

Standards Development for NDE

STATUS AND FUTURE of NDE in SECTION XI

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Session C3 - Research Activities Materials Degradation Panel

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EPRI NDE Center-Chairman Subgroup NDE

Recent Major Revisions

- Revisions to Appendix VIII, UT Performance Demonstration, due to rulemaking completed
 - Limitations and modifications of 10CFR50.55a incorporated
 - Cast stainless steel & corrosion resistant cladding in course of preparation
- Central certification of NDE personnel permitted
- RPV UT
 - Outer 85% inspected from 2 directions or radial direction
 - Inner 15% inspected from 4 directions

Recent Major Revisions

- Revisions to Appendix I due to rulemaking
 - Included/incorporated coverage requirements from 10CFR50.55a and expanded it to include overlays and nozzle inner radii
 - By request revised to allow use of Appendix VIII on all components

Recent Major Revisions

- VT-2 and VT-3 Personnel Certification
 - Limitations of 10CFR 50.55a incorporated
 - VT-2 plant personnel for hydrostatic & system leakage tests meet experience and training requirements
 - VT-3 plant personnel meet experience and training requirements & written tests

Recent Major Revisions

- NDE training
 - Annual UT training is 8 hours
 - Virtual training systems using data from cracks can be used
- Developed performance demonstration requirement guidelines
 - Incorporated by Section V, Appendix 14
 - Three levels of demonstration rigor

Future Directions for NDE

- Alloy 600/182
 - Participating in TG that recently produced Code cases N-729 (RPV head penetrations) & N-722 (Other penetrations)
 - Industry responding in short term
 - SC XI responding with long term requirements
 - NDE will likely depend on performance demonstrations
 - Coordinate efforts with other SC XI committees

Future Directions for NDE

NDE Workforce Shortage

- Requirements for **Performance Based** NDE personnel certification
 - Training-No minimum hours
 - Distance learning or computer based or classroom training
 - Pass test
 - Experience-No minimum hours
 - Examine flawed mockups
 - Perform examinations
 - Master method specific skills
 - Third party qualification (ASNT's Central Certification Program)
 - Recertification by annual hands-on training or practical examinations
- These draft requirements not approved and may change

Future Directions for NDE (cont'd)

- Considering demonstration requirements for remote visual examinations
- Considering demonstration requirements for combined ET and UT procedures
- Developing a UT in lieu of RT Code case
- Reviewing Sect. V revision of ET requirements

Future of NDE

- Questions?