
Automatic Depressurization System (ADS) Accumulators
In Accordance with 10 CFR 50.55a(a)(3)(i)**

1.0 ASME CODE COMPONENTS AFFECTED:

Code Class:	2
Reference:	IWC-2500, Table IWC-2500-1
Examination Category:	C-H
Item Number:	C7.10
Description:	Alternative Pressure Testing of the Safety Relief Valve (SRV) Automatic Depressurization System (ADS) Accumulators
Component Number:	SRV ADS Accumulators and Associated Piping

2.0 APPLICABLE CODE EDITION AND ADDENDA:

The Inservice Inspection program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 2001 Edition through the 2003 Addenda.

3.0 APPLICABLE CODE REQUIREMENT:

Table IWC-2500-1, Examination Category C-H, Item Number C7.10, requires all Class 2 pressure retaining components be subject to a system leakage test with a VT-2 visual examination in accordance with IWC-5220. This pressure test is to be conducted once each inspection period.

4.0 REASON FOR REQUEST:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative will provide an acceptable level of quality and safety.

LaSalle County Station surveillance procedures LTS-500-18 "Unit 1 Main Steam Safety Relief Valve Operability" and LTS-500-19 "Unit 2 Main Steam Safety Relief Valve Operability" perform operability testing of the main steam safety relief valves including the seven relief valves and accumulators per unit that are required to provide automatic depressurization. These surveillances are performed on a refueling outage frequency as a requirement of LaSalle County Station's Inservice Testing (IST) program. One specific test that these surveillances perform is a pressure decay test of the ADS accumulators, associated piping and valves. The pressure decay test is performed by isolating and

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pressurizing the ADS accumulators and associated piping to the nominal operating pressure (i.e., 100 pounds per square inch, gauge). The decay in pressure is then monitored through calibrated pressure measuring instrumentation. If the acceptable pressure decay criteria are exceeded, the surveillances identify appropriate troubleshooting steps to perform, including soap-bubble application to locate leakage. The pressure decay tests performed as part of LTS-500-18 and LTS-500-19 will identify any degradation of the ADS accumulators and associated piping. The volume tested by these surveillances encompasses the entire ASME Section XI code boundary. These surveillances are performed on a greater frequency than the required period frequency of Table IWC-2500-1 and the test pressure is consistent with the pressure requirements of Table IWC-2500-1. Thus, the testing performed during these surveillances will provide the same level of quality and safety as the pressure testing and the VT-2 visual examination requirements of Table IWC-2500-1. The additional VT-2 visual examination performed once per inspection period would not provide an increase in safety, system reliability, or structural integrity. In addition, performance of a VT-2 visual examination would require applying a leak detection solution to seven accumulators per unit and associated piping in an elevated dose rate area with limited access. This results in radiation exposure (estimated 200-400 mrem) without any added benefit in the level of quality and safety. This inspection would not be consistent with As Low As Reasonably Achievable (ALARA) practices.

Relief is requested from the performance of system pressure tests and the VT-2 visual examination requirements specified in Table IWC-2500-1 for the SRV ADS Accumulators and associated piping on the basis that the existing LaSalle County Station surveillances provide an acceptable level of quality and safety.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE:

As an alternate to the examination requirements of Table IWC-2500-1, LaSalle County Station will perform pressure decay testing on the ADS Accumulators and associated piping every refueling outage in accordance with surveillance procedures LTS-500-18 for Unit 1 and LTS-500-19 for Unit 2.

6.0 DURATION OF PROPOSED ALTERNATIVE:

Relief is requested for the Third Ten-Year Interval of the Inservice Inspection Program for LaSalle County Station Units 1 and 2.

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7.0 PRECEDENTS:

Similar relief requests have been approved for:

LaSalle County Station Second Inspection Interval Relief Request PR-10 was authorized per SER dated June 28, 2002. The Third Inspection Interval Relief Request utilizes an identical approach as was previously approved.

