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United States Nuclear Regulatory Commission

Protecting People and the Environment

The Future of Nuclear Energy in the United States

Commissioner William Ostendorff

National Academies Roundtable on Science and Technology for Sustainability

June 27, 2012

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Introduction

- Current status of nuclear power in the U.S.
- NRC issues
- National issues

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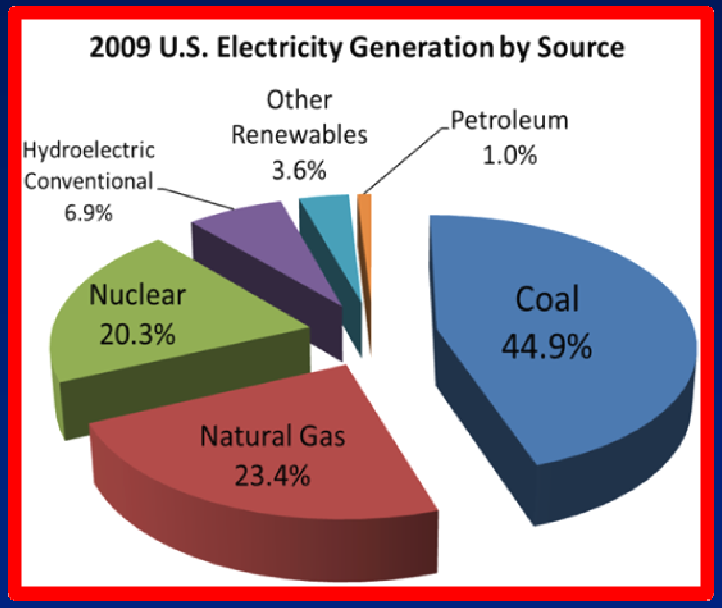
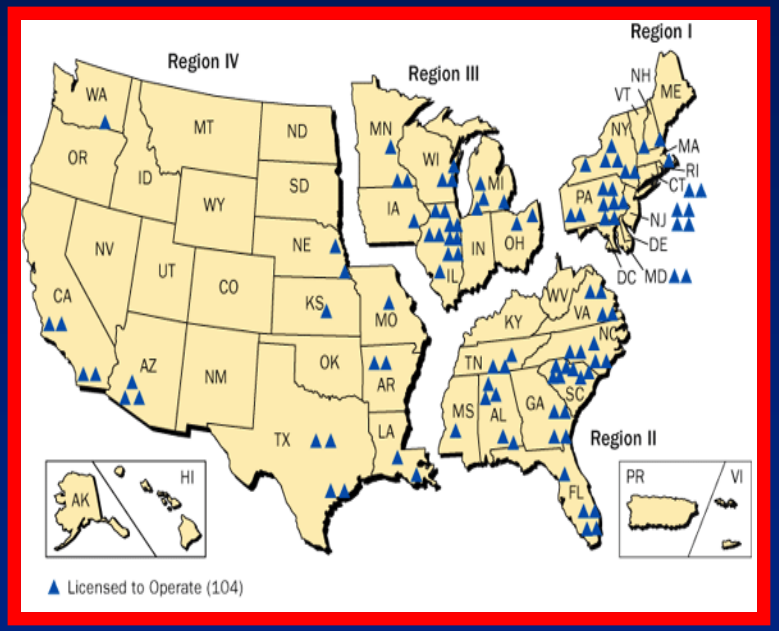
The Current Status of Domestic Nuclear Power





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Fukushima

- Continued operation and licensing do not pose an imminent risk to safety.
- Task Force conclusion reinforced decision that there was ***no need*** to shut down plants in the wake of Fukushima.

