

OFFICE OF ENFORCEMENT
NOTIFICATION OF SIGNIFICANT ENFORCEMENT ACTION

Licensee: Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
Docket Nos. 50-255

EA-11-241

Subject: ISSUANCE OF FINAL SIGNIFICANCE DETERMINATION AND NOTICE OF VIOLATION

This is to inform the Commission that a Notice of Violation will be issued on or about February 14, 2012, to Entergy Nuclear Operations, Inc. (licensee) for two violations associated with a White Significance Determination Process finding identified during an inspection of the Palisades Nuclear Plant. This White finding, an issue of low to moderate safety significance, will require additional U.S. Nuclear Regulatory Commission (NRC) inspections. It involves the failure of Palisades' personnel to verify the adequacy of the safety-related service water pump coupling design. Specifically, Palisades modified the design of the P-7C couplings to change the material from carbon steel to 416 stainless steel but failed to verify that the material was adequate for the environment and working conditions for which it would be subjected. Palisades failed to identify and evaluate a new failure mechanism which was introduced into the system in the form of intergranular stress corrosion cracking (IGSCC). As a result, on August 9, 2011, IGSCC caused the failure of coupling #6 on the safety-related service water pump (P-7C) rendering it inoperable. In addition, Palisades failed to preclude repetition of a significant condition adverse to quality. Specifically, on September 29, 2009, coupling #7 of safety-related service water pump (P-7C) failed due to IGSCC. This was a significant condition adverse to quality. As such, Palisades' action to prevent recurrence did not consider all critical factors to prevent IGSCC from recurring on August 9, 2011.

The Notice of Violation is based on the licensee's failure to meet 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which requires, in part, that design control measures provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. In addition it is based on the licensee's failure to meet 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," which requires, in part, that in the case of significant conditions adverse to quality, measures shall assure that the cause of the condition is determined and corrective actions taken to preclude repetition.

In response to the preliminary determination letter, the licensee attended a Regulatory Conference and provided additional information on their assessment of the significance of this finding. After reviewing the information developed during the inspection and the information provided by the licensee, the staff concluded that the inspection finding is appropriately characterized as White. Entergy has informed the NRC that multiple corrective actions are in place and/or planned. Their corrective actions include, in part: (1) replacing all safety-related service water pump couplings with ASTM A565 type 630 SS Condition H1150 material; (2) performing hardness and toughness testing on all couplings; (3) performing effectiveness reviews on all couplings by removal and inspection; and, (4) changes to the various organizational and programmatic processes including engineering change development, modifications, and corrective action.

It should be noted that the licensee has not been specifically informed of the enforcement action.
The schedule of issuance and notification is:

Mailing of Final Significance Determination	February 14, 2012
Telephone Notification of Licensee	February 14, 2012

The State of Michigan will be notified.

Contacts: Ryan Eul, OE, (301) 415-8743 Dave Furst, OE, (301) 415-7634

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