

**MRP** Materials Reliability Program \_\_\_\_\_ MRP 2011-036

January 9, 2012

Document Control Desk  
U. S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Attention: Sheldon Stuchell

Subject: **TRANSMITTAL: PWR REACTOR INTERNALS INSPECTION AND  
EVALUATION GUIDELINES (MRP-227-A)**

**REFERENCE: EPRI PROJECT NUMBER 0669**

1. *Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-Rev. 0)*. EPRI, Palo Alto, CA: 2008. 1016596.
2. U. S. Nuclear Regulatory Commission letter "Revision 1 to the Final Safety Evaluation of EPRI Report, Material Reliability Program Report 1016596 (MRP-227), Revision 0, *Pressurized Water Reactor (PWR) Internals Inspection and Evaluation Guidelines*, (TAC NO. ME0680)," dated December 16, 2011.

Enclosed is the EPRI Technical Report "Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A)." This non-proprietary report is forwarded for confirmatory review. MRP-227-A is a revision to the original version of the guidelines (MRP-227 Revision 0, Reference 1) that incorporates the Topical Report Conditions resulting from the U. S. Nuclear Regulatory Commission Safety Evaluation Review (Reference 2) and responses to associated Requests for Additional Information (see Appendix B of MRP-227-A).

This document contains *Mandatory* and *Needed* elements as defined in the Implementation Protocol of NEI 03-08 and is required for all operating commercial U.S. pressurized water reactors (PWRs). The *Mandatory* and *Needed* elements are described in more detail below.

The requirements contained in this document are applicable to Babcock & Wilcox (B&W), Combustion Engineering (CE), and Westinghouse Nuclear Steam Supply System (NSSS) PWR designs currently operating in the United States and apply to both the current license period as well as to plants that have been granted license extensions through the license renewal process. These guidelines do not reduce, alter or otherwise affect current American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code Section XI or plant-specific licensing in-service inspection requirements.

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MRP-227-A contains one *Mandatory* element described as follows:

- **Mandatory:** *Each commercial U.S. PWR unit shall develop and document a program for management of aging of reactor internal components within thirty-six months following issuance of MRP-227-Rev. 0 (that is, no later than December 31, 2011).*

MRP-227-A contains five *Needed* elements described as follows:

- **Needed:** *Each commercial U.S. PWR unit shall implement Tables 4-1 through 4-9 and Tables 5-1 through 5-3 of MRP-227-A for the applicable design within twenty-four months following issuance of MRP-227-A (that is, no later than January 3, 2014).*
- **Needed:** *Examinations specified in these guidelines shall be conducted in accordance with the Inspection Standard (MRP-228).*
- **Needed:** *Examination results that do not meet the examination acceptance criteria defined in Section 5 of MRP-227-A shall be recorded and entered in the plant corrective action program and dispositioned.*
- **Needed:** *Each commercial U.S. PWR unit shall provide a summary report of all inspections and monitoring, items requiring evaluation, and new repairs to the MRP Program Manager within 120 days of the completion of an outage during which PWR internals within the scope of MRP-227 are examined.*
- **Needed:** *If an engineering evaluation is used to disposition an examination result that does not meet the examination acceptance criteria in Section 5 of MRP-227-A, this engineering evaluation shall be conducted in accordance with a NRC-approved evaluation methodology.*

**The effective date of the requirements is January 3, 2012.**

If you have any questions on this transmittal or on MRP-227-A, please contact Rick Reid by phone at (704) 595-2770 or by e-mail at [rreid@epri.com](mailto:rreid@epri.com).

Sincerely,

Scot A. Greenlee

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