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

RIC 2012

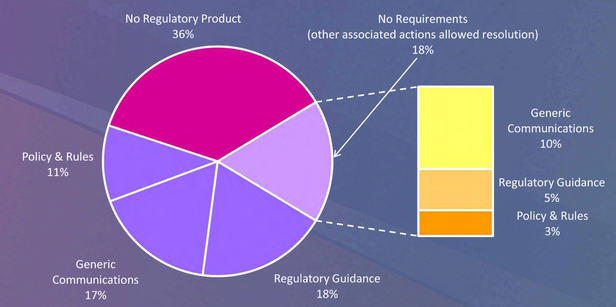
Office of Nuclear Regulatory Research

The Generic Issues Program is a congressionally mandated, agencywide program to address issues that have significant generic implications for safety or security that cannot be more appropriately addressed by other regulatory programs or processes

Generic Issue Criteria

- Affects public health and safety, security, or the environment (includes a risk threshold)
- Applies to two or more facilities
- Cannot be readily addressed through other regulatory processes or voluntary industry initiatives
- Can be resolved by new or revised regulation, policy, or guidance
- Permits adequate determination or estimation of risk or safety significance
- Concerns a well-defined and discrete issue
- May involve licensee review, analysis, or action

Resolution Products for Generic Issues* from FY 1983 to Present

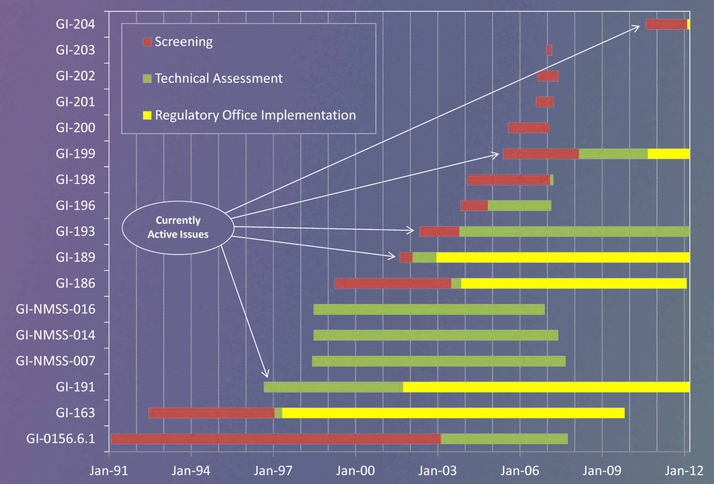


* Generic Issues defined per Management Dirictive 6.4 (November 2009)
Encompasses Generic Issues prioritized as Unresolved Safty Issues, High, Medium, and Nearly Resolved under legacy program

Active Generic Issues

- GI-189: Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion during a Severe Accident
- GI-191: Assessment of Debris Accumulation on Pressurized-Water Reactor (PWR) Sump Performance
- GI-193: Boiling-Water Reactor (BWR) Emergency Core Cooling System (ECCS) Suction Concerns
- GI-199: Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States for Existing Plants
- GI-204: Flooding of Nuclear Power Plant Sites Following Upstream Dam Failures

Generic Issues Active Since January 2006



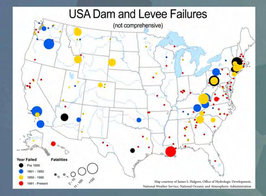
The Generic Issues Program consists of a five-stage process

Identification → **Acceptance** → **Screening** → Designation as a Generic Issue → **Safety/Risk Assessment** → **Regulatory Assessment**

- **Identification:** Anyone can propose a Generic Issue through the program Website, letter, or e-mail.
- **Acceptance:** Staff performs a limited assessment of the proposed Generic Issue against the seven criteria (above).
- **Screening:** A staff panel screens the proposed Generic Issue and recommends a course of action.
- **Safety/Risk Assessment:** Staff conducts a Generic Issue safety/risk assessment and a panel recommends a course of further action.
- **Regulatory Assessment:** Staff coordinates a regulatory assessment of the Generic Issue to determine actions for resolution.

Generic Issue: Flooding of Nuclear Power Plant Sites Following Upstream Dam Failure

– Risk assessment –

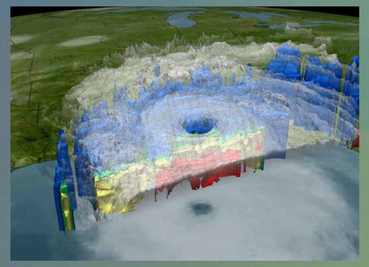


Dam Failure Frequency

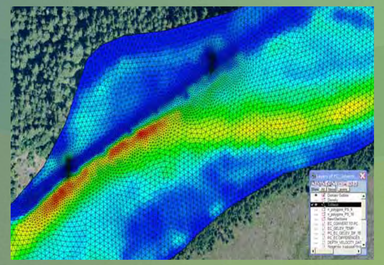
Flood Experience

Facility Impact Experience

– New data collection and estimation methods –

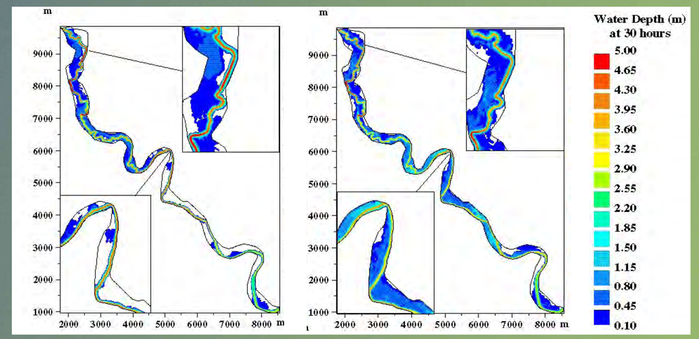


Several Decades of New Storm Data



High Resolution Hydrology Data and Modeling

– Advanced computing allows improved, higher resolution modeling –



Analysis Result Using Standard Topography

Result Using High-Resolution Topography Generated from an Airborne Lidar Survey

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