US Nuclear Regulatory Commission

U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

NRC Mission

The NRC's mission is to regulate civilian uses of nuclear material

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

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Major Activities

- Licensing
- Oversight
- Research
- Rulemaking
- Incident Response

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Nuclear Materials

- Special Nuclear Material - Uranium-233 Or Uranium-235, Enriched Uranium, or Plutonium
- Source Material - Natural Uranium or Thorium or Depleted Uranium not Suitable for Use as Reactor Fuel
- Byproduct Material - nuclear material produced or made radioactive in a nuclear reactor or tailings and waste produced by extracting or concentrating uranium or thorium

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Nuclear Materials

Regulated Activities

- Medical, Industrial, and Academic Uses
- Source Material Facilities
- Uranium Recovery Facilities
- Fuel Cycle Facilities
- Materials Transportation

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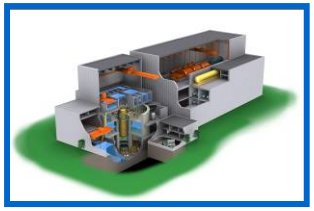
Reactors

Licensing New Reactors

Vogtle

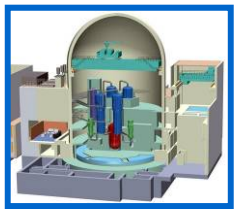
North Anna

ABWR



ESBWR

U.S. EPR



US-APWR

AP1000

The NRC is enabling a new generation of safe, secure nuclear reactors by reviewing applications for design certifications, early site permits, and combined licenses.

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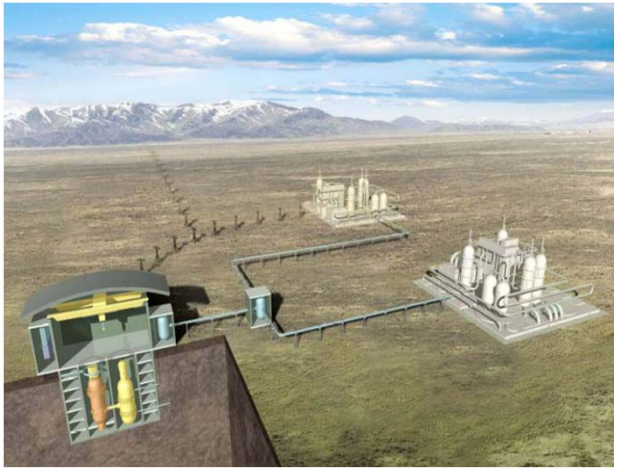
Reactors

Licensing Advanced Reactors

- Several technologies have emerged over the last decade that may be submitted to the NRC for licensing.

- The NRC's Advanced Reactor Program is in charge of licensing the next fleet of new and innovative reactor technologies.



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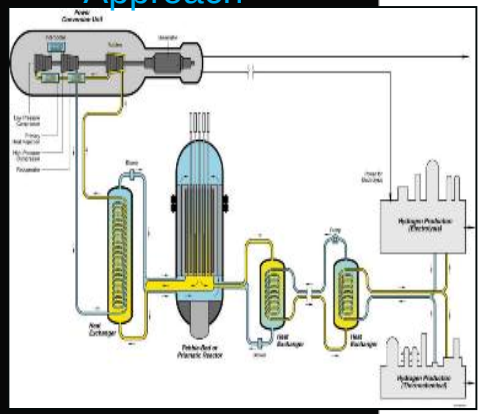
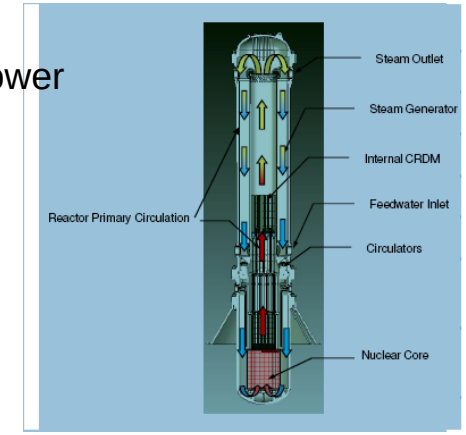
On the Horizon

