



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

November 6, 2015

EA-15-064

J. Bradley Fewell  
Senior Vice President Regulatory Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: RESPONSE TO CONCERNS REGARDING POTENTIAL INAPPROPRIATE  
APPLICATION OF THE SIGNIFICANCE DETERMINATION PROCESS AT  
CLINTON POWER STATION**

Dear Mr. Fewell:

On September 30, 2015, the NRC received a letter from Exelon Generation Company (EGC) regarding the potential inappropriate application of the Significance Determination Process (SDP) during our evaluation of the Division 3 Shutdown Service Water (SX) Pump failure at Clinton Power Station. Specifically, you were concerned over the reasonableness of holding a licensee accountable when a Title 10 of the *Code of Federal Regulations* (10 CFR) 50, Appendix B, qualified vendor supplied parts that subsequently failed through no fault of the licensee.

Based upon information provided during a regulatory conference held on June 25, 2015, and in your written response to regulatory conference questions dated July 6, 2015, the U.S. Nuclear Regulatory Commission (NRC) determined that EGC was unable to successfully demonstrate that the Division 3 SX pump's shaft sleeve degradation was caused by vendor error. This determination was based upon information provided by the pump vendor which refuted EGC's assertion that the pump failed due to misapplied shaft sleeve hard-face material. The NRC staff also questioned the validity and applicability of EGC sponsored third party reviews of the pump's performance after the NRC learned that the evaluated configuration was not reflective of the actual plant configuration and that assumptions made during computer modeling evaluations were not reviewed for appropriateness.

The NRC concluded that the issuance of a White finding associated with the Division 3 SX pump failure was a reasonable and appropriate application of the SDP due to EGC's failure to meet 10 CFR 50, Appendix B, Criterion III, following a re-design of the Division 3 SX pump following a 1995 failure. Specifically, EGC failed to verify the suitability of the design for the Division 3 SX pump to ensure the modified pump internals would not degrade under the expected operating conditions. The NRC's conclusion was based on design change information

which specified the need for bronze bushings and an over laid shaft sleeve as part of the Division 3 SX pump internals. The NRC also noted that the revised Division 3 SX pump design was to be similar to the Division 1 and 2 SX pump design, however, no analyses were performed to evaluate the design differences between the pumps and whether those differences had the potential to adversely affect the Division 3 SX pump's performance as part of the design change process. From your September 30, 2015 letter, the NRC understands that EGC believes our conclusions were based upon a totality of the circumstances present in this matter rather than establishing a requirement for licensees to specify high levels of design detail within procurement documents. Regardless, EGC needs to include the appropriate level of technical specificity to assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitably included or referenced in the documents for procurement of material, equipment, and services, whether purchased by EGC or by its contractors.

If you have any additional questions or concerns regarding this matter, please contact Ms. Karla Stoedter of my staff at 630-829-9731.

Sincerely,

*/RA/*

Cynthia D. Pederson  
Regional Administrator

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