NRC’s Overall Vision and Strategy for Non-Light-Water Reactors

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Outline

• Vision and Strategy
• Implementation Action Plans
• Executing the Vision
Vision and Strategy

NRC Vision and Strategy:
Safely Achieving Effective and Efficient
Non-Light Water Reactor
Mission Readiness

Technical Readiness  Regulatory Readiness

Communication

DRAFT
Implementation Action Plans

- The IAPs are planning tools that describe:
  - Work to be done to achieve non-LWR readiness
  - Resources needed to accomplish the work
  - How to prepare the workforce to do the work
- Timeframes
  - Near-term (0-5 years)
  - Mid-term (5-10 years)
  - Long-term (>10 years)
Implementation Action Plans

Non-LWR Vision and Strategy

Implementation Action Plan

Near-Term (0-5 years)
Mid-Term (5-10 years)
Long-Term (>10 years)

Strategy 1
Knowledge, Skills and Capacity

Strategy 2
Computer Codes

Strategy 3
Flexible Review Processes

Strategy 4
Industry Codes and Standards

Strategy 5
Technology-Inclusive Policy Issues

Strategy 6
Communication
Near-Term Implementation Action Plan

Six Strategies:

1. Acquire/develop sufficient knowledge, technical skills, and capacity to perform non-LWR regulatory reviews
2. Acquire/develop sufficient computer codes and tools to perform non-LWR regulatory reviews
3. Develop guidance for a flexible non-LWR regulatory review process within the bounds of existing regulations, including the use of conceptual design reviews and staged-review processes
Near-Term Implementation Action Plan

4. Facilitate industry codes and standards needed to support the non-LWR life cycle (including fuels and materials)

5. Identify and resolve technology-inclusive policy issues that impact the regulatory reviews, siting, permitting, and/or licensing of non-LWR nuclear power plants (NPPs)

6. Develop and implement a structured, integrated strategy to communicate with internal and external stakeholders having interests in non-LWR technologies
Ongoing Activities

- Regulatory Review Roadmap
- Licensing Basis Event Selection
- Advanced Reactor Design Criteria
- Security Design Considerations
- Prototype Guidance
- Consensus Standards Development
- Policy Issue Resolution
Pre-Application Activities

- Oklo, Inc.
- Terrestrial Energy
- Core Review Team Approach
- Additional pre-application reviews anticipated in the near-term
Summary

• Vision and Strategy sets high level goals and objectives to achieve readiness

• NRC is moving from planning to execution

• Significant work is ongoing to prepare for Non-LWRs