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Fukushima

Commission's Approach

- Implement certain recommendations without delay
- Integrated and prioritized assessment

•Strive to implement lessons learned within 5 years – by 2016
•Transparent , clear, and specific implementation
•Performance-based system

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Perspectives on International Visits

- Czech Republic
- Vietnam
- Japan

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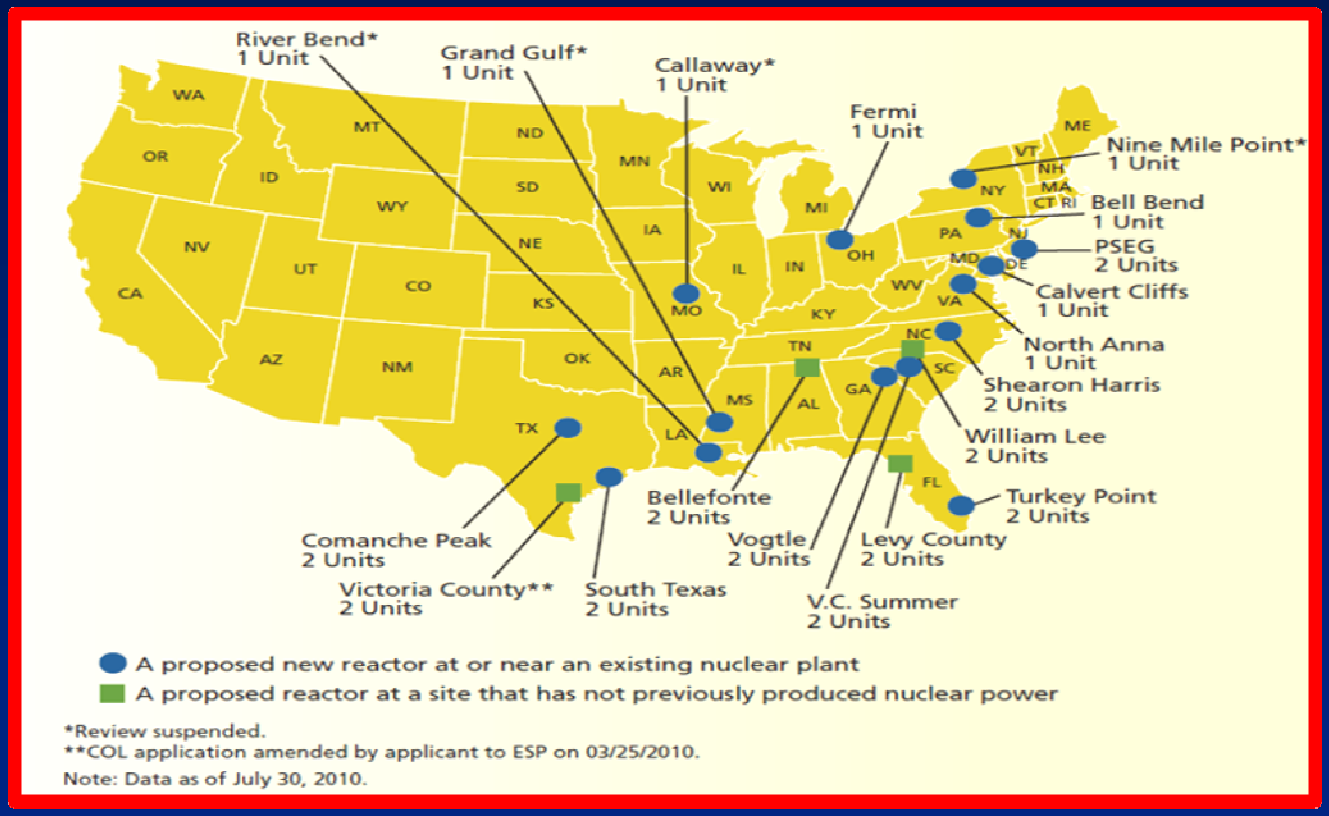
New Reactor Licensing



*Review suspended.
**COL application amended by applicant to ESP on 03/25/2010.
Note: Data as of July 30, 2010.

