

January 14, 2010
EN 10-005

OFFICE OF ENFORCEMENT
NOTIFICATION OF SIGNIFICANT ENFORCEMENT ACTION

Licensee: Entergy Nuclear Operations, Inc. EA-09-269
Palisades Nuclear Plant
Docket No. 50-255

Subject: ISSUANCE OF FINAL SIGNIFICANCE DETERMINATION AND NOTICE
OF VIOLATION

This is to inform the Commission that a White Significance Determination Process (SDP) finding will be issued on or about January 20, 2010, to Entergy Nuclear Operations, Inc. as a result of inspections at the Palisades Nuclear Plant. This White finding, an issue with low to moderate safety significance, which may require additional NRC inspections, involved the licensee's failure to meet the requirements of Technical Specification (TS) Section 4.3 for fuel storage in the spent fuel pool (SFP). Resident inspectors noted, during a review of condition reports, that the licensee identified two fuel bundles in the SFP could not be removed from their current location. The licensee evaluated the condition and concluded gas generated from irradiation caused fuel rack wall swelling. The licensee performed testing of the neutron absorption capability of the SFP racks and determined that the neutron absorber in the racks had deteriorated over the life of the plant and no longer met TS requirements for an effective neutron multiplication factor (K_{eff}) in region 1 of the SFP. Entergy Nuclear Operations, Inc. declined the opportunity to discuss this issue in a Regulatory Conference or to provide a written response. Corrective actions are currently in place for additional controls of the SFP.

A Notice of Violation (NOV) is included based on a violation of Technical Specification 4.3.1, Amendment 189, which requires, in part, that Region I fuel storage racks be designed and maintained with a $K_{eff} \leq 0.95$, if fully flooded with unborated water, which includes allowances for uncertainties as described in Section 9.11 of the Updated Final Safety Analysis Report. Contrary to this requirement, the licensee failed to maintain the Region I fuel storage racks with a $K_{eff} \leq 0.95$ when fully flooded with unborated water. Specifically, the Region I fuel storage racks contained fixed poison in the form of boron carbide (B_4C) plates that was less than required by TS to ensure the design feature was met. The B_4C neutron absorption capability degraded to the point that K_{eff} in Region I was greater than 0.95 under the bounding conditions described in Section 9.11 of the Updated Final Safety Analysis Report.

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	January 20, 2010
Telephone Notification of Licensee	January 20, 2010

The State of Michigan will be notified.

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