

Nuclear Innovation Alliance Part 53 Comments

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NRC Commissioner Briefing on Part 53 Rule Development

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NIA focuses on NRC licensing modernization activities to enable advanced nuclear energy as a climate solution

- Nuclear Innovation Alliance (NIA) is a leading think-and-do tank focused on achieving the conditions for success for advanced reactors so they can be part of the climate solution.
- Deeply engaged with the advanced reactor community as well as the broader energy and climate community.
- NIA's core strengths:

Analysis

Advocacy

Stakeholder
collaboration

Independent,
non-partisan

Strong track
record

Thought
leadership

NIA engages with other clean energy NGO stakeholders to inform comments and find common ground

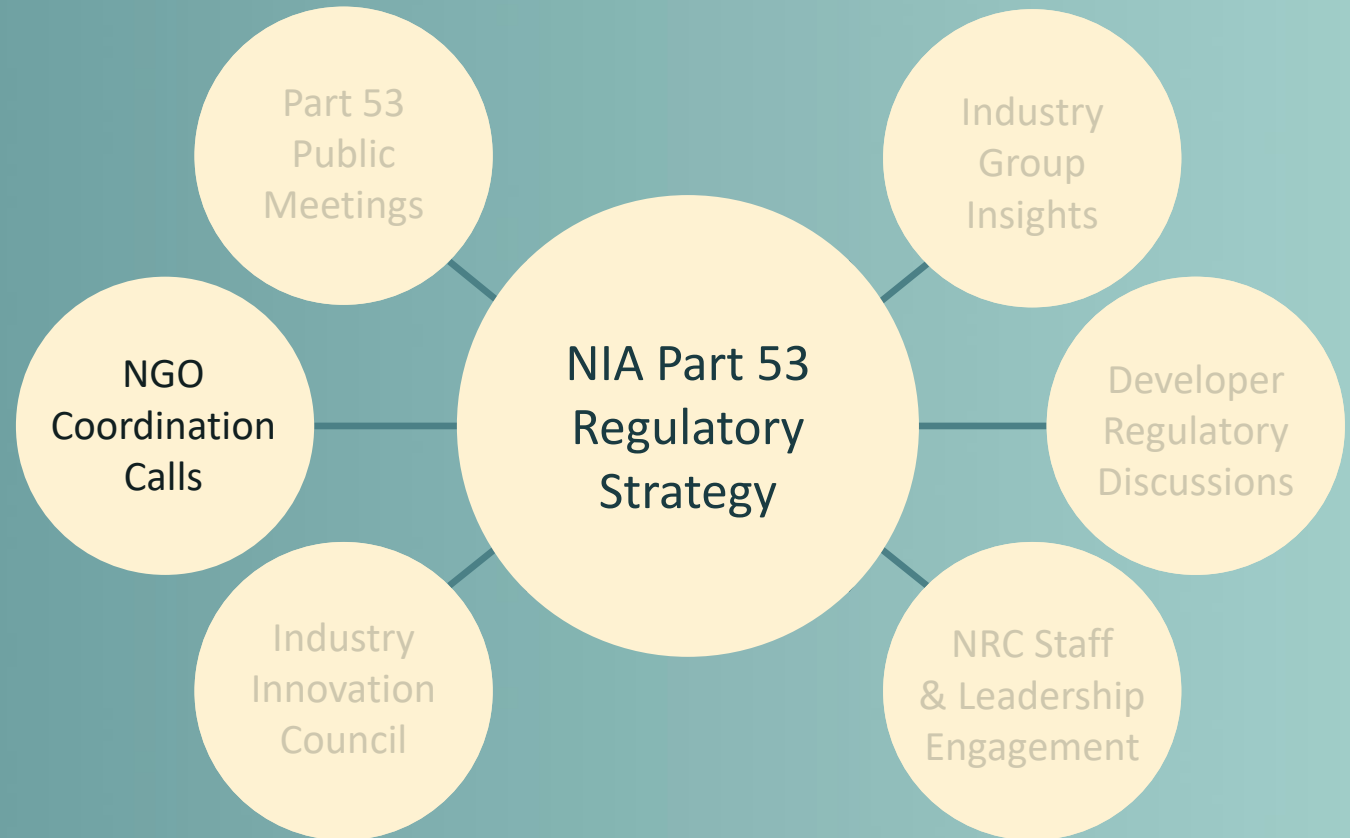
NA NUCLEAR INNOVATION ALLIANCE

BREAKTHROUGH INSTITUTE

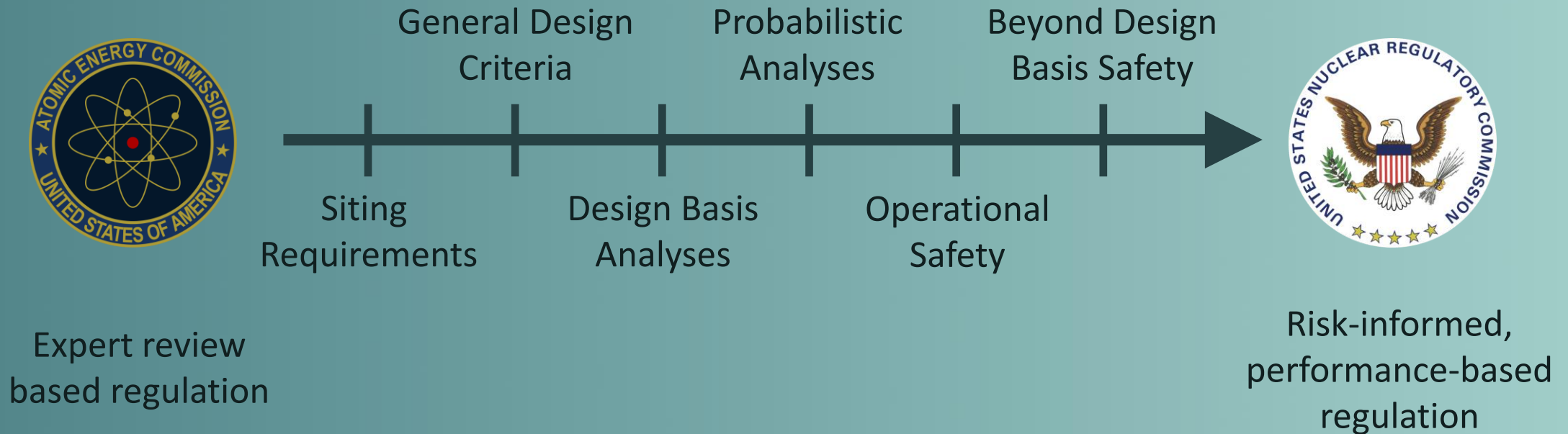
CLEARPATH

g good energy collective

THIRD WAY



Development of nuclear regulatory frameworks is an inherently iterative process



Part 53 should enable both evolutionary and innovative approaches to regulation



Westinghouse *AP1000*

1120 MWe
Water Cooled

Evolutionary Regulation

Regulatory paradigms

- Regulatory requirements
- Analysis methods
- Regulatory assumptions
- Reactor design criteria
- Probabilistic assessments
- Organizational programs
- Operational requirements
- Equipment qualification
- Reactor siting

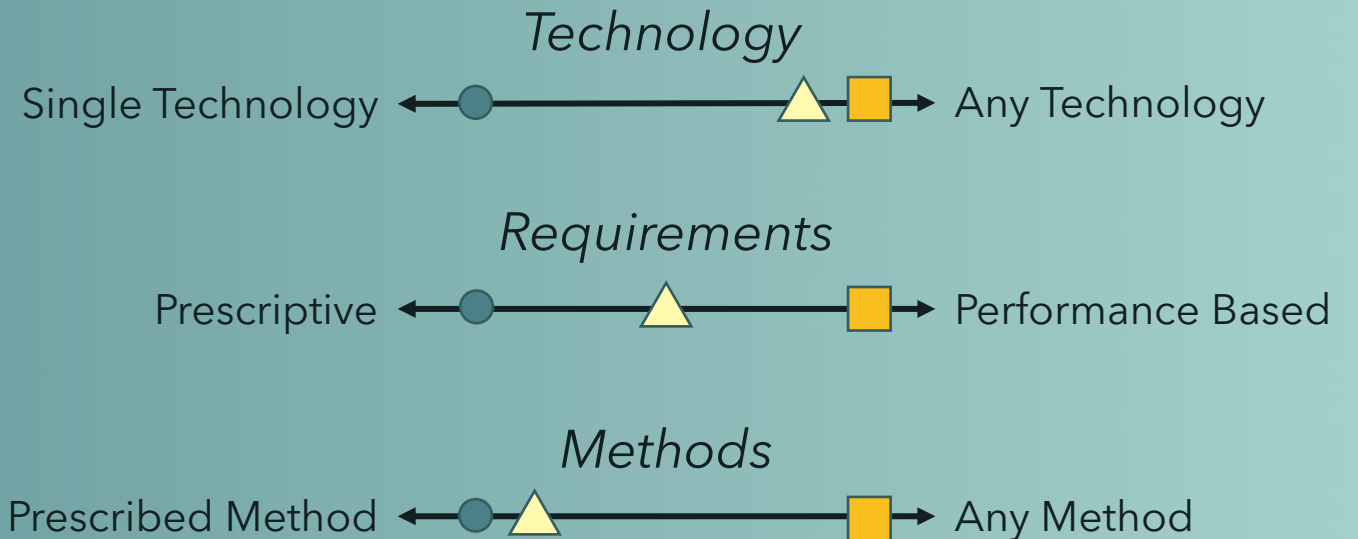
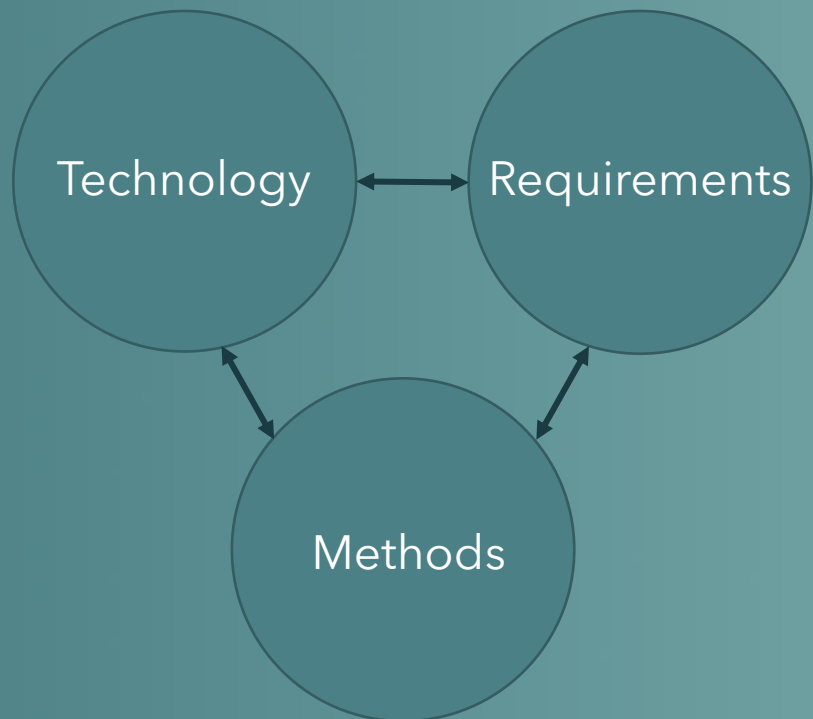


