MOVING AT THE PACE OF CHANGE

ACHIEVING REGULATORY READINESS AS A MODERN, RISK-INFORMED REGULATOR

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NRC AT A GLANCE

The NRC licenses and regulates civilian use of radioactive materials to:

- Protect public **health** and **safety**
- Promote common **defense** and **security**
- Protect the **environment**

- 5-member Commission
- Headquarters (MD)
- 4 regional offices (PA, GA, IL, TX)
- Resident inspector offices
- Technical training center (TN)
- FY22 budget request
  - $887.7 M including 2,879 FTE

Nuclear Reactors in the USA

- 93 commercial nuclear power plants, which generate about 20% of our nation's electrical use
  - Average age is ~ 38 years old
  - Oldest operating plant
    - Nine Mile Point unit 1, NY (1969)
  - Newest operating plant
    - Watts Bar unit 2, TN (2016)
- Two AP1000 under construction at Vogtle 3 & 4, GA
- 31 research and test reactors

The NRC’s goal is to be a modern, risk-informed regulator

The NRC is strategically transforming and modernizing to prepare for safe deployment of

ADVANCED REACTORS

Stakeholder Engagement

Transforming Our Workforce

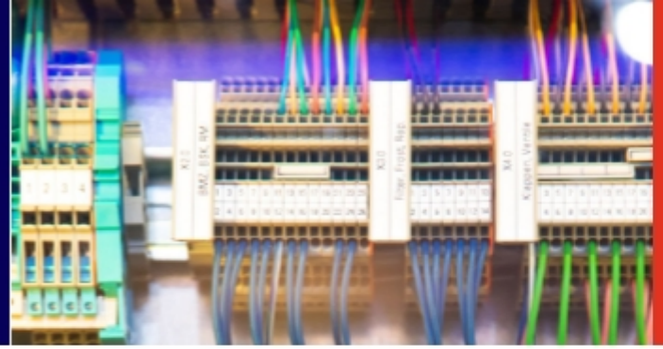
Strategic Policymaking

Modernizing Our Tools

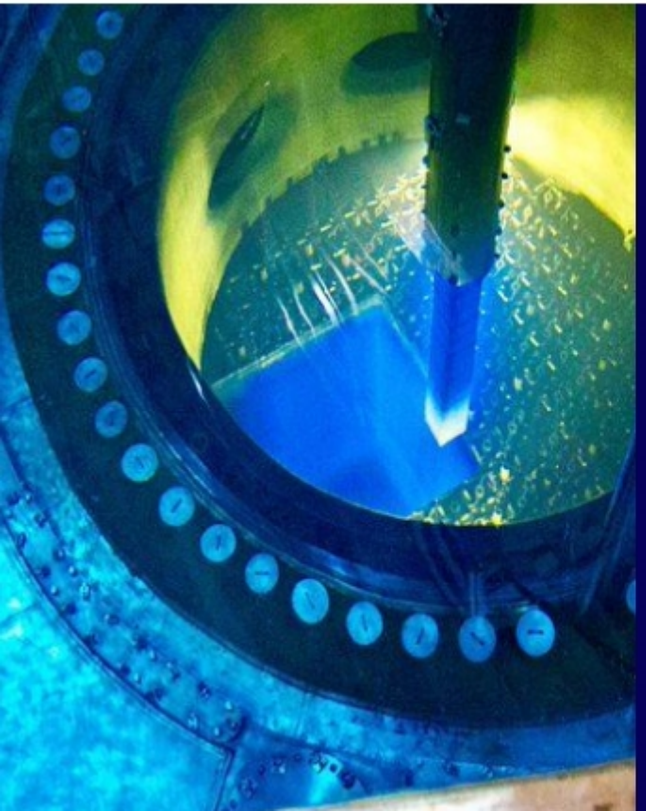
Supporting Innovation

Flexible Review Strategies

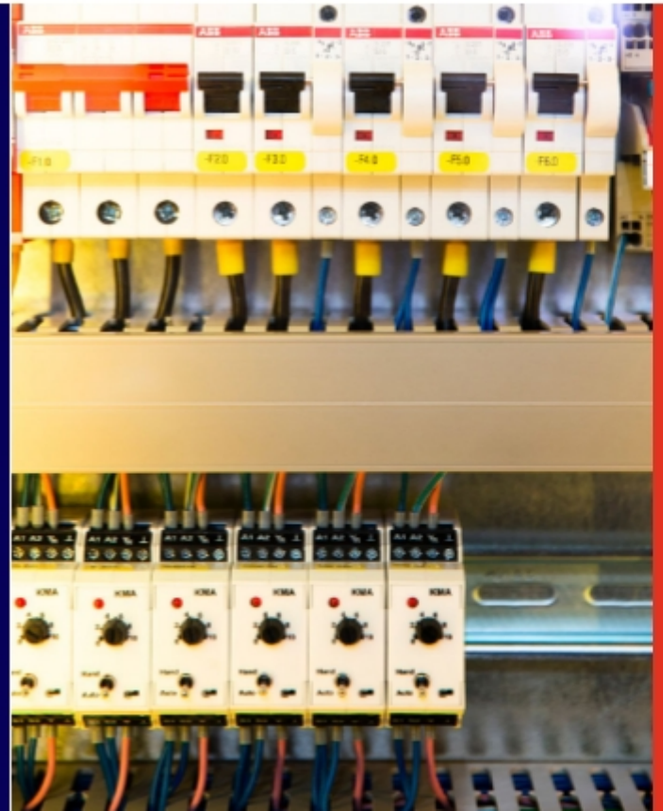
https://www.nrc.gov/reactors/new-reactors/advanced.html



MODERNIZING OUR REGULATORY INFRASTRUCTURE TO BETTER ENABLE NEW TECHNOLOGIES



ACCIDENT TOLERANT FUELS



DIGITAL INSTRUMENTATION AND CONTROLS

Data Science and Artificial Intelligence

The nuclear industry is investigating and using artificial intelligence applications

The NRC recognizes a need to use data analytics and artificial intelligence for regulatory decisionmaking

The NRC must be prepared to understand and evaluate these technologies

https://www.nrc.gov/public-involve/conference-symposia/data-science-ai-reg-workshops.html

Developing Our 21st Century Workforce

In executing our mission, our people remain our most important asset

Culture Initiatives

Diversity and Inclusion

Professional Development

Knowledge Management

Strengthening Readiness through Research

Reference Plant Models
Code Development
Technical Basis for Consensus Standards

Collaborating Internationally to Enhance Licensing the Reactors of the Future

US - Canada MOC
IAEA - SMR Regulators Forum
NEA - Working Group on the Safety of Advanced Reactors

Closing Remarks

- Continued safety and security in the nuclear industry is paramount
- Embrace new and innovative ways to better meet our mission
- Strong partnerships with domestic and international counterparts