February 28, 2011

MEMORANDUM TO: Brian W. Sheron, Director
Office of Nuclear Regulatory Research

FROM: Michael J. Case, Director ***/RA/***
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: ADDENDUM TO NRC/EPRI MOU

The Office of Nuclear Regulatory Research's (RES's) Division of Engineering (DE) Component Integrity Branch (CIB) has been working with the Electric Power Research Institute (EPRI) NonDestructive Examination (NDE) Center on an addendum to the Nuclear Regulatory Commission (NRC)/EPRI Memorandum of Understanding (MOU) to allow and encourage cooperation in nuclear safety research related to NDE when that research provides benefits for both NRC and industry. In a significant number of instances, events at operating plants involving degradation of components raise questions with regard to the NDE techniques that were used and interpretation of the results and having an MOU in place facilitates the staff's sharing of data and development of cooperative research programs to resolve the issues.

The NRC and EPRI have successfully cooperated on many projects since the MOU was first signed. The following are examples that were conducted by my staff through the MOU addenda:

- The investigation of primary water stress corrosion cracking in the retired control rod drive mechanisms removed from the North Anna 2 reactor pressure vessel head.
- The removal of samples from the internals of three boiling water reactors (BWR) to analyze the samples for helium content to assess weldability issues relative to the repair of degraded BWR core internals.
- Weld residual stress validation program.

Cooperation on these projects provided significant benefits to each organization such as access to technical experts and to removed-from-service components and mockups. This cooperation on safety-related research resulted in substantial resource savings for both organizations demonstrating that cooperative yet independent research provides benefits to the industry and public.

CONTACT: Wallace Norris, RES/DE
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CIB staff met with staff from the EPRI NDE Center in January 2010 to discuss the research efforts underway and planned by both organizations and to determine if potential areas for mutual cooperation existed. EPRI staff were receptive and encouraged cooperation. The January information exchange revealed that EPRI and NRC are interested in many of the same issues and, in fact, have already initiated projects that could be duplicative in some respects. CIB and the NDE Center have subsequently met several times and have agreed to cooperate in five areas: visual testing (VT), the inspection of cast austenitic stainless steel, the use of UT in lieu of radiographic testing (RT) and digital radiography, root mean square error, and documentation of the basis for Section XI, Mandatory Appendix VIII.

CIB and the NDE Center continue to meet to discuss goals and objectives, and to assess other potential areas where cooperation may prove to be mutually beneficial. CIB has coordinated with staff from the RES, NRR, and NRO with regard to this addendum.

EPRI understands and agrees that this agreement is subject to the Atomic Energy Act Section 170A Conflicts of Interest provision as further implemented by NRC regulations. Accordingly, it is understood by the Parties that EPRI is a provider of research data and reports in accordance with the agreement and shall not provide advice, evaluations, or recommendations to the regulator NRC, in connection with cooperating and participating in the cooperative research project.

The enclosed “Memorandum of Understanding for Nondestructive Examination” is provided for your review and approval.

Enclosures:
As stated

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