

Fukushima, the View from America:

Lessons Learned (and Unlearned) for Risk Governance

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Plan of the talk

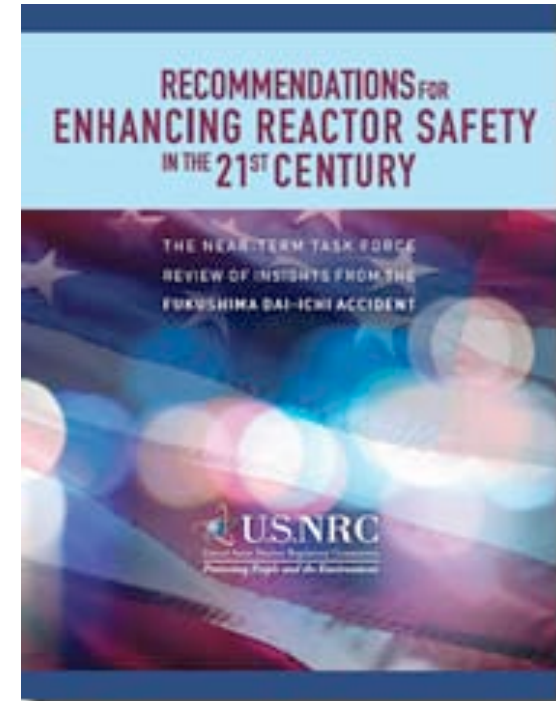
- I. The U.S. Nuclear Regulatory Commission and the Fukushima Nuclear Disaster
- II. Lessons in Dispute
- III. Getting Beyond the Design Basis

The U.S. Nuclear Regulatory Commission and the Fukushima Nuclear Disaster

“**Design-basis events** became a central element of the safety approach almost 50 years ago when the U.S. Atomic Energy Commission (AEC) formulated the idea of requiring safety systems to address a prescribed set of anticipated operational occurrences and postulated accidents. . .

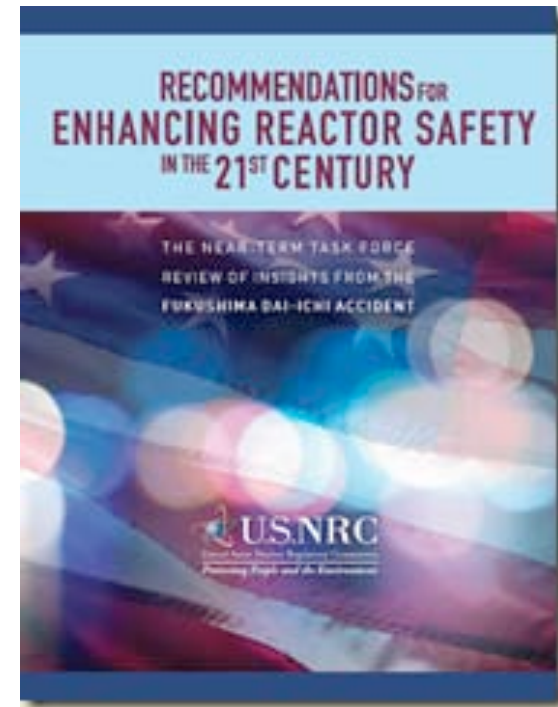
Frequently, the concept of design-basis events has been equated to adequate protection, and the concept of **beyond-design-basis events** has been equated to beyond adequate protection (i.e., safety enhancements).”

--US NRC



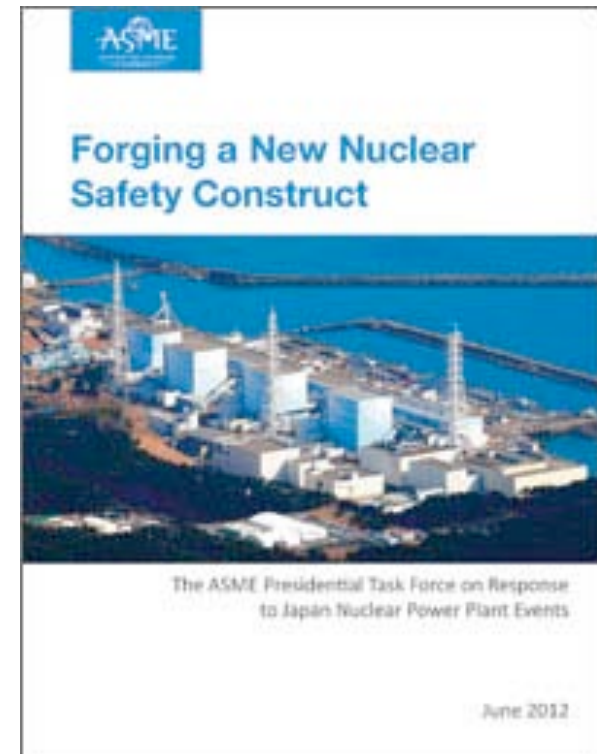
“Although complex, the current regulatory approach has served the Commission and the public well and allows the Task Force to conclude that a sequence of events like those occurring in the Fukushima accident is unlikely to occur in the United States ...”

