

RS-06-153

October 5, 2006

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

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

Subject: Additional Information Supporting Request for License Amendment to Increase Main Steam Safety Valve Lift Setpoint Tolerance and Standby Liquid Control System Enrichment

- References:
1. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U. S. NRC, "Request for License Amendment to Increase Main Steam Safety Valve Lift Setpoint Tolerance and Standby Liquid Control System Enrichment," dated June 2, 2006
 2. Letter from J. Honcharik (U. S. NRC) to C. M. Crane (Exelon Generation Company, LLC), "Dresden Nuclear Power Station, Units 2 and 3 – Request for Additional Information Related to Standby Liquid Control System (TAC Nos. MD2166 and MD2167)," dated October 3, 2006

In Reference 1, Exelon Generation Company, LLC (EGC) requested an amendment to Renewed Facility Operating License Nos. DPR-19 and DPR-25 for Dresden Nuclear Power Station (DNPS) Units 2 and 3. The proposed change revises Technical Specification (TS) Surveillance Requirements 3.4.3.1 to increase the allowable as-found main steam safety valve (MSSV) lift setpoint tolerance from $\pm 1\%$ to $\pm 3\%$. In addition, the proposed change revises SR 3.1.7.10 to increase the enrichment of sodium pentaborate used in the Standby Liquid Control System from ≥ 30.0 atom percent boron-10 to ≥ 45.0 atom percent boron-10.

In Reference 2, the NRC requested additional information to complete its review. In response to Reference 2, EGC is providing the attached information.

Additionally, a typographical error has been identified in the information provided in Reference 1. On Page 5 of Attachment 1, the third sentence in the first paragraph under "S/RV Dynamic Loads" should state "The setpoint upper bound resulted in a 1.66% increase in

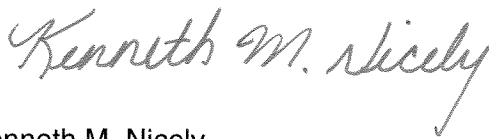
pressure and a 2.1% increase in flow over the existing analysis." Specifically, "2.2%" should be "2.1%." This change does not alter the conclusions in Reference 1 related to safety relief valve (S/RV) dynamic loads.

EGC has reviewed the information supporting a finding of no significant hazards consideration that was previously provided to the NRC in Attachment 1 of Reference 1. The information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration.

Regulatory commitments made in this letter are listed in Attachment 2. Should you have any questions concerning this letter, please contact Michelle Yun at (630) 657-2818.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 5th day of October 2006.

Respectfully,

A handwritten signature in cursive script that reads "Kenneth M. Nicely".

Kenneth M. Nicely
Manager – Licensing

Attachments:

- Attachment 1: Response to Request for Additional Information
- Attachment 2: List of Regulatory Commitments

Attachment 1
Response to Request for Additional Information

NRC Request 1

As discussed during teleconferences between the NRC staff and Exelon, the NRC staff requests that Exelon submit a commitment to perform a one-time pump test, prior to implementing this amendment, with the flow recorded at a sufficiently high pressure and flow rate to demonstrate, after density correction, that the design-basis requirements of the SLCS pumps have been met. In addition, provide the pressure and flow rate that will be used for this one-time pump test.

Response

Prior to implementing the license amendment to increase the enrichment of sodium pentaborate used in the Standby Liquid Control (SLC) system, Exelon Generation Company, LLC (EGC) will perform a one-time test of the SLC pumps at a sufficiently high pressure to verify that the SLC pumps meet the design basis flow requirement. The acceptance criteria for the test will include appropriate density correction considerations. For the test performed during the next Unit 2 refueling outage, the pressure will be set at 1385 psig to meet the flow requirement of 40 gpm. For the test performed during the next Unit 3 refueling outage, the pressure will be set at 1425 psig to meet the flow requirement of 40 gpm.

NRC Request 2

On August 31, 2006, during a telephone conference call between Exelon and the NRC staff, Exelon discussed its testing program for the SLCS pumps that follow the requirements of the American Society of Mechanical Engineers Operation and Maintenance Code (ASME OM Code). Regarding the acceptance criteria for inservice testing, confirm that the testing and test acceptance criteria used in the ASME OM Code testing of the SLCS pumps, as required by Title 10 of the *Code of Federal Regulations* Section 50.55a, demonstrate that the SLCS pumps are operationally ready and capable of performing their intended function(s).

Response

During a conference call on September 25, 2006, the NRC clarified NRC Request 2. Specifically, the NRC is questioning how future degradation of the SLC pumps will be factored into the results of the one-time test described above, since the ASME OM Code, permits the SLC pumps to degrade as much as 10% during the quarterly testing, and still meet the ASME OM Code acceptance criteria.

As described in EGC procedures that implement the ASME OM Code, two acceptance criteria must be satisfied when testing the SLC pumps. First, the flow must be within 10% of the reference value established during the pre-service or first inservice test. Second, the flow must be greater than or equal to 40 gpm, as required by Technical Specification (TS) Surveillance Requirement (SR) 3.1.7.7.

10 CFR 50.62, "Requirements for reduction of risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants," requires the SLC system to have the capability of injecting a borated water solution, in which the resulting reactivity control is at

Attachment 1
Response to Request for Additional Information

least equivalent to that resulting from injection of 86 gpm of 13-weight percent sodium pentaborate decahydrate solution at the natural boron-10 isotope abundance into a 251-inch inside diameter reactor pressure vessel for a given core design.

Under the proposed change, EGC is requesting NRC approval to increase the enrichment of sodium pentaborate used in the SLC system to ≥ 45.0 atom percent boron-10. EGC has evaluated the equivalent SLC system flow requirement, as required by 10 CFR 50.62, using the methodology described in NEDE-31096-P-A (i.e., Reference 1), which was approved by the NRC in Reference 2. Using 14-weight percent sodium pentaborate (i.e., the minimum concentration allowed by TS 3.1.7), and a boron-10 enrichment of 45 atom percent, the equivalent SLC system flow was determined to be 35.2 gpm.

Therefore, based on the above, continued use of the 40 gpm acceptance criterion defined by SR 3.1.7.7 for the quarterly ASME OM Code testing will ensure that the SLC pump is operationally ready and capable of performing its intended function, even if the SLC pump is in a 10% degraded condition.

References

1. NEDE-31096-P-A, "Anticipated Transients Without Scram; Response to NRC ATWS Rule, 10 CFR 50.62," dated February 1987
2. Letter from G. Lainas (U. S. NRC) to T. A. Pickens (BWR Owners' Group), "Acceptance for Referencing of Licensing Topical Report NEDE-31096-P, 'Anticipated Transients Without Scram; Response to NRC ATWS Rule, 10 CFR 50.62'," dated October 21, 1986

Attachment 2
List of Regulatory Commitments

The following table identifies those actions committed to by Exelon Generation Company, LLC (EGC) in this document. Any other statements in the submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	COMMITTED DATE	COMMITMENT TYPE	
		ONE-TIME ACTION (YES/NO)	PROGRAMMATIC (YES/NO)
EGC will perform a one-time Standby Liquid Control (SLC) system pump test at a sufficiently high pressure to verify that each SLC pump meets the design basis flow requirement	Prior to amendment implementation to increase sodium pentaborate enrichment	Yes	No