

June 5, 2003

Mr. Michael Mulligan
New England Coalition on Nuclear Pollution
5 Woodlawn Lane
Hinsdale, NH 03451

Dear Mr. Mulligan:

I am writing in response to your May 15, 2003, e-mail to me regarding your concerns with safety/relief valves (SRVs) at Quad Cities Nuclear Power Station (Quad Cities), Unit 2. Specifically, you provided comments on the exigent amendment approved by the NRC on May 8, 2003, regarding Unit 2 main steam power operated relief valve (PORV) testing. I discussed your e-mail with you by telephone on May 15. During the conversation you stated that you had no clarifications and did not desire to make an allegation. You subsequently forwarded a "background" e-mail regarding your concerns with SRVs at LaSalle County Station and Limerick Generating Station. Your concerns are related to the following matters:

1. The characterization of leaking SRVs and torus/suppression pool cooling problems in past NRC inspection reports for Quad Cities
2. Whether or not the amendment involved a "different accident not previously analyzed."
3. The exigent circumstances of the amendment
4. How the proposed testing on the PORVs assures valve reliability
5. The basis for issuing the license amendment without addressing underlying "problems with management"
6. The safety culture at Exelon in view of the licensee's previous experience with SRV deficiencies at LaSalle and Limerick

You sent additional e-mails to me on May 23, 2003 (two e-mails), and on May 25, 2003 (one e-mail). Those e-mails were regarding your concerns related to the following matters:

7. The design criteria regarding leakage for relief valves
8. The additional attention required by control room operators due to leaking relief valves

The staff has reviewed your concerns. Our responses are given below. Enclosed for your information is a copy of Amendment Nos. 215/209, issued to Exelon for Quad Cities on May 8, 2003.

Concern 1: Prior to the April 16, 2003, inadvertent opening of a Target Rock PORV at Quad Cities, Unit 2, the most recent relief valve failure at Quad Cities was of an Electromatic relief valve (ERV) on Unit 2 in 1993. Prior to the 1993 ERV failure, Quad Cities had a history of various problems with ERVs, going back to 1980. The licensee's poor experience with the ERVs contributed to its decision to replace the four original ERVs on Unit 2 with PORVs in 1995 in hope of better performance. The licensee retained the ERVs on Unit 1. After replacing of the valves on Unit 2 in 1995, the licensee did not have any notable problems with relief valves on either unit until the April 16, 2003, event. Quad Cities does not have a history of excessive operation of suppression pool cooling due to leaking relief valves. Therefore, we did not substantiate your concern.

Concern 2: Whether or not the amendment involved a “different accident not previously analyzed” was evaluated by the NRC staff in reaching its final no significant hazards consideration determination, which is included in Section 5.0 of the safety evaluation for the amendment. The staff determined that the proposed changes did not create the possibility of a new or different kind of accident from any previously evaluated. Therefore, we did not substantiate your concern.

Concern 3: The exigent circumstances of the amendment are discussed in Section 4.0 of the safety evaluation for the amendment. The NRC staff determined that exigent circumstances existed and that the licensee used its best efforts to make a timely application and did not cause the exigent situation. Therefore, we did not substantiate your concern.

Concern 4: The basis for the staff’s conclusion that the proposed testing would assure the reliability of the valves is discussed in Section 3 of the safety evaluation for the amendment. To summarize, a manual actuation and valve leakage test will be performed at a certified test facility using test conditions similar to those for the installed valves in the plant, including valve orientation, ambient temperature, valve insulation, and steam conditions. This test also demonstrates that the solenoid coil is capable of actuating the PORV pilot valve. Following valve installation, the licensee’s proposed testing includes verifying proper electrical connection and solenoid coil continuity. Therefore, all of the components necessary to manually actuate the PORVs will continue to be tested to demonstrate the functional capability of the PORVs, without the need to stroke-test the valves online with system steam pressure conditions. Therefore, we did not substantiate your concern.

Concern 5: The amendment was processed in accordance with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR 50.90). Before issuing the amendment, the Commission concluded, as described in the safety evaluation for the amendment, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public. The staff finds your concern regarding underlying “problems with management” to be general and that you did not provide specific details in support of the issue. Therefore, we did not substantiate your concern.

Concern 6: The staff finds your concern to be general and that you did not provide specific details in support of the issue. However, please be advised that when equipment is identified to be inoperable during any plant condition, licensees are required to evaluate the impact of such inoperability during all applicable plant conditions and to take corrective action to provide assurance that the equipment will perform its intended safety function. Such licensee evaluations are subject to NRC inspections or audits. Therefore, we did not substantiate your concern.

Concern 7: The staff has responded to you on several occasions (e.g., September 14, 2001, November 29, 2002, February 14, 2003) regarding your concerns about the design and leakage

of relief valves. To summarize, the NRC staff considers some leakage to be acceptable without affecting plant operation or safety, and, in fact, all safety/relief valves (S/RVs) may leak without necessarily rendering them mechanically inoperable and incapable of performing their safety functions in the event of a reactor overpressurization event. As long as Technical Specifications are satisfied regarding reactor coolant system operational leakage, no NRC enforcement-related action is warranted. The staff further considers that NRC requirements are being met to ensure S/RVs are monitored and maintained in a condition that ensures they will perform their safety functions. The staff continues to monitor the S/RV leakage problems, but neither the NRC staff's evaluation, nor industry operational data, indicates that the currently installed S/RVs pose a risk-significant safety concern. Therefore, we did not substantiate your concern. S/RVs are designed and tested in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code). Code requirements are developed based on a consensus of industry practice. You may pursue technical questions on Code requirements with the ASME Code Committee.

Concern 8: The staff finds your concern to be general and that you did not provide specific details in support of the issue. However, additional effort required of operators to compensate for leaking relief valves would be considered an operator workaround. The impact of operator workarounds on human performance during event response is routinely evaluated as part of Attachment 16, "Operator Workarounds," of NRC Inspection Procedure 71111, "Reactor Safety - Initiating Events, Mitigating Systems, Barrier Integrity." Licensees are expected to identify operator workaround problems at an appropriate threshold and enter them into the corrective action program. A licensee's effectiveness at identifying and implementing appropriate corrective action is evaluated using, in part, NRC Inspection Procedure 71152, "Identification and Resolution of Problems," and the guidance of Inspection Manual Chapter 2515, Appendix A, "Risk-Informed Baseline Inspection Program." Therefore, we did not substantiate your concern.

For the reasons stated herein, we do not plan to take any further action on your concerns. Thank you for your interest in and concerns about this matter. The NRC takes its responsibility for protecting the public health and safety seriously. The staff continues to vigilantly monitor and regulate Quad Cities as well as all other nuclear power reactors to ensure they operate in a manner that adequately protects public health and safety and the environment.

Sincerely,

/RA/

Anthony J. Mendiola, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-254 and 50-265

Enclosure: As stated

cc w/o encl: See next page

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Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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Incoming: ML031390145 (e-mail dtd. May 15, 2003)

ADAMS Accession No.: ml031400708 Package: ML031620349 *See previous concurrences

OFFICE	PDIII-2/PM	PDIII-2/LA	TECH ED	PDIII-2/SC	PDIII/D
NAME	FLyon	PCoates	PKleene*	AMendiola	WRuland*
DATE	6/4/03	6/4/03	5/21/03	6/5 /03	6/2/03

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DISTRIBUTION FOR Y020030081 - Quad Cities SRV Exigent License Amendment Change

DATED: June 5, 2003

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