Next Generation Nuclear Plant / Very High Temperature Gas Cooled Reactors

•NGNP Approach



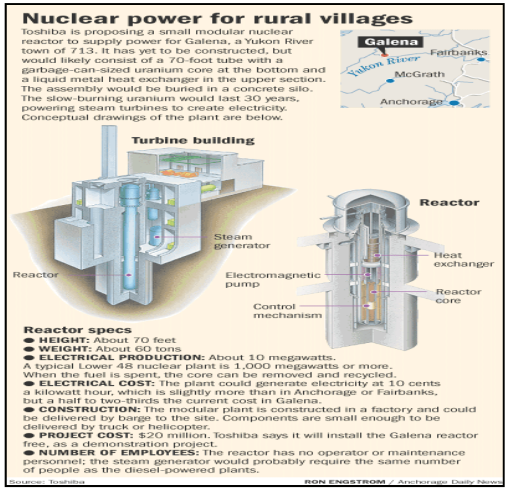
•mPower



Integral Pressurized Water Reactors

Advanced Reactor Program

Liquid Metal Reactors



•4S

•NuScale

Other Conceptual Innovative Designs

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Oversight

Inspecting Power Plants

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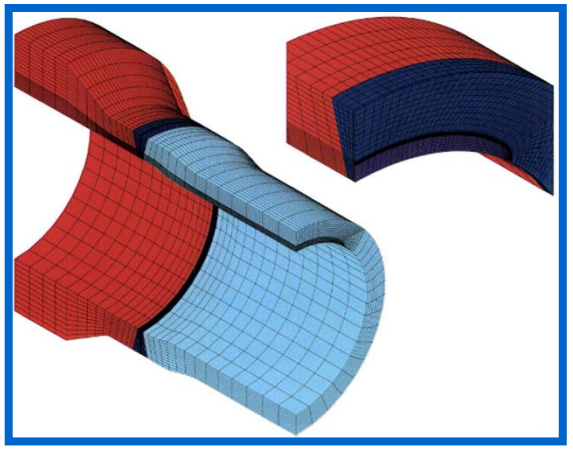
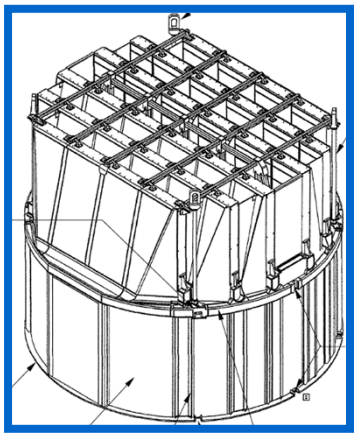
Researching New Issues

The NRC works with industry to identify safety issues early and resolve them quickly.



