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NWI Impacts from a Global Event

US NRC Task Force: Response to the Fukashima Dai-ichi Event

THE NEAR-TERM TASK FORCE REVIEW OF INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT – July 12, 2011

A Near-Term Task Force was established in response to direction to conduct a systematic and methodical review of NRC processes and regulations to determine whether the agency should make additional improvements to its regulatory system. In addition, the Task Force had been chartered to make recommendations to the Commission for its policy direction, in light of the accident at the Fukushima Dai-ichi Nuclear Power Plant. The Task Force appreciates that an accident involving core damage and uncontrolled release of radioactive material to the environment, even one without significant health consequences, is inherently unacceptable. The Task Force also recognizes that there likely will be more than 100 nuclear power plants operating throughout the United States for decades to come. The Task Force developed its recommendations in full recognition of this environment.

In examining the Fukushima Dai-ichi accident for insights for reactors in the United States, the Task Force addressed protecting against accidents resulting from natural phenomena, mitigating the consequences of such accidents, and ensuring emergency preparedness.

The accident in Japan was caused by a natural event (i.e., tsunami) which was far more severe than the design basis for the Fukushima Dai-ichi Nuclear Power Plant. As part of its undertaking, the Task Force studied the manner in which the NRC has historically required protection from natural phenomena and how the NRC has addressed events that exceed the current design basis for plants in the United States.

In general, the Task Force found that the current NRC regulatory approach includes:

- requirements for design-basis events with protection and mitigation features controlled through specific regulations or the general design criteria (Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix A, "General Design Criteria for Nuclear Power Plants")
- requirements for some "beyond-design-basis" events through specific regulations (e.g., station blackout, large fires, and explosions)
- voluntary industry initiatives to address severe accident features, strategies, and guidelines for operating reactors.

This regulatory approach, established and supplemented piece-by-piece over the decades, has addressed many safety concerns and issues, using the best information and techniques available at the time. The result is a patchwork of regulatory requirements and other safety initiatives, all important, but not all given equivalent consideration and treatment by licensees or during NRC technical review and inspection. Consistent with the NRC's organizational value of excellence, the Task Force believes that improving the NRC's regulatory framework is an appropriate, realistic, and achievable goal.

The current regulatory approach, and more importantly, the resultant plant capabilities allow the Task Force to conclude that a sequence of events like the Fukushima accident is unlikely to occur in the United States and some appropriate mitigation measures have been implemented, reducing the likelihood of core damage and radiological releases. Therefore, continued operation and continued licensing activities do not pose an imminent risk to public health and safety. However, the Task Force also concludes that a more balanced applica-

Inside this issue:

US NRC Task Force: Response to the Fukashima Dai-ichi Event

(Continued from Page 1)

tion of the Commission's defense-in-depth philosophy using risk insights would provide an enhanced regulatory framework that is logical, systematic, coherent, and better understood. Such a framework would support appropriate requirements for increased capability to address events of low likelihood and high consequence, thus significantly enhancing safety. Excellence in regulation demands that the Task Force provide the Commission with its best insights and vision for an improved regulatory framework.

The Task Force finds that the Commission's longstanding defense-in-depth philosophy, supported and modified as necessary by state-of-the-art probabilistic risk assessment techniques, should continue to serve as the primary organizing principle of its regulatory framework. The Task Force concludes that the application of the defense-in-depth philosophy can be strengthened by including explicit requirements for beyond-design-basis events. Many of the elements of such a regulatory framework already exist in the form of rules regarding station blackout, anticipated transient without scram, maintenance, combustible gas control, aircraft impact assessment, beyond-design-basis fires and explosions, and alternative treatment. Other elements, such as severe accident management guidelines, exist in voluntary industry initiatives. The Task Force has concluded that a collection of such "extended design-basis" requirements, with an appropriate set of quality or special treatment standards, should be established.

