

**Nuclear Regulatory Commission
and
Department of Energy, Office of Nuclear Energy
Public Meeting**

**Resumption of Transient Testing
and
Advanced Post Irradiation Examination
Capabilities**

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Infrastructure Investments

- ◆ **Office of Nuclear Energy infrastructure investment strategy tiers from identified research needs**
 - Directly links to Office of Nuclear Energy Roadmap
- ◆ **Investments are identified and prioritized in infrastructure plans**
- ◆ **Focus is on supporting NE research and development needs in a cost effective and efficient manner**
 - Utilizing existing infrastructure to the extent practical across the DOE complex as well as U.S. universities, international partners, and industry

Resumption of Transient Testing

- ◆ **Transient testing capability is needed by to support Accident Tolerant Fuels program**
 - Prototype lead test assembly testing prior to insertion into a commercial reactor
 - Estimated need by 2018 to support 10-year program goal

- ◆ **DOE initiating activities to identify options to conduct transient testing**
 - Alternative study near completion
 - Facility and equipment studies underway based on identified alternatives
 - Draft Environmental Assessment expected in Summer 2013

Advanced Post-Irradiation Examination Capabilities

◆ Evaluating benefits and options to establish advanced post-irradiation examination capabilities

- Supports improved understanding of irradiated fuels and materials at the sub-atomic level, improving validation of predictive models
- Considers establishing safe, secure, reconfigurable footprint that meets environment utilizing next generation equipment

◆ NE is in the early phases of this effort

- Held domestic and international workshops in 2012 to validate and understand research needs
- Initiated technical and environmental option studies, scheduled for completion in late 2014