The Way Forward After the Fukushima Accident

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Today’s Discussion

- Industry response to Fukushima Daiichi accident
- NRC Task Force 90-day assessment and NRC staff near-term recommendations
- U.S. reaction to the Fukushima accident
Immediate Industry Response to Fukushima

- Four directives (Incident Event Reports) from INPO requiring stations to take certain actions
  - Ability to manage flooding, seismic events
  - Spent fuel pool cooling capability
  - Effectiveness of operator fundamentals and training programs
  - Improve margin given external events and loss of AC power

- Created industry-wide Fukushima response organization
Fukushima Response Steering Committee

- Chaired by Chip Pardee, COO, Exelon Gen
- Cross-section of 12 Chief Nuclear Officers
  - INPO, EPRI and NEI
- Coordinate industry activities
- Approve action plans
- Monitor implementation of actions
The Way Forward

- Strategic Goals
- Guiding Principles
- Stakeholders and Desired Outcomes
- Organization and Building Blocks
Disciplined, Systematic Industry Response

Fukushima Response Steering Committee

EPRI Nuclear Power Council

INPO Executive Advisory Group

NEI Advisory Committees

Building Block 7: Technical and R&D

Building Block 6: Support International Organizations

Building Block 5: Regulatory Response

Building Block 4: Strategic Communications and Outreach

Building Block 3: Improve Effectiveness of Industry Response

Building Block 2: Lessons Learned

Building Block 1: Existing Plant Performance

Building Block 4: Strategic Communications and Outreach

Building Block 5: Regulatory Response
NRC 90-Day Task Force Report

- U.S. plants are safe: “...continued operation and continued licensing activities do not pose an imminent risk to public health and safety.”
- No changes required for used fuel storage
- No change in emergency planning zones
- 34 recommendations
  - 12 orders
  - 7 proposed rules
  - 15 NRC staff and long-term recommendations
NRC Tier 1 Recommendations

- Seismic and flood hazard reevaluations
- Seismic and flood walkdowns
- Station blackout regulatory actions
- 10 CFR 50.54(hh)(2) equipment
- Hardened vents for Mark I and IIs
- Spent Fuel Pool monitoring/instrumentation
- Strengthening integration of SAMGs/EDMGs
- Emergency Preparedness (Staffing and communications)
Initial Industry Assessment

- Scope of issues approximately correct
- Good alignment with industry recommendations
- All items require stakeholder interaction
- Must prioritize and integrate Fukushima-related actions with existing NRC and licensee activities
Meanwhile, Licensing Continues

- Power uprates approved for Limerick, Point Beach
- License renewals approved for Vermont Yankee, Palo Verde, Prairie Island, Salem, Hope Creek
- Final environmental impact statements approved for 7 new reactors in Georgia, South Carolina, Texas and Maryland
- Vogtle mandatory hearing
- Final safety evaluation report for ESBWR
- Construction progressing at Watts Bar 2, Vogtle and V.C. Summer
NEI Expands Public Outreach

“The commitment to safety among nuclear plant operators is second to none.”

Douglas D. Coble, Shift Manager Operators at the Powerton nuclear facility in Illinois.

Plant operators undergo intense training and are frequently tested on structures that are essential to their plant control rooms. They are held to the highest of standards by independent Nuclear Regulatory Commission inspectors who provide ongoing oversight at every reactor every day.

American energy companies are the world leaders in nuclear energy, with 30 reactors producing one-fifth of our electricity. Providing affordable electricity and ending our dependence on foreign energy sources simply cannot be achieved without nuclear energy playing a significant role in a balanced energy portfolio.

For more information on safe nuclear energy, go to nei.org

“...layers precaution on top of precaution.”

Natalie Wood, junior engineer at the River Bend nuclear energy facility in Louisiana.

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Communities have the right to know the safety record of their nuclear energy plants. We are proud to share it. Professionals like Doug Coble are working to exceed already stringent federal safety standards at their power plants. American nuclear plants are among the safest in the world, because they are monitored and operated by highly trained, experienced and licensed reactor operators. They undergo significantly more oversight and have more safety measures in place than reactors in other countries.

Among the many safety features at every nuclear power plant is a four-foot thick, steel reinforced containment building that protects the reactor and its safety systems. The U.S. Nuclear Regulatory Commission requires nuclear power plants to be able to withstand the most severe natural events that may occur near their locations, including earthquakes, tsunamis, hurricanes, floods, tornadoes and large fires. The NRC also requires additional safety features to account for any uncertainties in forecasting these events.
Public Opinion Begins To Recover

- Slight increase in favorability of nuclear energy:
  - 2009: 64%
  - April: 46%
  - July: 50% (66% among opinion leaders)

- 62% of the public favors industry expansion; 29% status quo

- 81% agree U.S. should learn from Japan and license new plants rather than stopping progress entirely

Source: Luntz Global
Plant Neighbor Opinions June 2011
Impression of Nearby Nuclear Power Plant and How it Has Operated Recently

Percentages

- Favorable: 86%
- Unfavorable: 11%
- Very favorable: 59%
- Somewhat favorable: 27%
- Somewhat unfavorable: 7%
- Very unfavorable: 4%
- Don't know: 3%

90% favorable in July 2009

Bisconti Research for NEI
Plant Neighbor Opinions June 2011

Acceptability of New Reactor at Nearby Plant Site

Percentages

Acceptable to build: 67%
Not acceptable to build: 28%

76% favorable in July 2009

Bisconti Research for NEI
Conclusion: Responsible Reactions

- Expect disciplined regulatory response from NRC
- Measured political response
- Public attitudes (particularly opinion leaders) remain strong
- Reasoned editorial reaction

“If it is serious about cutting carbon emissions, the United States should keep nuclear on the table.”
—April 29 editorial