The Task Force further sees this approach, if implemented, as a more comprehensive and systematic application of defense-in-depth to NRC requirements for providing "adequate protection" of public health and safety. Implementation of this concept would require strong Commission support for a clear policy statement, rule changes, and revised staff guidance.
The Task Force notes that, after the attacks of September 11, 2001, the Commission established new security requirements on the basis of adequate protection. These new requirements did not result from any immediate or imminent threat to NRC-licensed facilities, but rather from new insights regarding potential security events. The Task Force concluded that the Fukushima Dai-ichi accident similarly provides new insights regarding low-likelihood, high-consequence events that warrant enhancements to defense-in-depth on the basis of redefining the level of protection that is regarded as adequate. The Task Force recommendation for an enhanced regulatory framework is intended to establish a coherent and transparent basis for treatment of the Fukushima insights. It is also intended to provide lasting direction to the staff regarding a consistent decision-making framework for future issues.
The Task Force has considered industry initiatives in this framework and sees that these could play a useful and valuable role. The Task Force believes that voluntary industry initiatives should not serve as a substitute for regulatory requirements but as a mechanism for facilitating and standardizing implementation of such requirements.
The Task Force applied this conceptual framework during its deliberations. The result is a set of recommendations that take a balanced approach to defense-in-depth as applied to low-likelihood, high-consequence events such as prolonged station blackout resulting from severe natural phenomena. These recommendations, taken together, are intended to clarify and strengthen the regulatory framework for protection against natural disasters, mitigation, and emergency preparedness, and to improve the effectiveness of the NRC's programs.
The Task Force's overarching recommendations are:

Clarifying the Regulatory Framework

1. Establish a logical, systematic, and coherent regulatory framework for adequate protection that appropriately balances defense-in-depth and risk considerations.

Ensuring Protection

2. Require licensees to reevaluate and upgrade as necessary the design-basis seismic and flooding protection of structures, systems, and components for each operating reactor.

3. As part of the longer term review, evaluate potential enhancements to the capability to prevent or mitigate seismically induced fires and floods.

Enhancing Mitigation

4. Strengthen station blackout mitigation capability at all operating and new reactors for design-basis and beyond-design-basis external events.

5. Require reliable hardened vent designs in boiling water reactor facilities with Mark I and Mark II containments.

6. As part of the longer term review, the NRC should identify insights about hydrogen control and mitigation inside containment or in other buildings as additional information is revealed through further study of the Fukushima Dai-ichi accident.

7. Enhance spent fuel pool makeup capability and instrumentation for the spent fuel pool.

8. Strengthen and integrate onsite emergency response capabilities such as emergency operating procedures, severe accident management guidelines, and extensive damage mitigation guidelines .

Strengthening Emergency Preparedness

9. Require that facility emergency plans address prolonged station blackout and multiunit events.

(Continued on Page 4)

NRC Task Force Report: Different Viewpoints

A task force convened by the Nuclear Regulatory Commission to study the lessons learned from the disaster at the Fukushima Daiichi nuclear power plant in Japan is recommending that U.S. nuclear plants be required to make a number of major changes (See Article Page 1). The NRC met July 19 to discuss the report. The task force will issue another, updated report within six months, the commission said. Operations at U.S. nuclear plants "do not pose an imminent risk to public health and safety" and a sequence of events such as happened at Fukushima is unlikely to occur in the United States, the report said. However, an accident involving core damage and uncontrolled release of radioactivity "is inherently unacceptable," the task force said. The task force made a dozen recommendations to improve safety at the nation's 104 nuclear plants, including (1) requiring plants to re-evaluate and upgrade as necessary their design-basis seismic and flooding protection of structures, systems and components for each operating reactor and reconfirm that design basis every 10 years; (2) Strengthening station blackout mitigation capability for existing and new reactors for design-basis and beyond-design-basis natural events – such as floods, hurricanes, earthquakes, tornadoes or tsunamis – with a rule to set minimum coping time without offsite or onsite AC power at eight hours; establishing equipment, procedures and training to keep the core and spent fuel pool cool at least 72 hours; and pre-planning and pre-staging offsite resources to be delivered to the site to support uninterrupted core and pool cooling and coolant system and containment integrity as needed; and (3) requiring that facility emergency plans address prolonged station blackouts and events involving multiple reactors. The task force held a public meeting to discuss the report on July 28, and members of the task force will appear before the NRC's Advisory Committee on Reactor Safeguards on Aug. 17. Additional meetings may be scheduled to seek public input on the recommendations, the NRC said. Carrying out the full scope of the report's recommendations, if approved by the NRC commissioners, "would require clear policy direction from the commission on reshaping the agency's regulatory framework," said Tony Pietrangelo, senior vice president and chief nuclear officer for the Nuclear Energy Institute. "Given the mammoth challenge it faced in gathering and evaluating the still-incomplete information from Japan, the agency should seek broader engagement with stakeholders on the task force report to ensure that its decisions are informed by the best information possible."