Materials Degradation Issues

Containment Sump Performance



Power Uprate Effects

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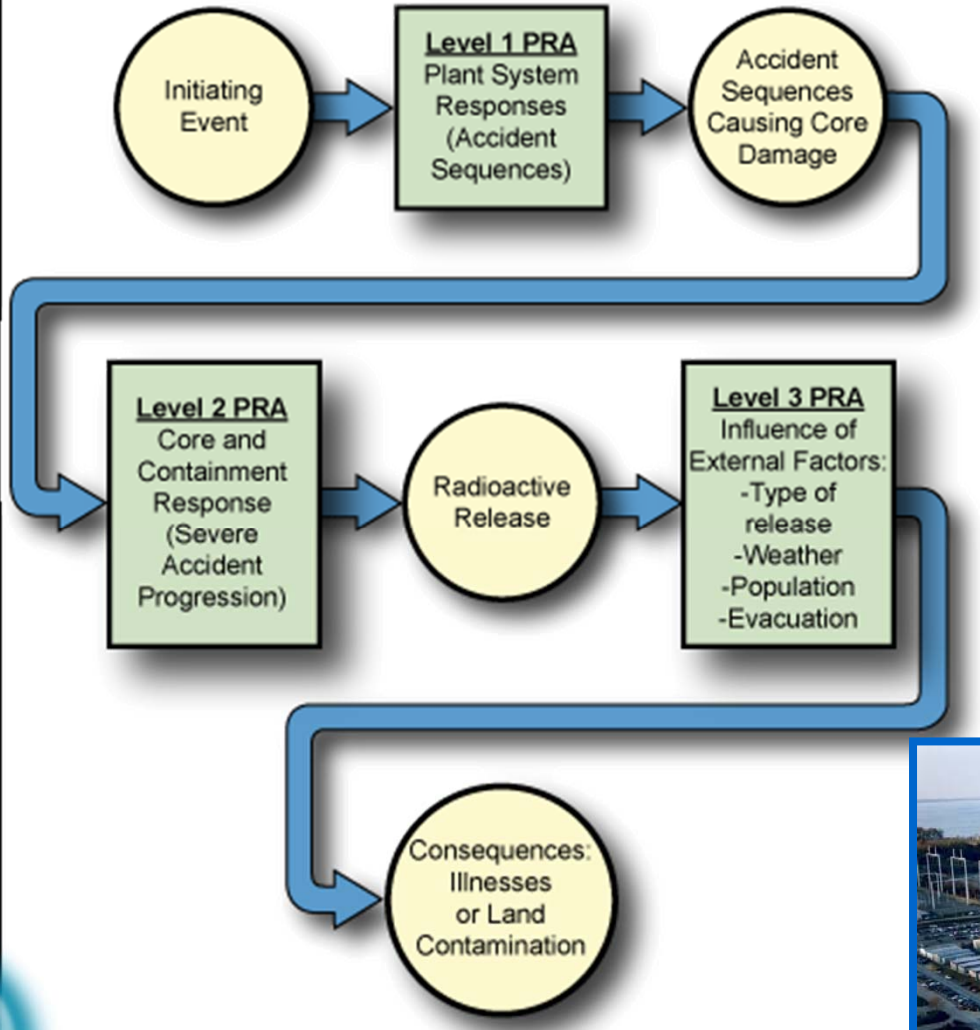
Risk Assessment



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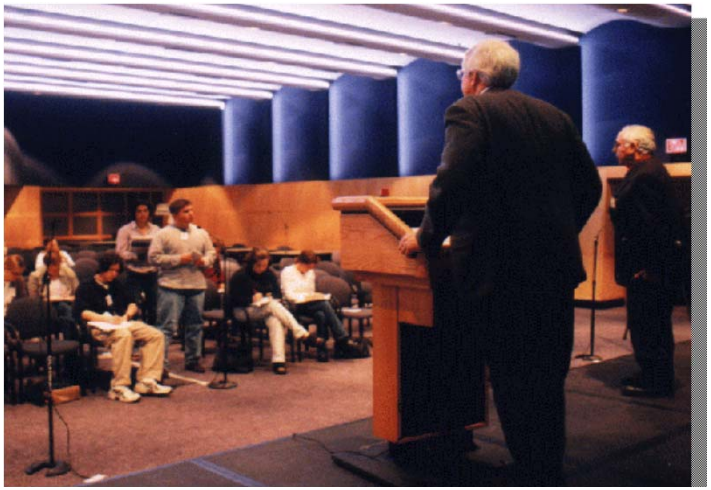
Emergency Response and the NRC

- Assess plant conditions
- Evaluate protective action recommendations
- Support off-site officials
- Keep other agencies informed
- Keep news media informed



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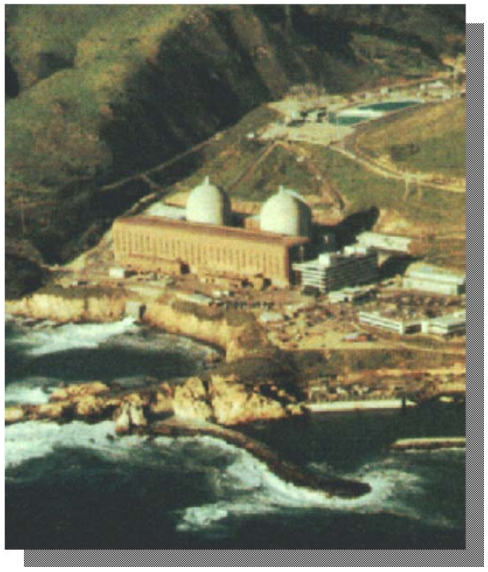
NRC's Response Organization

HQ Operations Officer (HOO)

Executive Team

HQ and Regional Assessment Teams

Site Team



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Coordination With Other Agencies