Oklo *Aurora*

1 MWe
Heat Pipe Cooled

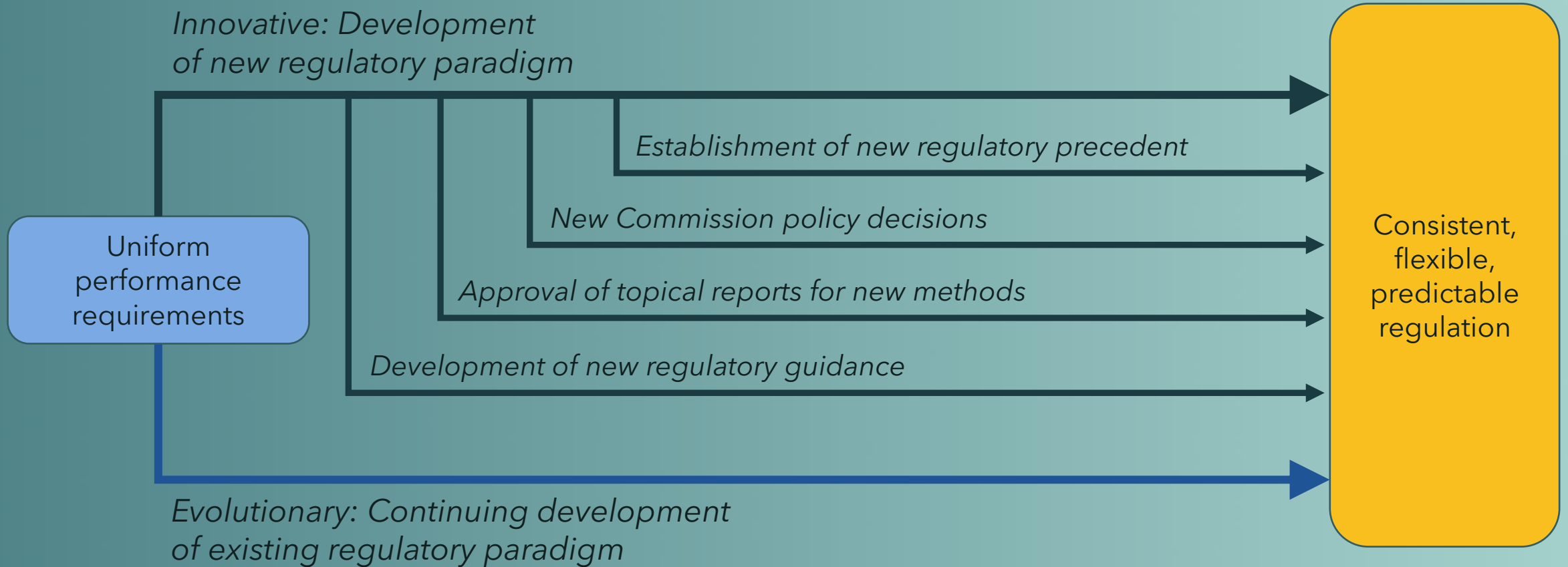
Innovative Regulation?

Part 53 regulations can balance certainty and flexibility across multiple characteristics



- Existing LWR regulation
- ▲ Released NRC Part 53 draft text
- Goal for a flexible regulatory framework

Part 53 could enable selection of framework pathways that meet facility or project goals



Part 53 framework can be reimaged to facilitate both evolutionary and innovation regulations