The Union of Concerned Scientists said the NRC task force's recommendations do not go far enough. The nuclear watchdog group said the NRC should require plant owners to move spent fuel at reactor sites from storage pools to dry casks when it has cooled enough to do so. The commission also "should revise its assumptions about terrorists' capabilities to ensure nuclear plants are adequately protected against credible threats," and these assumptions should be reviewed by U.S. intelligence agencies. A Fukushima-like crisis could happen at any of the 104 nuclear reactors in this country, said David Lochbaum, director of UCS's Nuclear Safety Project. "Japan's reactor designs are similar, their protective barriers are similar, and their regulations are, in some cases, even stronger," said Lochbaum, who worked in the U.S. nuclear industry for 17 years before joining UCS. "If a U.S reactor were faced with a similar challenge, maybe not the exact combo of earthquake and tsunami, but some other natural disaster or human error, it's unlikely that the story would have a happier ending."

The task force noted that precise information about events at Fukushima still is elusive. Information was "unavailable, unreliable or ambiguous because of damage to equipment at the site and because the Japanese response continues to focus on actions to stop the ongoing radioactive release."

— July 18, 2011: No. 28, American Public Power Assoc.,, 1875 Connecticut Ave., NW, Suite 1200, Washington, DC 20009

Exelon 'Not in Any Panic' Over Nuclear Regulations

The country's largest owner of nuclear power plants said Wednesday that it doesn't expect enhanced regulations from the Fukushima Daiichi nuclear disaster to impact the economics of its plants. "We're not in any panic at all," John Rowe, chairman and CEO of Chicago-based Exelon Corp. told investors on an earnings call. Exelon has met or topped Wall Street expectations for 11 straight quarters. Under proposed new regulations recommended earlier this month by a U.S. nuclear regulatory task force, Exelon and other nuclear operators would have to upgrade plants to withstand unexpected natural disasters. A subcommittee of The Blue Ribbon Commission on America's Nuclear Future charged with answering the question of how to dispose of the nation's growing stockpile of nuclear waste is expected to release its findings in early August, 2011.

Rowe said the company's "worst fears" -- changes to the nuclear licensing process; mandates that would increased security personnel; or standards that would lower the amount of time spent nuclear fuel can be stored in cooling pools -- (all potential big ticket items for Exelon) so far haven't surfaced. "We don't at the moment see anything that has a major impact on the

(Continued on Page 6)

US NRC Task Force: Response to the Fukashima Dai-ichi Event

10. As part of the longer term review, the NRC pursue additional emergency preparedness topics related to multiunit events and prolonged station blackout.

11. As part of the longer term review, the NRC should pursue emergency preparedness topics related to decision-making, radiation monitoring, and public education.

Improving the Efficiency of NRC Programs

12. Strengthen regulatory oversight of licensee safety performance (i.e., the Reactor Oversight Process) by focusing more attention on defense-in-depth requirements consistent with the recommended defense-in-depth framework.

