

RS-11-132

August 19, 2011

10 CFR 50.55a

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

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

Subject: Response to Request for Additional Information Related to Relief Request I3R-07  
(TAC No. ME4985)

References:

1. Letter from Jeffrey L. Hansen (Exelon Generation Company, LLC (EGC)) to U. S. NRC, "Relief Requests Associated with the Third Inservice Inspection Interval," dated November 5, 2010
2. Letter from U. S. NRC to M. J. Pacilio (EGC), "Clinton Power Station, Unit No. 1 - Request for Additional Information Related to Relief Request Associated with the Third Inservice Inspection Interval (TAC No. ME4985)," dated July 21, 2011

In Reference 1, Exelon Generation Company, LLC (EGC) requested approval of a relief request associated with the Third 10-year Inservice Inspection (ISI) Program Interval at Clinton Power Station, Unit 1 (CPS). The purpose of the relief request is to allow performance of a pressure decay test in lieu of a VT-2 visual inspection for Instrument Air system piping associated with the Main Steam Isolation Valves.

During its review of Reference 1, the NRC found that additional information was required to support its review as discussed in Reference 2. The requested information is provided in the attachments to this letter.

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There are no regulatory commitments contained within this letter.

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

Respectfully,

A handwritten signature in black ink, appearing to read 'D M Gullott', with a long horizontal flourish extending to the right.

David M. Gullott  
Manager – Licensing  
Exelon Generation Company, LLC

Attachment: Response to NRC Request for Additional Information

**Attachment  
Response to NRC Request for Additional Information**

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**Question 1**

***Please provide the following information not included in the relief request (RR):***

- a. Diameter and material of the subject piping.***

**EGC Response**

The diameter of the majority of the instrument air piping supplying the inboard and outboard Main Steam isolation Valves (MSIVs) is ½ inch, but also includes some 2 inch piping containing a few ¾ inch drain taps. This piping is seamless austenitic stainless steel (i.e., American Society of Mechanical Engineers (ASME) SA-312 or SA-376, Grade TP304).

- b. Length of the instrument air piping. (Approximately how many feet of instrument air pipe are covered in the proposed RR?)***

**EGC Response**

This request is applicable to approximately 360 feet of piping based on field walkdowns. This estimate is based on lengths of piping in the order of 40 feet for each of the four inboard MSIVs and 50 feet for each of the four outboard MSIVs.

**Question 2**

***Please provide/discuss the following and provide the technical basis of your response:***

- a. Section 5.0 of the RR states that the pressure decay test is performed at normal operating pressure; however, the normal operating P/T was not included in the relief request. Provide the normal operating pressure.***

**EGC Response**

The normal operating pressure of the Instrument Air (IA) system supplying the MSIV accumulators is 110 psig.

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- b. Table 1 in the RR shows that the acceptance criterion for leakage is less than or equal to 1.5 psig, but did not discuss how this acceptance criterion was determined. Provide the technical basis of this criterion. In the pressure decay test, how will you determine whether the unacceptable pressure decay, if any, is due to leakage from pipe cracks or valve leak-through? If leakage is detected, such as a through wall crack in the pipe, what corrective actions will be taken?***

**EGC Response**

Design calculations determined that each MSIV would need 35 gallons of air to close an MSIV following the failure of the normal air supply. The sizing of MSIV air system piping is based on continuous leakage of one standard cubic foot per hour (SCFH) at the minimum air pressure of 100 psig. Each MSIV has an air accumulator that is slightly oversized at 39 gallons to provide additional margin. The pressure decay test acceptance criterion is based upon leakage equaling one-half of the assumed one SCFH continuous leakage, or 0.5 SCFH. This equates to a pressure drop of 0.0242 psi per minute. For a 63 minute test, the total pressure drop would be 1.5 psig. The 63 minute test duration is based on the resolution of the instrument used for the test and the time necessary to obtain conclusive and reliable results.

If the pressure drop measured during the test exceeds 1.5 psig, the affected piping will be inspected using a soapy liquid leak detecting solution to locate any leakage. Leakage that is located will be corrected until satisfactory results are obtained. If through-wall leakage from a safety related component is discovered, the component will be repaired or replaced in accordance with the applicable ASME Code requirements.