--US NRC



The new construct “extends the design basis to consider all risks, and includes rare yet credible events . . . the new safety construct [should] be based on an **all-risk approach** . . .

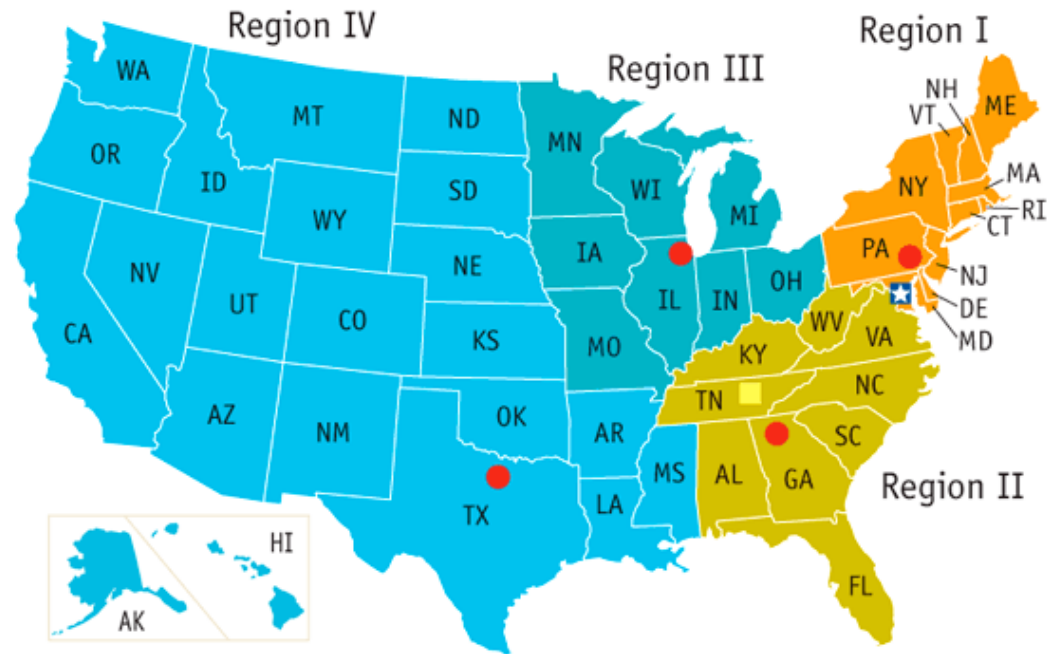
Cliff-edge events—those for which a small incremental increase in severity can yield a disproportionate increase in consequences—should be discovered and mitigation approaches implemented.”
--ASME