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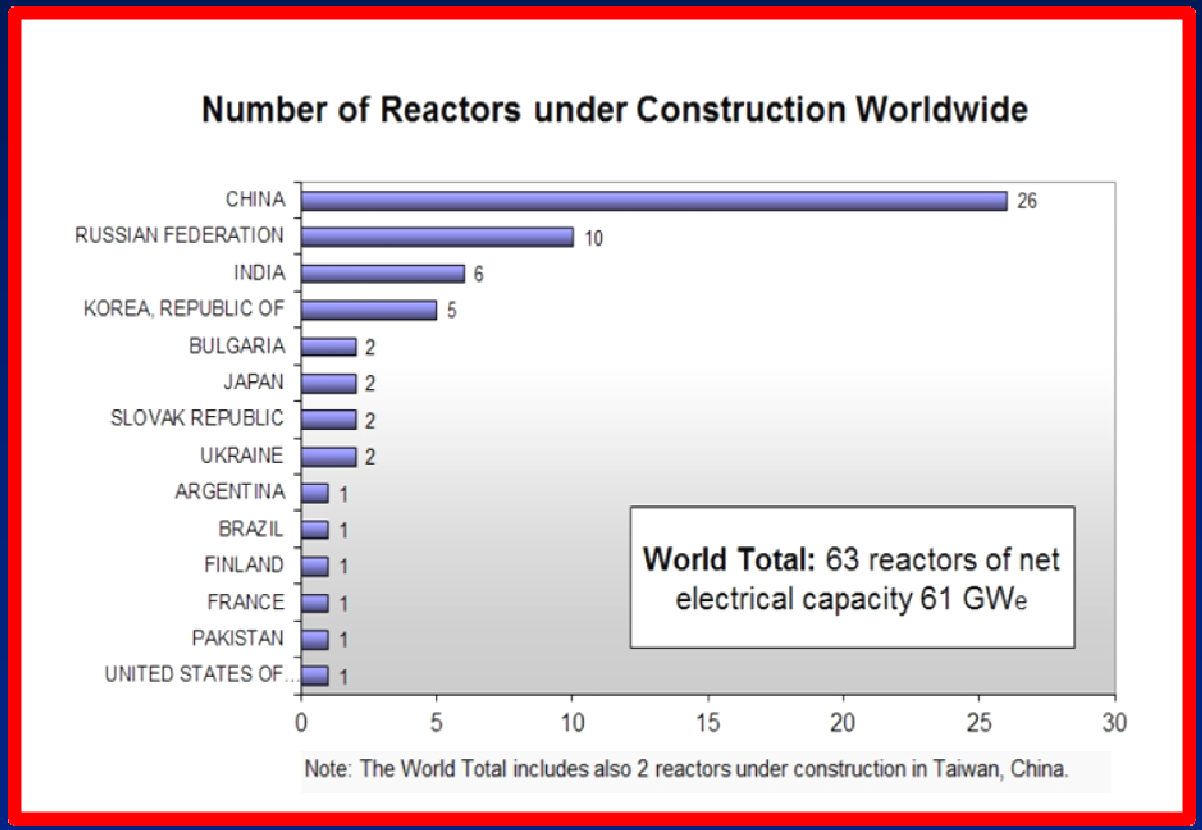
International New Reactor Construction



