



Management of Materials Issues

August 4, 2003



Background

- Indian Point 2 - February 2000
 - Alloy 600 base metal - steam generator tube rupture
- VC Summer - October 2000
 - Alloy 82/182 weld - reactor vessel nozzle to hot leg coolant pipe
- Quad Cities 1 – January 2002
 - Jet pump holdown beam failure



Background

- Oconee 1, 2 & 3; ANO 1 November 2000 – March 2001
 - A600 base metal and A82/182 welds – through wall leaks in CRDM nozzles
- Davis-Besse - March 2002
 - A600 base metal and A82/182 welds – through wall leaks and boric acid corrosion
- South Texas Project – April 2003
 - Bottom mounted instrument nozzle leaks



Background

- Task Force on Materials & Materials Assessment Working Group 8/02
 - Self-Assessment
- NEI Executive Committee Resolution 11/02
- NSIAC 9/02, 2/03
- NSIAC SG 12/02, 4/03, 7/03



Scope

- PWR Primary System
- BWR Drywell
- Secondary Side Steam Generators
- Materials Issues Related to Nuclear Fuel
- EPRI Programs and NSSS Owners Groups



Self-Assessment

- EPRI Issue Programs
 - BWRVIP
 - MRP (responses from each ITG – 4)
 - RFP
 - SGMP
- Owners Group Programs
 - BWROG
 - B&WOG (OTSG, Chemistry, NDE and Materials)
 - CEOG (Chemistry, SG and Section XI)
 - WOG/CEOG Materials
- Other EPRI Programs
 - NDE Center
 - Water Chemistry Control
 - Corrosion Control
- Other
 - PDI



Self-Assessment

- Oversight & Coordination
- Culture Issues
- Commitment, Resolution and Implementation
- Personnel
- Communication
- Regulatory Interface



Self-Assessment

- Recommendations
 - Create executive-level and technical oversight groups
 - Establish policy on the management of materials issues
 - Use the NEI Initiative Process
 - Expand INPO's role
 - Enhance communications
 - Define regulatory interface



NEI 03-08 Guideline

- Establishes two standing committees
 - Executive Oversight
 - Technical Advisory
- Establishes policy
- Defines roles, responsibilities, and expectations
- Provides for an integrated approach



Industry Initiative

- The objective of this Initiative is to assure safe, reliable and efficient operation of U.S nuclear power plants in the management of materials issues.
- Each licensee will endorse, support and meet the intent of NEI 03-08, *Guideline for the Management of Materials Issues*. This initiative is effective January 2, 2004.



Industry Initiative

- The purpose of this Initiative is to:
 - Provide a consistent management process
 - Provide for prioritization of materials issues
 - Provide for proactive approaches
 - Provide for integrated and coordinated approaches to materials issues
 - Provide for oversight of implementation



Industry Initiative

- Actions required by this Initiative include:
 - Commitment of executive leadership and technical personnel
 - Commitment of funds for materials issues within the scope of this Initiative
 - Commitment to implement applicable guidance documents



Actions

- Unanimous approval by Chief Nuclear Officers – May 2003
- Develop and implement transition plan
 - Strategic Focus/Plan
 - Project Control
 - Resources
 - Implementation/Assessment
 - Regulatory Interface
 - Communication
- Implementation January 2004



BMI Status

- MRP letter recommends BMI bare metal visual (BMV) inspections
 - NEI distributed to NSIAC on June 27th
 - Obtained information on industry inspection activities
 - ◆ 22 plants have performed some degree of BMV exam recently – no indications of nozzle leakage
 - ◆ All plants will perform a BMV in the next two years

