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Review of the NRC's Near-Term Task Force Recommendations for Enhancing Reactor Safety in the 21st Century

Witnesses The Honorable Gregory Jaczko Chairman, Nuclear Regulatory Commission The Honorable Kristine Svinicki Commissioner, Nuclear Regulatory Commission The Honorable George Apostolakis Commissioner, Nuclear Regulatory Commission The Honorable William Magwood IV Commissioner, Nuclear Regulatory Commission The Honorable William Ostendorff Commissioner, Nuclear Regulatory Commission

Subcommittee Members Present Thomas Carper (D-DE), Chairman John Barrasso (R-WY), Ranking Member Bernard Sanders (I-VT) Lamar Alexander (R-TN) Frank Lautenberg (D-NJ) Mike Johanns (R-NE) Jeff Sessions (R-AL)

Full Committee Members Present Barbara Boxer (D-CA), Chairwoman James Inhofe (R-OK), Ranking Member Tom Udall (D-NM) John Boozman (R-AR)

The Senate Committee on Environment and Public Works and its Subcommittee on Clean Air and Nuclear Safety held a joint hearing on August 2, 2011 regarding the Nuclear Regulatory Commission's (NRC) Near-Term Task Force recommendations for enhancing nuclear reactor safety in the future. In the aftermath of the earthquake and tsunami that caused power outages, explosions, core meltdowns, radiation leaks and the ultimate destruction of several nuclear reactors at Fukushima Dai-ichii nuclear power plant in Japan, the Task Force was established to conduct a review of the NRC's processes and regulations and provide recommendations to the NRC's regulatory system. The Task Force stated that the Fukushima scenario, a meltdown triggered by a tsunami, is unlikely to happen in the U.S. but provided 12 recommendations to improve the NRC regulatory system. Some of the recommendations propose that the NRC require licensees to reevaluate design-basis seismic and flooding protection of structures, enhance spent fuel pool capabilities, upgrade capabilities to prevent seismically induced fire and floods, and strengthen onsite emergency response capabilities.

Full Committee Chairwoman Barbara Boxer (D-CA) highlighted in her opening statement that she has told the NRC in the past to "heed the wakeup call [of Fukushima] and reevaluate the safety and security of nuclear power plants in the United States, especially when faced with extreme natural disasters such as earthquakes and flooding." She said she would like the Task Force recommendations implemented as soon as possible and hopes that the NRC will take no longer than 90 days to implement. Full Committee Ranking Member James Inhofe (R-OK) said in his testimony that he believes the NRC needs to take time to learn lessons from the Fukushima disaster. The NRC should focus its attention to solving safety weaknesses rather than "redesigning a regulatory framework that has served this country well," he said. Inhofe stated that there are many facts still unknown about the accident but concluded that the lessons learned and any regulatory changes made need to maximize the safety benefits.

Subcommittee Chairman Thomas Carper (D-DE) stressed and Tom Udall (D-NM) agreed that safety must be the U.S.'s top priority. Carper stated that "some of the task force recommendations are common sense and should be implemented soon." He hopes that stakeholders' opinions and public reactions are taken into account before moving forward with any recommendation, however he said he would be disappointed if nothing is in effect "six months or a year down the road." Subcommittee Ranking Member John Barrasso (R-WY) said he believes the current regulatory framework has served the public well. He emphasized that the regulatory framework is not broken and the Task Force report seems to be loaded with recommendations to overhaul the U.S. system of oversight and safety.

Bernard Sanders (I-VT) and Frank Lautenberg (D-NJ) concurred that NRC's job is to make America's nuclear power plants as safe as possible and that the NRC should act on these recommendations quickly. Lamar Alexander (R-TN) stated that the U.S. has an aging nuclear fleet and needs to build new nuclear reactors to continue to provide citizens with "clean, reliable electricity." Mike Johanns (R-NE) concurred with Alexander but was worried that the industry can shut down over time if the U.S. cannot approve the construction of new plants and if safety issues are not dealt with in a cost effective way. John Boozman (R-AR) stated that the NRC needs to implement lessons learned from Fukushima for continuation of safety in the short and long term. Jeff Sessions (R-AL) said that the Task Force provided a good starting point to improve safety but the NRC cannot delay in implementing the recommendations because "delays are cost."

Chairman of the Nuclear Regulatory Commission, Gregory Jaczko, provided in his testimony an overview of the Task Force report. He said that the NRC has not reached a decision about how to proceed with the Task Force recommendations but that the NRC is committed to respond to these recommendations in a timely manner. Kristine Svinicki, George Apostolakis, William Magwood, and William Ostendorff agreed that the recommendations should go through public, stakeholder, and professional review for further comments and considerations. Svinicki said that the NRC should be allowed to go through a methodical process so that the final response is not shortchanged. Apostolakis commented that the Fukushima event was not "unthinkable" due to the insufficient use of historical tsunami records when determining the design basis of Fukushima. He concluded that the Tack Force recommendations are important and three months should be sufficient time to achieve the report's objectives.

Boxer asked the panel if most of the 12 recommendations by the Task Force can be implemented within a year. All agreed except Svinicki who said she needed more information. Boxer had a series of questions for Svinicki who continued to push back against a swift implementation of the recommendations. Svinicki told the committee she would like the input of the NRC senior officials and stakeholders before making any decisions. Boxer pointed out that Jaczko is initiating her request of acquiring additional opinions and Boxer insisted to know if the 12 recommendations can be decided upon within 90 days. Svinicki continued that she does not know if all 12 can be decided upon in that time. After listening to her answer, Boxer told her, "Your responses disturb me."

Boxer then asked the panel of witnesses if the U.S. needs to move forward with harden vent designs in boiling water reactors mark 1 and 2 containments as recommended by the Task Force. Mark 1 is a drywell containment which resembles an inverted lightbulb, and mark 2 is a drywell containment forming a truncated cone on a concrete slab. Jaczko and Apostolakis agreed that the U.S. should move forward with installing these vents. Carper was interested in the recommendations that could be implemented right away. Ostendorff answered that six of the 12 recommendations can be put into effect right away. Jaczko added that four of the 12 recommendations by the Task Force are long-term recommendations.

Inhofe and Sessions had many questions regarding the emergency powers Jaczko assumed during the Fukushima event. Inhofe wanted to know whether the commission has received a report from Jaczko during which he implemented the use of his emergency authority in the aftermath of the Fukushima disaster. Svinicki, Apostolakis, Magwood, and Ostendorff have not received the report nor have they received word that Jaczko has ceased using emergency authority. Jaczko said he is no longer using emergency authority and believes that under statute, he has provided the necessary information detailing the powers he assumed after the emergency powers declaration and acted consistently under the statute.

Lautenberg asked the commissioners when the U.S. will find out all the details of the mishaps that occurred at the Fukushima Daiichii power plant. Jaczko stated that it could take years because the plant and the reactors need to be decontaminated before extensive studies can take place. Lautenberg was interested in whether moving spent fuel from pools to dry casks should be a required action or not. Jaczko replied that it is a short term recommendation but a long term analysis would need to be performed in order to determine whether more fuel should be stored in pools or dry casks.

Boxer told the panel that they will be meeting every 90 days to ensure the committee "knows what [the NRC is] doing" and guarantee that the Task Force recommendations are being implemented.