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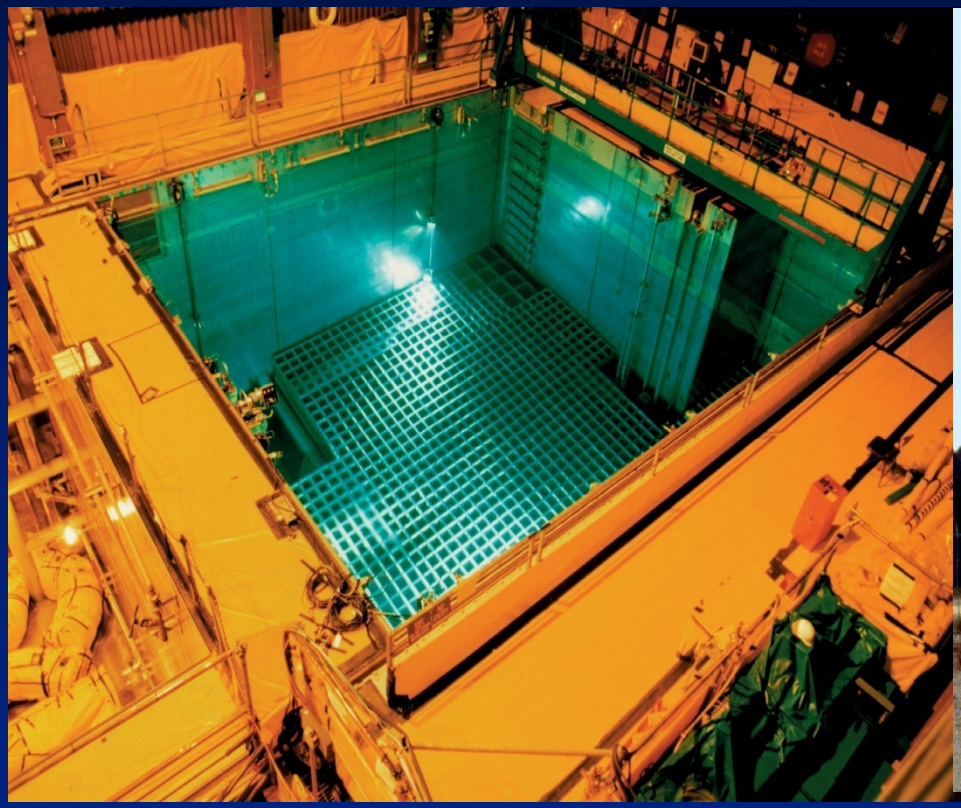
Spent Fuel



Spent Fuel Pool

Dry Cask Storage

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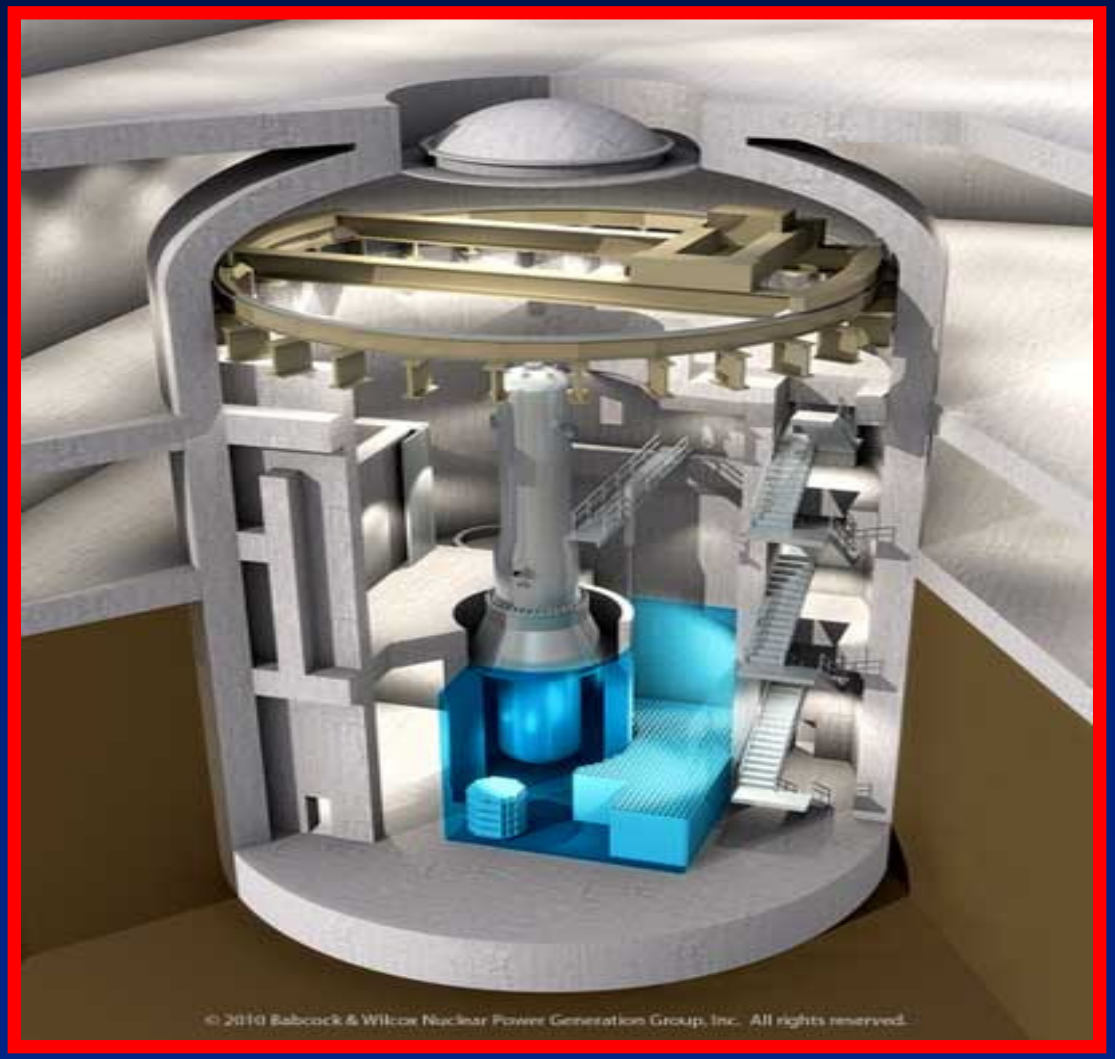
Small Modular Reactors



