



NDE Reliability Issues

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NRC Management Meeting – Materials

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NDE Reliability Issues

- Several NDE reliability questions over the past few years
 - Often ‘churn’ occurring between the initial detection of an indication and its final resolution
- Spring 2012 North Anna OE: non-conservative error
 - Five axial cracks missed by qualified UT
- Industry response
 - Executive oversight and technical working groups formed
 - Action plan developed, executing now

Industry response organization

- Executive oversight ad hoc group comprising:
 - NDE APC (Action Plan Committee)
 - PMMP EOC
 - BWRVIP EOC
- Technical working group NIFG (NDE Implementation Focus Group)
 - Led by Mark Huting, member of NDE APC, Chairman of NDE Integration Committee
 - Includes:
 - Senior members from NDE Integration and NDE committees of MRP and BWRVIP
 - Two members of Materials APC
 - INPO participation
- Close engagement with NRC

Immediate actions completed

- Extent of Condition survey prepared and sent out to stations
 - Purpose is to identify welds in the US fleet that should have their next examinations accelerated
 - Initial survey will identify specific welds for follow-up solicitation of more comprehensive information
 - Responses were due July 20; only a couple are outstanding
- NDE Alert letter prepared and sent
 - Delivered to all examiners currently qualified to ASME XI, Appendix VIII, Supplement 10 (DM welds)
 - Contains required reading on North Anna and other OE
 - Requires examiners to submit attestation of completion of the reading
 - Copies to vendor management, plant ISI management, MRP, BWRVIP
 - NRC and INPO copied

Action items

- 29 actions defined
 - 21 are currently active; others are pending completion of some of the 21
- Action categories
 - Appendix VIII and PDI aspects of the issue
 - Implementation of inspections in the field
 - Industry oversight of inspections
 - Examiner proficiency – training and maintenance
 - Fleet extent of condition

Actions status

- Production
 - None are late; due dates July 31 2012 through mid-2013
 - Timely completion will require high activity from utility members of NIFG
 - Momentum at present looks OK
- Delivery
 - Many will be delivered via revision to 1018181, DM UT guideline
 - Won't be ready for Fall 2012 outages
 - Schedule:
 - Early Sept 2012: Recommendations via letter to industry to support fall outages
 - Dec 2012: 1018181 Rev 1 draft for review
 - June 2013: 1018181 Rev 1 final

Actions status: upcoming meetings

- Four-day NIFG working meeting scheduled week of August 20
 - Objective is to complete many of the actions
 - Some may be completed ahead of schedule
 - Following week is NPC Week; will report accomplishments to NDE APC and to Materials APC
- Meeting with INPO management August 28

Summary

- Industry is following through with its commitment to take a broad look at the North Anna and other OE
 - Working to understand its full impact and determine the appropriate fleet corrective and enhancement actions
- Many parallel actions
 - Several should be technically completed during August working session
 - Many key actions will be completed and implemented to meet the executive commitment of months rather than years
 - Some longer term improvement items will also be pursued to completion
- Delivery of improvements
 - Many key improvements will be in Revision to EPRI guideline 1018181
 - Interim guidance will be delivered by letter in September 2012
 - Draft 1018181 completed in Dec 2012; Final should be issued June 2013
 - Other deliverables will be in the form of enhanced training programs, better inspection tools, and improved fleet communication of OE

Questions?