The Task Force presents further details on its recommendations in this report and an implementation strategy in its report in Appendix A. The strategy includes several rulemaking activities to establish new requirements. Recognizing that rulemaking and subsequent implementation typically take several years to accomplish, the Task Force recommends interim actions to enhance protection, mitigation, and preparedness while the rulemaking activities are conducted.

The recommendations are based on the best available information regarding the Fukushima Dai-ichi accident and a review of relevant NRC requirements and programs. The Task Force concludes that these are a reasonable set of actions to enhance U.S. reactor safety in the 21st century. The Nuclear Regulatory Commission has directed its staff to complete several actions within the next 45 days in response to recommendations from the agency's Near-Term Task Force examination of the Fukushima Dai-ichi nuclear accident in Japan.

"I am pleased to see the Commission moving the agency forward on these important issues, and I look forward to receiving additional input from our technical experts, the industry and the public as we proceed," said NRC Chairman Gregory Jaczko. "The plan we've established will require a dedicated effort by our staff and stakeholders, and will require a continued commitment by the Commission to see that these recommendations are promptly addressed."

The Commission has asked the staff for a series of papers in the next two months covering various aspects of the Task Force's work. These include:

- The staff has until Sept. 9 to produce a paper outlining which of the Task Force's recommendations 2 - 12, either in part or in whole, the staff believes should be implemented without unnecessary delay. The 21-day effort will include a public dialogue on the staff's proposal, and the staff expects to announce a public meeting in the next few days. The staff has until Oct. 3 to produce a paper which prioritizes
- Task Force recommendations 2 - 12. This paper is expected to lay out all agency actions to be taken in responding to lessons learned from the Fukushima Dai-ichi accident. The paper will also lay out a schedule for interacting with the public, other stakeholders and the Advisory Committee on Reactor Safeguards (ACRS).
- The staff has 18 months to consider the Task Force's first and broadest recommendation, a call for revising the NRC's regulatory approach. The Task Force felt the NRC should find a better balance between the use of risk analysis to inform regulation and the "defense in depth" concept that underlies many of the agency's original requirements. The Task Force felt doing so would create a regulatory framework that is logical, systematic, coherent and more easily understood. The paper is expected to provide options, including a recommended course of action, in dealing with the Task Force's first recommendation.

The Commission's direction to the staff and the Task Force Report are both available on the NRC's website.

Decision to build Bellefonte 1

19 August 2011—Tennessee Valley Authority has decided to complete a nuclear reactor at Bellefonte - selling and leasing back another new reactor to pay for it. The decision yesterday by TVA's board brings to an end some five years of deliberation by the non-profit firm that manages power, water and other resources in the US state. Bellefonte 1 is a Babcock & Wilcox pressurized water reactor currently considered 55% complete. A $4.9 billion project should see it begin operation by 2020 to generate 1260 MWe.

At the same time, TVA will purchase a 900 MWe combined-cycle gas power plant from a subsidiary of Kel-

(Continued on Page 5)

Decision to build Bellefonte 1

son Energy. It is also going to fit sulphur dioxide and particulate control systems to its older Gallatin and Allen coal power plants to bring them up to "clean standards."

To pay for all this, TVA will raise cash by selling two new power plants it is now in the process of building before leasing them back from the new owners. One comprises two gas turbines at the John Sevier fossil power plant, the other is Watts Bar 2, another large nuclear reactor TVA is completing. The plants will be sold separately, most likely to financial institutions interested in holding industrial assets. TVA will continue to control, maintain and operate them.

Chief financial officer John Thomas said TVA had to use alternative methods to finance its investment because of statutory limits on the amount of bonds it could issue. The leaseback option would be "slightly more expensive" than bonds, he said, but would be cheaper overall than increasing public and commercial rates by more than the 2% approved yesterday. The final analysis will not come until buyers have been found for the new power plants at the end of a competitive process.