- Department of Homeland Security
- Department of Defense
- Federal Aviation Administration
- Department of Energy
- Environmental Protection Agency
- Department of Justice
- Federal Emergency Management Agency
- States
- Locals

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NRC Office Locations

Headquarters Office
Rockville, MD

Region I
King of Prussia, PA

Region II
Atlanta, GA

Region III
Lisle, IL

Region IV
Arlington, TX

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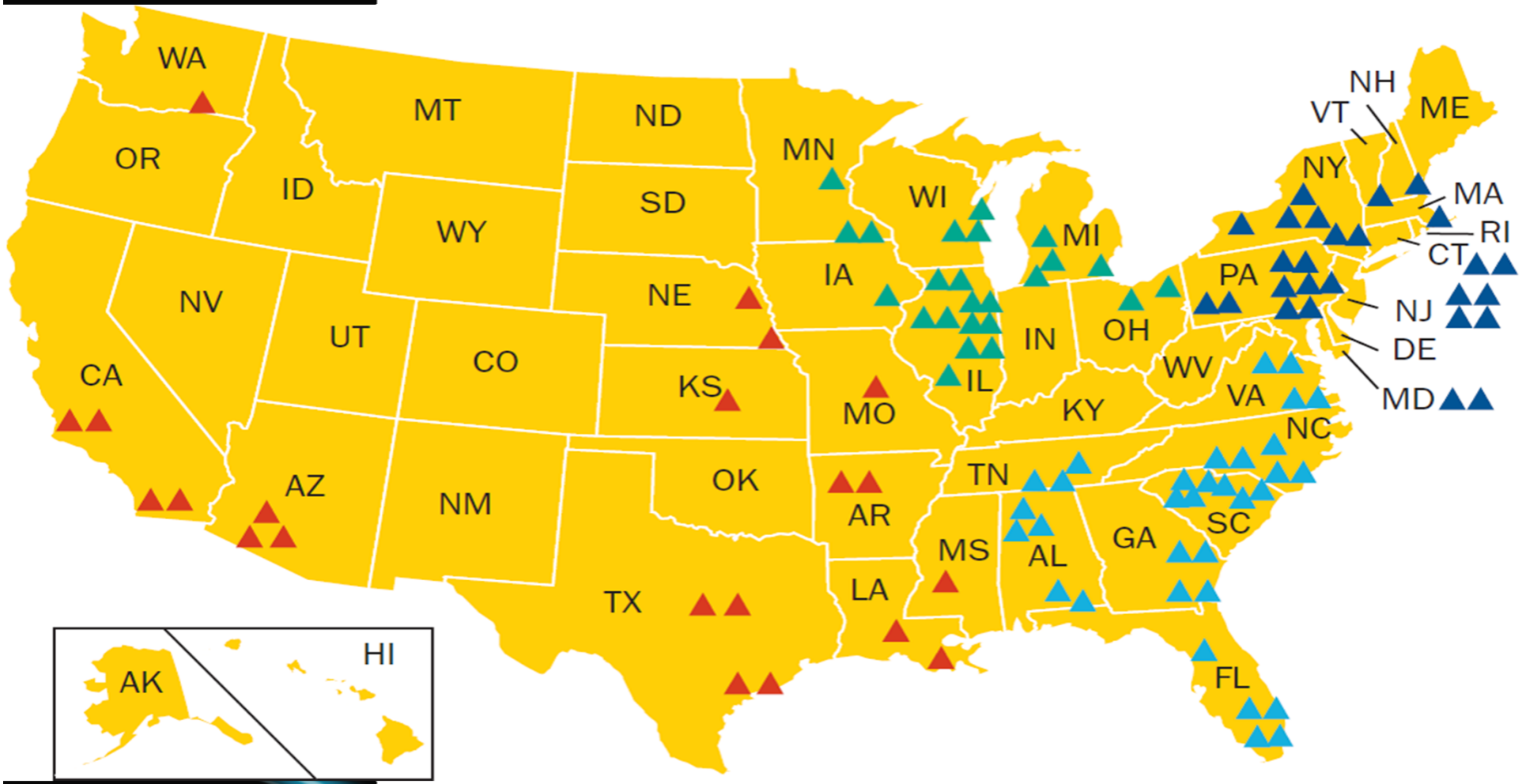
Licensing Power Plants



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