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The Future of Domestic Nuclear Power-Economics

"Of all factors affecting prospects for the substantial growth of nuclear power in the 21st century, cost is the most fundamental" (WNA)

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The Future of Domestic Nuclear Power-Demand

" NERC: Texas, California Face Power Squeeze This Summer"
May 31, 2012

http://www.internal.nrc.gov/IRM/LIBRARY/ejournal/pdf/ed/ed120531.pdf

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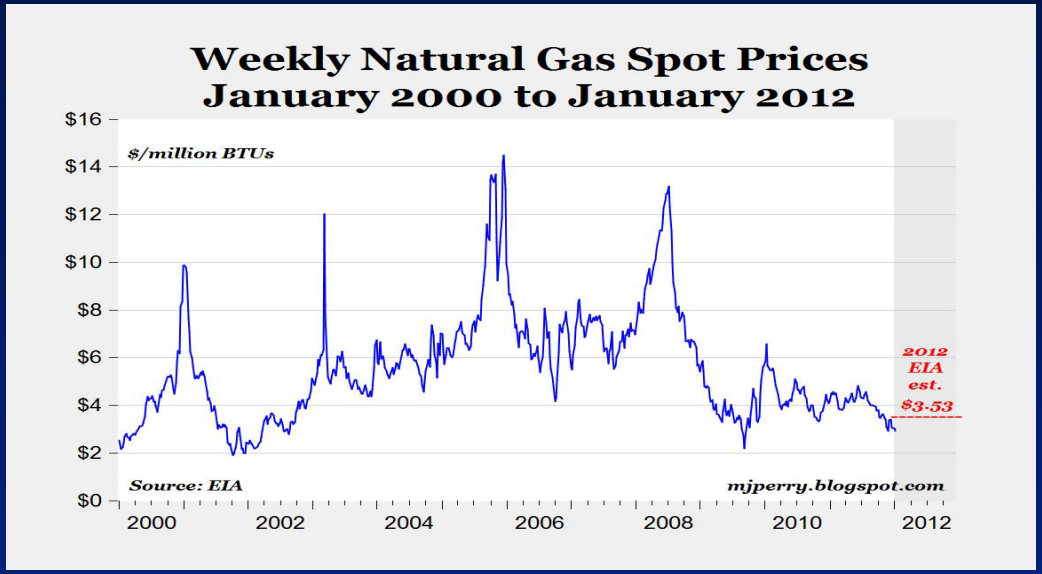
The Future of Domestic Nuclear Power-Alternatives