TVA's president and CEO, Tom Kilgore, said completing Bellefonte 1 was cheaper on a per-MW basis than the cost of replacing any of its fossil plants. The $4.9 billion project works out at a cost of $3888 per kilowatt of installed capacity. As essentially a brand-new reactor, the sale of Watts Bar 2 will be unprecedented and the price is impossible to predict. In the last decade prices seen in the US for old reactors, normally after some 30 years of service, have trended upwards from less than $400 to over $874 per kilowatt. Exceptionally, EDF paid some $2253 per kilowatt overall for its shares in Calvert Cliffs, Nine Mile Point and RE Ginna plants in 2009 when investing in Constellation Energy.

Re-working and restarts

Both the power plants, Watts Bar and Bellefonte, share a history of planning in the 1970s and suspended construction in the 1980s on a combination of rising costs and falling power demand. Another slightly older TVA plant with three reactors, Browns Ferry, achieved operation but was mothballed for the same reasons, exacerbated by operational problems. However, TVA brought Browns Ferry 2 and 3 back into service in 1991 and 1995 respectively, with Watts Bar 1 following in 1996 and Browns Ferry 1 in 2007. Earlier this month, Watts Bar 2's return date was pushed back slightly to 2013. Actual construction work on Bellefonte 1 will not start until fuel has been loaded at Watts Bar 2, said Kilgore, noting a conscious decision to constrain the risk of nuclear construction to one project at a time. By the same token, Kilgore said the "future decision" on the potential completion of Bellefonte 2 will not come until at least mid-way through work on unit 1.

Exelon CEO Says Nation Needs Nuclear Power, But Cites Economic Challenges to New Build

HOLLYWOOD, Fla., Aug 15, 2011 (BUSINESS WIRE) -- In a keynote address hosted by the American Nuclear Society today, Exelon Chairman and CEO John W. Rowe stressed the important role of nuclear power in the nation's future energy supply, while recognizing the challenges of building new nuclear projects in the current economic climate.

"The country needs nuclear power if it is going to tackle the problem of climate change, clean up our generation stack, maintain reliability and improve overall energy security," Rowe said. "But we must (Continued on Page 6)

CENG Reaches Agreement with IBEW Local 97

Constellation Energy Nuclear Group, LLCSM (CENG) announced today the end of the strike at Nine Mile Point Nuclear Station in Scriba, NY. The work stoppage ended once **IBEW Local 97 ratified the Tentative Agreement** reached on July 22 between the union and CENG with a vote of 395-64, or 86% approval. "We are pleased to welcome our represented employees back to the station and look forward to working together as a team to continue operating the facility at high levels of safety, quality and efficiency," said **Sam Belcher,** Vice President, Nine Mile Point Nuclear Station. "The needs of both sides were met in the agreement ratified by the employees of the station."

The term of the new labor agreement is July 1, 2011 through June 30, 2015. While keeping the total economics in line with the Company's business plan and the last offer, CENG rearranged the terms in a way that met the concerns and interests of both parties. A schedule for re-integration of employees will bring employees back in groups of 60-100, beginning Wednesday, July 27. "Our reintegration plan will ensure returning employees meet with their supervision to discuss plant status, standards and expectations, and our commitment to moving forward. Returning personnel will have adequate turnover with those management employees who have been safely operating the facility to ensure a safe transition of responsibilities," said Belcher. "The Nine Mile Point management employee team, with support from the CENG Fleet, operated the facility very well during the work stoppage with excellence in safety, reliability and efficiency. CENG is extremely proud of the professionalism and focus on safety displayed by these employees," added Belcher.

The U.S. Nuclear Regulatory Commission (NRC) provided additional oversight during the first two weeks of the work stoppage. During this time, the inspectors did not identify any issues related to the safe implementation of the contingency plan.

Exelon CEO Says Nation Needs Nuclear Power, But Cites Economic Challenges to New Build

(Continued from Page 5)

keep our hopes for new nuclear generation harnessed to facts. Nuclear power is a business and not a religion."

