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RS-10-193

10 CFR 50.55a

November 5, 2010

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Relief Request Associated with the Third Inservice Inspection Interval

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (a)(3)(ii), Exelon Generation Company, LLC (EGC), hereby requests NRC approval of the attached relief request associated with the Third Inservice Inspection (ISI) Interval for Clinton Power Station, Unit 1 (CPS). The third interval of the CPS, ISI program complies with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2004 Edition.

Proposed Relief Request Number I3R-07 requests approval of an alternative to performance of VT-2 visual inspections for Instrument Air system piping associated with Main Steam Isolation Valves. A Relief Request similar to I3R-07 has previously been approved for use at CPS.

EGC requests approval of this request by November 5, 2011.

There are no regulatory commitments contained within this letter.

Should you have any questions concerning this letter, please contact Mr. Mitchel A. Mathews at (630) 657-2819.

Sincerely,

Jeffrey L. Hansen
Manager – Licensing
Exelon Generation Company, LLC

Attachment: 10 CFR 50.55a Request Number I3R-07

ATTACHMENT
10 CFR 50.55a Request Number I3R-07
Hardship or Unusual Difficulty Without Compensating Increase In Level of Quality or Safety (10 CFR 50.55a(a)(3)(ii))

1.0 ASME CODE COMPONENTS AFFECTED:

Code Class:	3
Component Number:	Multiple lines (see Note below)
Examination Category:	D-B
Item Number:	D2.10
Description:	Alternative to Performance of System Pressure Tests and VT-2 Visual Examination Requirements for all Inservice Inspection (ISI) Class 3 Instrument Air (IA) Piping Supplying Eight (8) Main Steam Isolation Valves (MSIVs)

Note: A more detailed description of the pressure testing boundary is identified below.

The following ISI Class 3 Instrument Air (IA) system piping and components require inspection. This includes the following IA lines and valves supplying all eight (8) MSIVs (i.e., four (4) inboard and four (4) outboard).

- Drawing M10-9002 Sheet 5 lines – 1MS79AA/BA/CA/DA, 1MS79AC/BC/CC/DC, 1MS79AB/BB/CB/DB, 1MS80AA/BA/CA/DA, 1MS80AC/BC/CC/DC, and 1MS80AB/BB/CB/DB.
- Drawing M10-9002 Sheet 5 valves – 1B21-F083A/B/C/D, 1B21F024A/B/C/D, 1B21-F084A/B/C/D and 1B21-F029A/B/C/D.
- Drawing M10-9002 Sheet 5 accumulators - 1B21-A001A/B/C/D and 1B21-A002A/B/C/D

2.0 APPLICABLE CODE EDITION AND ADDENDA:

The code of record for the third 10-year Inservice Inspection Program interval at Clinton Power Station, Unit 1 (CPS) is the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 2004 Edition.

3.0 APPLICABLE CODE REQUIREMENT:

Table IWD-2500-1, Examination Category D-B, Item Number D2.10, requires all ISI Class 3 pressure retaining components be subject to a system leakage test with a VT-2 visual examination in accordance with Paragraph IWD-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)(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.

Performance of a VT-2 visual examination would require applying a leak detection solution to this piping and components, all of which are in elevated dose rate areas with limited access. VT-2 visual inspections would result in an estimated additional radiation exposure of 0.5 rem, and industrial safety challenges without any added benefit in the level of quality and safety. These inspections would not be consistent with As Low As Reasonably Achievable (ALARA) radiation exposure practices.

Relief is requested from the performance of system pressure tests and VT-2 visual examination requirements specified in Table IWD-2500-1 for all ISI Class 3 IA piping, valves and components supplying all eight (8) MSIVs at CPS.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE:

As an alternative to the examination requirements of Table IWD-2500-1, CPS will perform pressure decay testing on the ISI Class 3 IA piping supplying all eight (8) MSIVs as required in surveillance procedure CPS-9061.11, "Instrument Air Check Valve Operability and Pipe Pressure Test."

Surveillance procedure CPS 9061.11, verifies the operability of MSIV closure capability and check valve repositioning in the IA supply lines to all eight (8) MSIVs. This surveillance is performed for each individual MSIV as a requirement of the CPS Inservice Testing (IST) Program. One specific test this surveillance performs is a pressure decay test of the MSIV air supply components. The pressure decay test is performed by pressurizing and isolating these accumulators and associated piping at nominal operating pressure. The decay in pressure is then monitored through calibrated pressure measuring instrumentation. If any pressure decay acceptance criterion as shown in Table 1 below is exceeded, the surveillance identifies appropriate troubleshooting steps to perform, including soap-bubble application to locate leakage.

The pressure decay test performed as part of CPS 9061.11 identifies any degradation of the ISI Class 3 IA supply piping to the MSIVs and associated isolation check valves, accumulators and valves. The volume tested by this surveillance encompasses all piping and components requiring testing under ASME Section XI for these portions of the IA system. This surveillance is performed each 24-month refueling cycle, which is a greater frequency than that required in Table IWD-2500-1 and the test pressure is consistent with the pressure requirements of this table. Thus, the testing performed during this surveillance will provide the same level of quality and safety as the pressure testing and VT-2 visual examination requirements of Table IWD-2500-1.

The VT-2 visual examination described in Table IWD-2500-1, which is 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 a large amount of piping and components, all of which are in elevated dose rate areas with limited access. VT-2 visual inspections would result in estimated additional radiation exposure of 0.5 rem and industrial safety challenges without any added benefit in the level of quality and safety. These inspections would not be consistent with ALARA radiation exposure practices.

In summary, relief is requested from the performance of system pressure tests and VT-2 visual examination requirements specified in Table IWD-2500-1 for the ISI Class 3 IA system piping and components identified in this request 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.

6.0 DURATION OF PROPOSED ALTERNATIVE:

Relief is requested for the Third 10-Year Inspection Interval for CPS.

7.0 PRECEDENTS:

Similar relief requests have been approved for:

- CPS Second ISI Interval Relief Request 4212, Revision 1 was authorized for use by the NRC in a Safety Evaluation dated December 13, 2007. This relief request utilizes an identical approach as was previously approved.

- LaSalle County Station Second Inspection Interval Relief Requests PR-08 and PR-10 were authorized in a safety evaluation dated June 28, 2002.

Table 1: Acceptance Criteria from CPS Procedure CPS-9061.11 (For Information Only)

Component	Leakage Criterion	Pressure Drop Test Duration	Comments
Accumulator Headers for all MSIVs	≤ 1.5 psig	≥ 63 minutes	Performed under Sections 8.11 and 8.14 of CPS Procedure 9061.11