Why Risk-Inform 50.46?

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Safety Intent for use of Risk-Informed Regulation

- ■ Improve plant safety through
  - ■ Optimization of safety systems settings and configuration
  - ■ Focus on more risk significant initiators

Large Break LOCA Risk Perspective

- Risk analyses indicate that large break LOCAs are not significant contributors to plant risk,

- Operating experience points to other initiators as more significant

- Current LB-LOCA design basis requirements result in:

  1) ECCS equipment requirements which are inconsistent with risk insights

  2) Unwarranted emphasis and resource expenditure on low risk contributors

Background on Rule Revision

- In August 2004 the staff published a "rule concept" to gather cost/benefit information from stakeholders

- All letters from industry groups commented that significant safety enhancements would be possible if 50.46 were risk-informed

- Plant specific analyses were needed to quantify benefits

Rule Concept

- Define a new maximum design basis accident (DBA) LOCA based upon likelihood of break

- Maintain current conservative requirements up to new maximum DBA LOCA

- For LOCAs larger than the DBA, require mitigation capability but with less stringent requirements

- Plant changes must be made using a risk-informed process

October 2004 ACRS Meeting

- Industry identified areas for potential safety enhancements

- Other presenters suggested that existing regulations are sufficient to achieve intended improvements and that safety may be degraded (margins eroded) by a risk-informed change

Today's Discussion Focus

- Would a risk-informed change lead to the intended safety improvement?

- Is a rule change even necessary to achieve the intended safety enhancement?

  - Can the intent be achieved using current regulations?

- How will a revised, risk-informed 10CFR50.46 ultimately be used by the industry?