Rowe also reminded the audience of the need to keep the lessons of the tragic events at Fukushima in their thoughts as they do their jobs every day.

"Fukushima reinforces the importance of operating excellence," Rowe said. "We have to continue to be self-critical and strive to remove vulnerability from our operations. The nuclear industry has proven itself very durable despite tremendous challenges."

In his speech, Rowe described four criteria that must be met before a new nuclear renaissance can become a reality. While the industry now has the right passive reactor designs, it still needs a workable solution to the waste problem, increased demand, and stable, higher power prices to make it economical to build a new nuclear plant.

Rowe also cited Exelon 2020, the company's plan to effectively eliminate the equivalent of its 2001 carbon footprint by 2020. The plan, which analyzes the most cost-effective ways to add generation and reduce carbon emissions, shows that new nuclear has become even less economic over the past two years.

Rowe said Exelon 2020 will steer the company to a clean energy future--a future that, in spite of recent setbacks, will still rely heavily on nuclear energy.

"The nuclear industry has proven itself very durable despite tremendous challenges," Rowe

(Continued on Page 9)

Construction Update for Plant Vogtle Units 3 & 4

After hitting various bumps in the road, the design for the new Westinghouse AP-1000 reactor is approaching approval by the Nuclear Regulatory Commission. But if the schedule slips much further, it seems less likely that the Southern Company could install planned new reactors of this type, Vogtle 3 and 4, on schedule in 2016 and 2017. Until recently the two reactors had been cast as the leaders of an anticipated "nuclear renaissance." But an end game of sorts is developing. Southern has dug two enormous holes in the ground at its site near Augusta, Ga., adjacent to its existing Vogtle 1 and 2 reactors. It has created a tunnel to bring in cooling water from the Savannah River and constructed a building in which it will assemble modules, among other preparatory steps. But Southern does not want to start safety-related work until the Westinghouse design is approved by the commission.

The reason is that under a licensing reform package approved in the 1990s, the company can get a single license from the commission to both build and operate the plant if it uses a preapproved design. In contrast, reactors built in the 1960s, '70s and '80s obtained construction permits and then, as their plants approached completion, went back and sought permits to run them. Sometimes that resulted in long delays and orders for changes in parts that had already been made. The companies that built the 104 reactors now operating in the United States thought they could save time by having the design period overlap with the construction period, but the result was cost overruns. Sometimes teams of designers were poorly coordinated and tried to put two pieces of equipment in the same spot. Sometimes the builders installed equipment and the commission decided afterward that it would not meet safety requirements. Southern had anticipated that approval of the design would come this summer or fall but now is hoping that it will happen by the end of the year. The staff of the Nuclear Regulatory Commission has on several occasions asked for more information from Westinghouse about the design. As of this writing, the company has given answers and the commission's staff is digesting the information; it has not said when it expects to issue an approval. As time grew shorter, Southern's law firm, Balch & Bingham, submitted a "white paper" to the Nuclear Regulatory Commission in May pressing the agency about the earliest date that a license could be issued. Approval of the design for the AP-1000 will take the form of a new federal rule, and such rules normally takes effect 30 days after they are approved by the commission. The lawyers are arguing that once the commission has given its approval, there is no need to wait 30 days before allowing Southern to build.

Representative Edward J. Markey, Democrat of Massachusetts, who might be called a hawk on nuclear safety issues, has sent a letter to the chairman of the commission, Gregory B. Jaczko, urging him "not to divert commission staff or other resources from their responsibilities addressing real safety concerns" so Southern could start work a few weeks earlier. The commission staff may need the time to make final adjustments to the rule, he wrote. Mr. Markey has been arguing that the commission should pay more attention to a dissenting engineer within the agency who says the containment structure for the AP-1000 is not safe because a crucial structure may be brittle. Meanwhile, Mr. Jaczko, testifying on Tuesday before the Senate Committee on Environment and Public Works about the schedule for new rules after the Fukushima accident on March 11 in Japan, gave another reason why Vogtle might be delayed. He wants the commissioners to focus on deciding within 90 days whether to accept recommendations from a task force that studied the accident's implications for American reactors. But a majority of the commission's members say that some of the recommendations need a lot more study. Without a prompt decision, Mr. Jaczko said, "you delay and create uncertainty and pretty soon people are afraid to invest." "In my opinion, it could create delay," he said.