"Renewable-Power Boom Leaves Nations Without Backup, Report Shows"
June 8, 2012

http://www.bloomberg.com/news/2012-06-08/renewable-power-boom-leaves-nations-without-backup-report-shows.html

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Carbon Emissions

"EPA Proposes First Carbon Pollution Standard for New Plants"

03/27/2012

http://yosemite.epa.gov/opa/admpress.nsf/79c090e81f0578738525781f0043619b/f643f668117ffecf852579ce007046cb!opendocument

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Construction Costs

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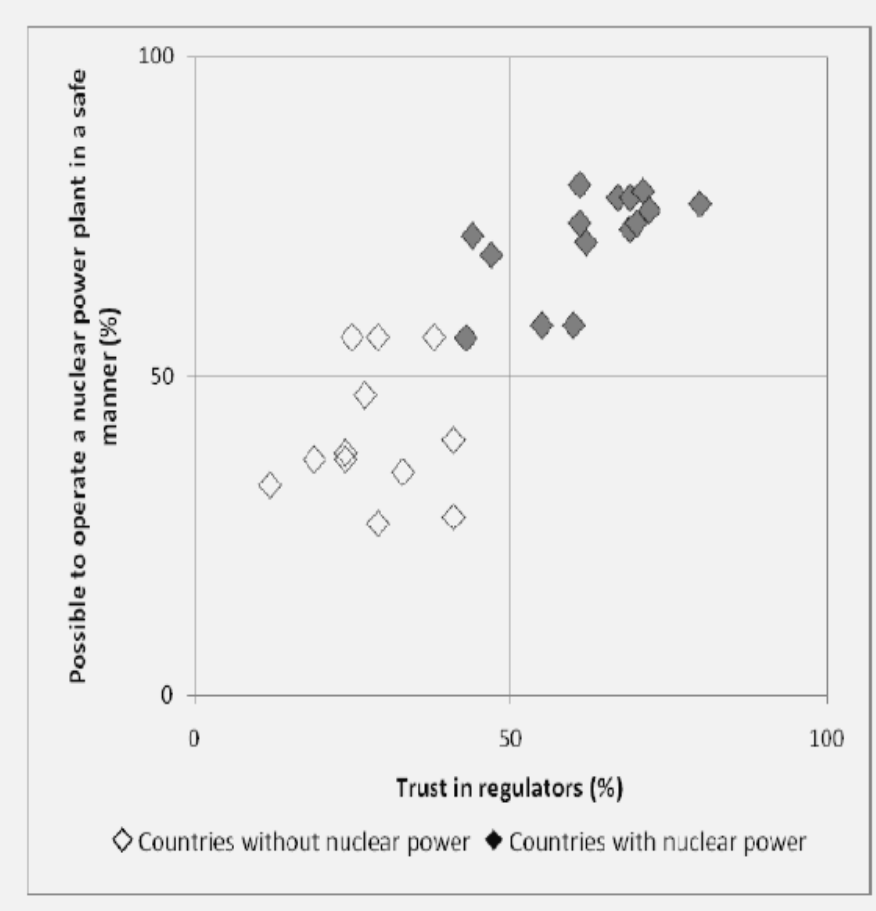
Public Opinion



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Conclusions- The Future of Nuclear Power

- Operation and new licensing of nuclear power plants continue in the U.S
- The NRC is addressing several relevant policy issues
- Several comingled factors, including economics and environmental regulation, will impact the future of nuclear power
- Communication with the public is critical