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RS-03-165

August 8, 2003

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

Dresden Nuclear Power Station, Units 2 and 3  
Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

**Subject:** Additional Information Supporting the Request for Technical Specifications  
Surveillance Requirement 3.6.1.3.8 Change Related to Excess Flow Check Valve  
Testing

**Reference:** Letter from K. R. Jury (Exelon Generation Company, LLC) to U. S. Nuclear  
Regulatory Commission, "Request for Technical Specifications Surveillance  
Requirement 3.6.1.3.8 Change Related to Excess Flow Check Valve Testing,"  
dated February 14, 2002

In the referenced letter, Exelon Generation Company, LLC (EGC) requested an amendment to the facility operating licenses for Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2. The proposed change revises Technical Specification (TS) Section 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," Surveillance Requirement (SR) 3.6.1.3.8 to require that a representative sample of reactor instrumentation line excess flow check valves (EFCVs) be tested every 24 months, such that each EFCV will be tested nominally at least once every 10 years.

On June 30, 2003, the NRC requested additional information related to the performance criteria for the EFCVs to be established when adopting the extended surveillance intervals. The Attachment provides the requested information.

EGC has reviewed the information supporting a finding of no significant hazards consideration that was previously provided to the NRC in Attachment D of the referenced letter. The

ADD1

supplemental information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration.

If you have any questions or require additional information, please contact Mr. Kenneth M. Nicely at (630) 657-2803.

I declare under penalty of perjury that the foregoing is true and correct.

Respectfully,

August 8, 2003  
Executed on

Patrick R Simpson  
Patrick R. Simpson  
Manager – Licensing  
Mid-West Regional Operating Group

Attachment:

Response to Request for Additional Information

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - Dresden Nuclear Power Station  
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station  
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety

**ATTACHMENT**  
**Response to Request for Additional Information**

**NRC Request**

The safety evaluation for topical report B21-00658-01, the lead plant SER (Duane Arnold) and TSTF-334, indicate that a licensee is to establish performance criteria for the excess flow check valves (EFCVs) when adopting EFCV extended surveillance intervals. Performance criteria established for the EFCVs of the lead plant were stated as, "Less than or equal to one EFCV failure per year on a 3-year rolling average."

The proposed surveillance testing methodology for Dresden and Quad Cities includes a provision that increases the number of EFCVs tested based on the number of EFCV test failures experienced during EFCV surveillance. This methodology is similar to other plant EFCV surveillance submittal requests. However, the Dresden and Quad Cities submittal does not provide performance criteria for the EFCVs similar to that included for these plants or the topical report lead plant. Provide a discussion why performance criteria are not required for the EFCV surveillance extension proposed for Dresden and Quad Cities (whose performance is not consistent with the topical report results).

**Response**

Reference 1 states that licensees must develop EFCV performance criteria and basis to ensure that their corrective action program can provide meaningful feedback for appropriate corrective actions. The NRC safety evaluation for Duane Arnold (i.e., Reference 2) states "adherence to the 10 CFR 50.65 Maintenance Rule Performance Criteria would ensure that EFCV performance remains consistent with the extended test interval and that the new performance criterion is less than or equal to one failure per year on a 3-year rolling average." The NRC concluded that this method to account for a potential change in EFCV failure rate to be acceptable. In addition, the NRC considered Duane Arnold's commitment to document and trend EFCV failure rates to determine if the frequency of surveillance tests needs to be increased to be both prudent and necessary.

The proposed surveillance testing methodology for Dresden Nuclear Power Station (DNPS) and Quad Cities Nuclear Power Station (QCNPS) does not provide a specific performance criterion because the proposed methodology is conservative, compared to other plants that established specific performance criteria, since every EFCV failure will be evaluated under both the Corrective Action Program and Condition Monitoring Program, regardless of the number of failures. The proposed testing methodology for DNPS and QCNPS accounts for potential changes in the EFCV failure rate, ensures that failures are documented and trended, and requires a periodic re-evaluation of the adequacy of the surveillance testing frequency. This ensures that the corrective action program can provide meaningful feedback for appropriate corrective actions to respond to failure trends

As described in Reference 3, any EFCV failures that may occur will be documented in the Corrective Action Program as a surveillance test failure. This ensures that appropriate corrective actions are developed and implemented, and ensures that failures are documented and trended.

The Condition Monitoring Program requires an evaluation to identify common failure mode, industry experience, and to review for similar component failure history. Further, as described

**ATTACHMENT**  
**Response to Request for Additional Information**

in Reference 3, the EFCV failure rate will be re-evaluated every two years, in accordance with the Condition Monitoring Program, to ensure that the test frequency is appropriate. This includes a review to ensure that potential changes in EFCV failure rate are evaluated to determine if the test frequency should be increased, regardless of the number of failures. The two-year re-evaluation will include a review of test history, effectiveness of corrective actions, and consideration of appropriateness of current test frequencies, as described above.

Therefore, a specific performance criterion is not needed since the proposed testing methodology will ensure that the corrective action program can provide meaningful feedback for appropriate corrective actions to respond to failure trends.

**References**

1. Standard Technical Specification Change Traveler TSTF-334, "Relaxed Surveillance Frequency for Excess Flow Check Valve Testing," Revision 2
2. Letter from B. L. Mozafari (NRC) to E. Protsch (IES Utilities Inc.), "Duane Arnold Energy Center – Issuance of Amendment Re: Revised Excess Flow Check Valve Surveillance Requirements (TAC No. MA5545)," dated December 29, 1999
3. Letter from K. R. Jury (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Request for Technical Specifications Surveillance Requirement 3.6.1.3.8 Change Related to Excess Flow Check Valve Testing," dated February 14, 2002