From:	Purnell, Blake
Sent:	Thursday, May 14, 2020 8:53 AM
To:	Neff, David B:(GenCo-Nuc)
Cc:	Salgado, Nancy; Rafferty-Czincila, Shannon B:(GenCo-Nuc); david.helker@exeloncorp.com
Subject:	Exelon Generation Company, LLC - Request for Additional Information Regarding Request to Extend Safety Relief Valve Test Interval
Attachments:	FINAL RAI - Exelon SRV Test Interval.pdf

Mr. Neff:

By application dated February 4, 2020 (Agencywide Documents Access and Management System Accession No. ML20036D962), Exelon Generation Company, LLC (the licensee) submitted a request in accordance with paragraph 50.55a(z)(1) of Title 10 of the Code of Federal Regulations (10 CFR) for a proposed alternative to the requirements of 10 CFR 50.55a and the American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants at Clinton Power Station (Clinton), Unit No. 1; Dresden Nuclear Power Station, Units 2 and 3; Nine Mile Point Nuclear Station, Unit 2; Peach Bottom Atomic Power Station, Units 2 and 3; and Quad Cities Nuclear Power Station, Units 1 and 2. The proposed alternative would allow the licensee to extend the safety relief valve test interval at these facilities. However, the U.S. Nuclear Regulatory Commission (NRC) staff notes that the request for Clinton is only for the remainder of the current inservice testing interval, which ends in June 2020. Thus, the proposed alternative is unlikely to benefit Clinton unless the request is revised.

The NRC staff is reviewing the application and has determined that additional information is needed to complete the review. A response to the attached request for additional information is requested to be provided within 30 days from the date of this email. If you have any questions, please contact me at (301) 415-1380.

Sincerely,

Blake Purnell, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Docket Nos. 50-461, 50-237, 50-249, 50-410, 50-277, 50-278, 50-254, and 50-265

EPIDS L-2020-LLR-0014 through L-2020-LLR-0018

OFFICE	NRR/DORL/LPL3/PM	NRR/DEX/EMIB	NRR/DORL/LPL3/BC
NAME	BPurnell	TScarbrough	NSalgado
DATE	5/14/20	5/1/20	5/12/20

Hearing Identifier: NRR_DRMA
Email Number: 583

Mail Envelope Properties (CH2PR09MB43612197CAA8B9BE9048A435E6BC0)

Subject: Exelon Generation Company, LLC - Request for Additional Information Regarding Request to Extend Safety Relief Valve Test Interval
Sent Date: 5/14/2020 8:53:09 AM
Received Date: 5/14/2020 8:53:00 AM
From: Purnell, Blake

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Post Office: CH2PR09MB4361.namprd09.prod.outlook.com

Files	**Size**	**Date & Time**
MESSAGE	1915	5/14/2020 8:53:00 AM
FINAL RAI - Exelon SRV Test Interval.pdf	151598	

Options
Priority: Normal
Return Notification: No
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Sensitivity: Normal
Expiration Date:

REQUEST FOR ADDITIONAL INFORMATION

EXELON GENERATION COMPANY, LLC

PROPOSED ALTERNATIVE TO EXTEND SAFETY RELIEF VALVE TEST INTERVAL

DOCKET NOS. 50-461, 50-237, 50-249, 50-410, 50-277, 50-278, 50-254, AND 50-265

By application dated February 4, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20036D962), Exelon Generation Company, LLC (the licensee) submitted a request in accordance with paragraph 50.55a(z)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR) for a proposed alternative to the requirements of 10 CFR 50.55a and the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) at Clinton Power Station (Clinton), Unit No. 1; Dresden Nuclear Power Station (Dresden), Units 2 and 3; Nine Mile Point Nuclear Station, Unit 2 (NMP-2); Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3; and Quad Cities Nuclear Power Station (Quad Cities), Units 1 and 2. The proposed alternative would allow the licensee to extend the safety relief valve (SRV) test interval at these facilities.

The U.S. Nuclear Regulatory Commission (NRC) has reviewed the application and determined that the information below is needed to complete its review.

Request for Additional Information (RAI) 1

Currently, each of the licensee's facilities is required to test at least 20 percent of the SRVs every 24 months. As an alternative to this requirement, the licensee proposes to test 40 percent of the SRVs at each facility within a 48-month interval. For each facility, the SRV models affected by the proposed alternative are listed in the table below. Under the proposed alternative, it is possible for more than 24 months to elapse between tests of an SRV model.

Facility	**SRV Models**
Clinton	Dikkers Model G-471
Dresden Units 2 and 3	Target Rock 3-Stage Model 67F
NMP-2	Dikkers Model G-471
Peach Bottom Units 2 and 3	Target Rock Models 73-67F and 74-67F
Quad Cities Units 1 and 2	Target Rock 3-Stage Model 74-67F and Dresser Model 3777Q

Describe any plans to coordinate and share data regarding the SRV testing program at different units and sites that have the same SRV model. Describe any measures to obtain information on the performance of the various model SRVs at intervals more frequent than once every 48 months, such as staggering the testing at different reactor units that have the same SRV model.

RAI 2

For each facility, Exelon is requesting an alternative to the requirements in paragraph I-1320(a) of the ASME OM Code, Mandatory Appendix I. However, the facilities are not all on the same edition and addenda of the ASME OM Code. Currently, the 2004 Edition through 2006

Addenda of the ASME OM Code is applicable to Dresden and Quad Cities, and the 2012 Edition of the ASME OM Code is applicable to Clinton, NMP-2, and Peach Bottom.

Paragraph I-1320(a) of the 2004 Edition of the ASME OM Code, Mandatory Appendix I, states:

> Class 1 pressure relief valves shall be tested at least once every 5 years, starting with initial electric power generation. No maximum limit is specified for the number of valves to be tested within each interval; however, a minimum of 20% of the valves from each valve group shall be tested within any 24-month interval. This 20% shall consist of valves that have not been tested during the current 5-year interval, if they exist. The test interval for any individual valve shall not exceed 5 years.

Paragraph I-1320(a) of the 2012 Edition of the ASME OM Code, Mandatory Appendix I, states:

> Class 1 pressure relief valves shall be tested at least once every 5 yr [years], starting with initial electric power generation. No maximum limit is specified for the number of valves to be tested within each interval; however, a minimum of 20% of the valves from each valve group shall be tested within any 24-mo [month] interval. This 20% shall consist of valves that have not been tested during the current 5-yr interval, if they exist. The test interval for any installed valve shall not exceed 5 yr. The 5-yr test interval shall begin from the date of the as-left set pressure test for each valve.

Describe any differences in the implementation of the proposed alternative between sites that use the 2004 Edition of the ASME OM Code and sites that use the 2012 Edition of the ASME OM Code.

RAI 3

The proposed alternative relies, in part, on the implementation of the Exelon SRV Best Practices Maintenance program at the facilities. However, the application only provides limited information about this program. On June 4, 2019, Exelon described its SRV[1] Best Practices Maintenance program at a public pre-application meeting for the proposed alternative (see ADAMS Accession No. ML19162A027). The Exelon presentation at the meeting identified four pillars of the program: (1) spring testing, which includes physical dimension measurements and compression rate evaluation; (2) SRV lapping techniques and tools; (3) SRV set pressure adjustment methodology precision; and (4) Target Rock SRV average delay time trending performance improvement.

Describe the SRV Best Practices Maintenance program and how it will be implemented to support the proposed alternative. The response should discuss each of the four pillars mentioned in the June 4, 2019, presentation.

[1] SRVs are also referred to as main steam safety valves (MSSVs) in Exelon's presentation.