Southern says it is still confident of its schedule. If it is wrong, the bulldozers will have finished their work, the concrete mixers will be ready to start and the project will still be awaiting regulatory approval.

Public Utility Commission of Texas Approves Merger of Exelon and Constellation Energy

CHICAGO AND BALTIMORE (Aug. 3, 2011) – The Public Utility Commission of Texas (PUCT) today approved the merger of Exelon Corporation (NYSE: EXC) and Constellation Energy (NYSE: CEG). The companies submitted their joint application to the PUCT on May 17. “We are pleased that the PUCT has approved our application,” said Exelon President and COO Christopher M. Crane. “This is a key step toward completing the merger, and we remain on track to do so in the first quarter of 2012.”

“Because Exelon and Constellation both operate in Texas, securing the PUCT’s approval was an important step in completing our merger,” said Constellation Chairman and CEO Mayo A. Shattuck III. “We will remain focused on obtaining the remaining federal and state regulatory approvals and seeing the merger through to completion.” Exelon and Constellation both own electric generation facilities that offer electricity for sale in Texas, and Constellation markets power and gas in the state.

In addition to their filing with the PUCT, Exelon and Constellation made other regulatory filings in support of their proposed merger, including with the Federal Energy Regulatory Commission, the Nuclear Regulatory Commission, the Maryland Public Service Commission and the New York State Public Service Commission. The companies plan to seek shareholder approval for the transaction in the third quarter of 2011. The Exelon-Constellation merger will combine Exelon’s environmentally advantaged generation fleet with Constellation Energy’s industry-leading customer-facing businesses. The companies announced their intent to merge on April 28.

Exelon 'Not in Any Panic' Over Nuclear Regulations (Continued from Page 3)

economics of these plants," he said. The lens on the nuclear industry is just one of several balls Exelon is juggling on the regulatory front. The company is seeking the approval of several regulatory bodies to acquire Baltimore-based Constellation Energy Group Inc. for $7.9 billion in stock and is expected to close next quarter on a deal to acquire two gas-fired power plants in Granbury, Texas for $305 million. At the same time, Exelon signed a partnership agreement July 13 with Electric Transmission America to build a 420-mile high voltage transmission line from Northern Illinois to Ohio that would mean a $1.1 billion investment from Commonwealth Edison/Exelon and is expecting a Federal Energy Regulatory Commission ruling on that project by October.

Because of its largely low-emission generation fleet, Exelon has been fighting hard to see U.S. Environmental Protection Agency regulations limiting hazardous air pollutants move forward. Basing their estimates on the financial impact that the terrorist attacks of Sept. 11, 2001 had on the nuclear industry, analysts say EPA regulations stand to have a far greater impact for coal plant operators than nuclear regulations would have for companies like Exelon. "With the challenges ahead for the country's oldest and dirtiest coal plants, I would rather have the challenges of Exelon's nuclear fleet any day," Rowe said. The upgrades recommended in the report would have nuclear plant owners upgrading protections against power losses, earthquakes and floods but Exelon said that those upgrades would mostly mean one-time largely insignificant costs to Exelon spread out over many years.

Environmentalist and nuclear watchdog groups had urged the NRC panel to recommend that fuel stored in cooling ponds be moved to dry casks -- a method the nuclear industry only resorts to today when pools run out of room but that watchdog groups say is safer in the case of a natural disaster. The panel did not make that recommendation.