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**Request for Relief for Hardship Or Unusual Difficulty Without Compensating Increase In
Level Of Quality Or Safety for Hydrogen Recombiner System Piping
In Accordance with 10 CFR 50.55a(a)(3)(ii)**

1.0 ASME CODE COMPONENTS AFFECTED:

Code Class:	2
Reference:	IWC-2500, Table IWC-2500-1
Examination Category:	C-H
Item Number:	C7.10
Description:	Hydrogen Recombiner System Piping
Component Number:	HG Unit Cross-Tie Piping
	From check valve 1HG007 to check valve 2HG016
	From check valve 1HG016 to check valve 2HG007
	From check valve 1HG009 to check valve 2HG006B
	From check valve 1HG006B to check valve 2HG009

2.0 APPLICABLE CODE EDITION AND ADDENDA:

The Inservice Inspection program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 2001 Edition through the 2003 Addenda.

3.0 APPLICABLE CODE REQUIREMENT:

Table IWC-2500-1, Examination Category C-H, Item Number C7.10, requires all Class 2 pressure retaining components be subject to a system leakage test with a VT-2 visual examination in accordance with IWC-5220. This pressure test is to be conducted once each inspection period.

IWC-5210(b)(2) requires test procedure to include methods for detection and location of through-wall leakage from the components of the system tested when the pressurizing medium is gas.

4.0 REASON FOR REQUEST:

Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

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Relief is requested from the system pressure test requirements of IWC-5221 and the periodicity requirements of Table IWC-2500-1, as well as the requirements of IWC-5210(b)(2) as applied to the cross-tie piping of the Hydrogen Recombiner System, as depicted on page 3 in Figure I3R-11.1 and as defined in above Component Numbers. Air is used as the pressurizing medium for the Hydrogen Recombiner System because the system contains air during normal operation. The application of a leak detection solution (e.g., soap bubble solution) to the surface of the piping would be necessary per IWC-5210(b)(2) in order to allow for the detection and location of potential through-wall air leakage. To access the surface of the cross-tie piping, scaffolding will be required because there are long runs of piping located approximately 30 feet overhead. An estimated 600 person-hours and accumulated dose of 1.25 Rem would be required to erect scaffolding and perform a leakage test of cross tie piping. Furthermore, a significant amount of scaffolding would have to be erected around several sensitive instrument racks and systems on both units that, if jarred, could result in a unit trip or other challenges to the operators.

Alternatively, LaSalle County Station will challenge the unit cross-tie piping to provide assurance of its structural integrity by performing pressure test at peak accident pressure and applying a soap bubble solution to all pipe welds once per Inspection Interval. Necessary scaffolding will be erected and leak detection solution will be applied to the surface of the unit cross-tie piping to the extent required by IWC-5210(b)(2) if through wall leakage is detected during pressure testing of accessible components and associated piping, which is performed once every Inspection Period, or if through wall leakage is detected during pressure testing unit cross tie piping welds. The condition of the accessible components as determined by pressure testing of the accessible components once every Inspection Period in accordance with the Section XI rules would be indicative of that of the inaccessible components. Both the accessible and inaccessible components are designed/constructed to the same requirements and are subject to similar operating conditions. Additionally, the Hydrogen Recombiners, including the unit cross-tie piping, are functionally tested every refuel outage to verify system temperature, pressure, and flow requirements to further insure system operability and structural integrity.

Based on the above discussion, reasonable assurance of the unit cross-tie piping structural integrity is achieved by the performance of the alternate pressure test of piping welds once every Inspection Interval.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE:

A pressure test will be performed on the unit cross-tie piping welds, at peak accident pressure, once each Inspection Interval.

Necessary scaffolding will be erected and leak detection solution will be applied to the surface of the unit cross-tie piping to the extent required by IWC-5210(b)(2) if:

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- Through wall leakage is detected during pressure testing of accessible components and associated piping. (Remainder of system for which no relief is requested)

OR

- Through wall leakage is detected during pressure testing of unit cross-tie piping welds.

6.0 DURATION OF PROPOSED ALTERNATIVE:

Relief is requested for the Third Ten-Year Inspection Interval for LaSalle County Station Units 1 and 2.

7.0 PRECEDENTS:

Similar relief requests have been approved for:

LaSalle County Station Second Inspection Interval Relief Request PR-12 was authorized per SER dated October 6, 2000. The Third Inspection Interval Relief Request utilizes an identical approach as was previously approved in the Second Inspection Interval.

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Figure I3R-11.1