Lessons in Dispute



U.S. NRC

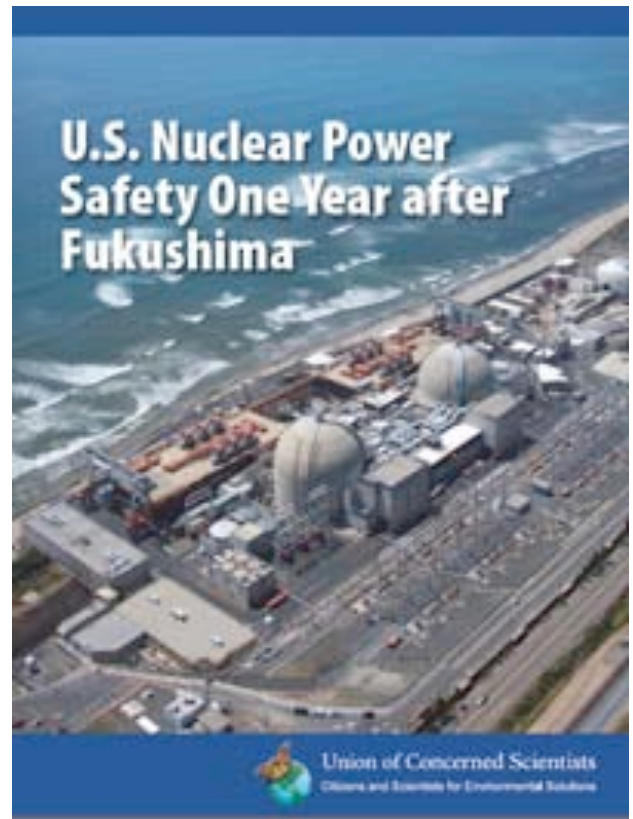




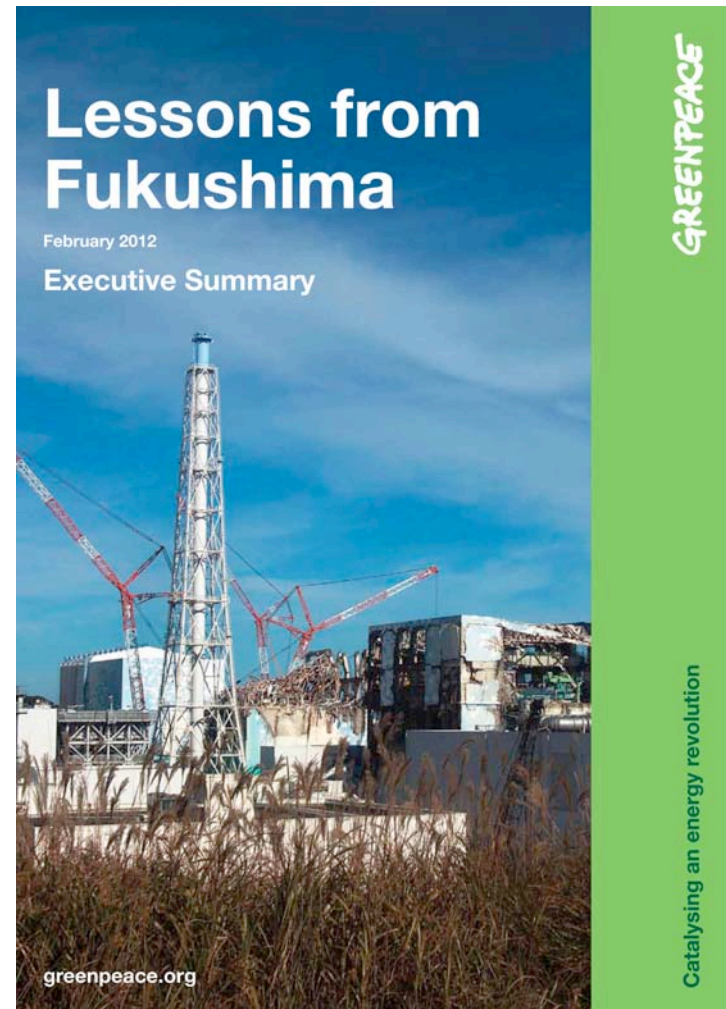
Gregory Jaczko, U.S. Nuclear Regulatory Commission (US NRC) Chairman

“the nuclear power industry has jumped into the breach, proposing what it calls the ‘Diverse and Flexible Coping Capability’ program, or FLEX, as the foundation of its Fukushima response. . . Some nuclear plants have already begun implementing the FLEX strategy, which could make it difficult for the NRC to impose higher standards which FLEX equipment might fail to meet. **The industry tail may be wagging the regulatory dog.**”

--Union of Concerned Scientists



“the Fukushima Daiichi disaster has demonstrated that the safety claims of the nuclear industry and its national as well as international regulators are false.”
--Greenpeace





“The NRC’s failure to protect the public existed long before Gregory Jaczko became the NRC chairman ... Congress should not be sidetracked into thinking he is the source of the problem or that his removal would be the solution.” --Union of Concerned Scientists

Getting Beyond the Design Basis

It is imperative that we see “lessons learned” as part and parcel of larger political processes whereby risks are not assessed through some imagined neutral, objective framework, but rather through the workings of politics—the gnashing and grinding of interests as they seek to expand or to curtail the use of a given system, like nuclear power.

“Acknowledging the limits of prediction and control, **technologies of humility** confront ‘head-on’ the normative implications of our lack of perfect foresight. They call for different expert capabilities and different forms of engagement between experts, decision-makers, and the public than were considered needful in the governance structures of high modernity. They require not only the formal mechanisms of participation but also an intellectual environment in which citizens are encouraged to bring their knowledge and skills to bear on the resolution of common problems.”

--Sheila Jasanoff (2003)

“it is important to ask whether some industrial systems have such huge catastrophic potential that they should not be allowed to exist.”

--Charles Perrow, 2011

Thank you . . . and I look
forward to the
discussion . . .

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