Exelon said it was too soon to put a cost estimate on what new regulations could mean to its bottom line. A public hearing is scheduled for Thursday and the NRC expects to issue a final report in about six months. Any regulatory changes would need to be adopted by the commission. Hugh Wynne, senior research analyst at Sanford C. Bernstein & Co., said Exelon sidestepped a potentially costly regulatory burden. He estimated that the cost for Exelon to move its spent fuel into dry cask storage overnight would be nearly somewhere between $723 million and $969 million, which they would likely seek to recover from the Department of Energy in a long and costly legal battle. A fund established in 1982 specifically to pay the costs of removing spent fuel from cooling pools at nuclear plants across the country and storing them at Yucca Mountain in Nevada remains untouched. The $25 billion fund, whose contributions come from utility ratepayers who receive power from nuclear plants, continues to grow, but cannot be used to pay for the costs of transferring fuel into dry casks. The Blue Ribbon Commission may recommend that spent nuclear fuel be move into dry cask storage, but in that case, said Wynne, the cost would likely be borne by the DOE.

- Chicago Tribune, 7/27/11

Exelon CEO Says Nation Needs Nuclear Power, But Cites Economic Challenges to New Build

said. "Despite not meeting my test for new build right now, nuclear energy presents a challenge and an opportunity, and remains, in my view, a career of choice for bright, talented people."

Key Note Speaker John W. Rowe, Chairman and Chief Executive Officer, Exelon Corporation spoke at the ANS Utility Working Conference in Hollywood, FL, August 14-17, 2011. Mr. Rowe has led Exelon Corp. since its formation in 2000 through the merger of PECO Energy and the parent of Commonwealth Edison. His prior positions include CEO of New England Electric System and CEO of Central Maine Power Company. He is a past chairman of both the Nuclear Energy Institute and the Edison Electric Institute. Mr. Rower serves as a member of the Secretary of Energy's Blue Ribbon Commission on America's Nuclear Future and various boards of directors. In both 2008 and 2009, Institutional Investor, named Mr. Rowe the best electric utility CEO in America.

ANS Utility Working Conference— Aug., 2011

NWI News Board

- Bill Cheever and Abdel-Fattah Ragab have been supporting EPU by providing engineering and project management support.
- Ernie Harkness has been supporting Entergy's Nuclear Safety Review Board and CENG's Nine Mile Station ire-integration planning effort.
- Richard Miller supported PPL Susquehanna's corrective action program enhancements.
- Frank Tsakeres and Bill McNeill have been supporting Exelon Nuclear Partner's training program development.
- Terry Johnson and Mike Gettle assisted Entergy's Indian Point Energy Center in Nuclear Oversight.
- Mike Gettle is supporting Progress Energy's Robinson Station in training accreditation preparations for their operations training programs.
- Tim Bostwick has been supporting Performance Improvement initiatives and CAP recovery at Progress Energy's Robinson Station
- Paul Kirker and Marv Engen have been assisting Entergy's Grand Gulf Station in Nuclear Oversight.
- Steve Telford and Paul Kirker have been assisting Entergy's Grand Gulf Station in Work Management areas.
- Sam Newton has been supporting mid-cycle reviews at Duke's McGuire and Millstone Stations.
- Rick Westcott has been supporting both Entergy's Palisades Station in Nuclear Oversight and OPPD's Ft. Calhoun Station in training accreditation preparations.
- Dan Slater is assisting APS's Palo Verde (PVNGS) by providing XML technical support for the procedure upgrade project.

We wish to express special thanks to the following clients for recently making NWI a preferred full services company:

- **APS's Palo Verde Nuclear Station**
- **CENG's Nine Mile Nuclear Generating Plant**
- **Duke's Mcguire and Millstone Stations**
- **Entergy's Grand Gulf, Indian Point, Palisades and Fitzpatrick Stations**
- **Exelon Nuclear Partners**
- **OPPD's Fort Calhoun Station**
- **Progress Energy's Robinson Nuclear Plant**
- **Xcel Energy's Monticello and Prairie Island Plants**

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