

RG 1.20 Comprehensive Vibration Assessment Program for Reactor Internals during Preoperational and Initial Startup Testing



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Agenda

- Scope Expansion of RG 1.20
- Technical Issues
- Process Issues
- Recommendation for Resolution

Scope Expansion of RG 1.20

- RG 1.20 goes well beyond reactor internals
 - Steam generators (PWR)
 - Piping
 - Non-safety related components
- Uprates and replacements included in “new plants” update – all stakeholders were not involved

Technical Issues

- It is unnecessary to conduct testing for PWRs during power ascension and start-up testing as required by RG 1.20
 - Penetration used for instrumentation ONLY available at hot functional testing
 - Historically this testing is conducted during hot functional
 - It is safer to test without fuel and results can be achieved through hot functional
- Steam generators for new plants have not been designed for this instrumentation

Technical Issues - continued

- Analysis requirements for vibration are unclear in some cases - Page 9, item (2)
- Analysis of forcing functions for components that will be or have been tested is confusing and unnecessary
 - Recommends analysis for components that have not had flow and vibration problems, page 10 last paragraph

Process Issues

- BWR and PWR guidance is intermingled and confusing
- Hold points have been added with NRC approval required
 - NRC becomes critical path to start-up
 - The test is for verification
 - The NRC receives a copy of the report for review
- “Helpful” information is included in the guide
 - This information has no regulatory basis
 - This category creates confusion (e.g. if it’s in a RG it could be considered consistent with industry standards but it is not, etc.)

Process Issues

- Letter describing proposed RIS on this topic dated 7/18/07
 - Illustrates the RG is incomplete
 - Shows there is need for additional discussion on this topic
 - Indicates the issues are not related to reactor internals testing

Proposed Resolution

- Two Regulatory Guides are needed to eliminate confusion (BWR and PWR specific)
- RG 1.20, revision 3 should be withdrawn pending resolution of the concerns in the proposed RIS
 - Related SRPs also need to be corrected
- The issues identified in the proposed RIS should be pursued and industry participation is essential
- NRC should engage PWR and BWR reactor vendors and owner's groups

Proposed Resolution continued

- Any regulatory guidance developed as a result of the RIS should be handled using the standard process
 - Public comment
 - ACRS review
 - No RAIs on RIS information
- COLA and DC applicants will respond to any new guidance using a systematic approach
 - Modeled after response to 20.1406