WRITTEN STATEMENT

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

AND THE

SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY

UNITED STATES SENATE

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Chairman Boxer, Ranking Member Inhofe, Chairman Carper, Ranking Member Barrasso, and Members of the Committee, my colleagues and I are honored to appear before you today on behalf of the United States Nuclear Regulatory Commission (NRC). Having appeared before you in June as a nominee, I want to thank you for your support during that process. I look forward to today's hearing – my first before you as NRC Chairman.

Two months into my tenure, I have met many dedicated professionals through meetings and briefings on the issues currently before the Agency. I have informally walked the floors of our headquarters building; eaten with our personnel in the cafeteria, and I visited our four regional offices. I am quite impressed with the NRC staff and their commitment to the Agency's important mission of protecting the public's safety and security.

I also appreciate the warm welcome that I have received from my colleagues on the Commission. I am meeting with each Commissioner regularly. We share perspectives on major issues facing the agency, and benefit from each other's expertise. I look forward to a continued collegial relationship with them.

I am committed to serving on the NRC with the attributes that I consider important to good governance – openness, efficiency and transparency. I will make a strong commitment to

collegiality at all levels. An agency endowed with the public trust such as the NRC requires a respectful working environment to assure its integrity.

Today I would like to update you on the NRC's implementation of safety enhancements based on our review of the Fukushima Dai-ichi nuclear accident.

With everything that we have assessed to date, the Commission continues to believe that there is no imminent risk from continued operation of existing U.S. nuclear power plants. At the same time, the NRC's assessment of insights from the events at Fukushima Dai-ichi led us to conclude that additional requirements should be imposed on licensees to increase the capability of nuclear power plants to mitigate the effects of beyond-design-basis extreme natural phenomena.

The Commission has approved the staff's prioritization of the recommendations of the Near-Term Task Force ("Task Force") into three categories, or tiers. Tier 1 consists of actions to be taken without delay, and these actions are underway. Tier 2 is the next set of actions that can be initiated as soon as staff resources become available and pertinent information is gathered and analyzed. Tier 3 recommendations require that the staff conduct further study or undertake shorter-term actions first.

On March 9, the Commission authorized the NRC staff to issue three immediately effective Orders to U.S. commercial nuclear reactors as part of its Tier 1 actions. These Orders address some of the recommendations from the agency's Task Force Report issued in July 2011, that the NRC determined should and could be implemented without delay. The Orders, issued by the staff on March 12, require several things:

1) Licensees must develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis extreme natural event.
2) Licensees with BWR Mark I and Mark II containments must have a reliable hardened vent to remove decay heat and maintain control of containment

pressure within acceptable limits following events that result in the loss of active containment heat removal capability or prolonged station blackout.

3) All operating reactors must have a reliable indication of the water level in spent fuel storage pools.

For all three of these Orders, licensees are required to submit their plans for implementing these requirements to the NRC by February 28, 2013, and complete full implementation no later than two refueling cycles after submittal of a licensee's plan or December 31, 2016, whichever comes first. Additionally, licensees are required to provide periodic status reports so that the staff can monitor their progress in implementing the orders and take prompt and appropriate regulatory action, if necessary.

On May 31, 2012, the NRC staff issued draft guidance related to implementation of all three Orders for a 30-day public comment period. After considering comments received, the NRC staff issued final implementation guidance for all three Orders on August 29, 2012. These final guidance documents provide details on acceptable approaches for complying with the requirements of the Orders.

In addition to the three Orders issued on March 12, licensees were also issued a "request for information" that includes the following:

1) Licensees were asked to perform, and provide the results of, a reevaluation of the seismic and flooding hazards at their sites using current NRC requirements and guidance, and identify actions that are planned to address any vulnerabilities. The results will determine whether additional regulatory actions are necessary.

2) Licensees were requested to develop a methodology and acceptance criteria and perform seismic and flooding walkdowns. We expect that performance deficiencies identified during the walkdowns will be addressed by each site's corrective action program. Licensees were asked to confirm that they will be

using the walkdown procedures jointly developed by the NRC and industry or provide alternative, plant-specific procedures.

3) Licensees were requested to assess the ability of their current emergency communications to perform under conditions of onsite and offsite damage and prolonged loss of alternating current electrical power. Licensees also were requested to assess the plant staffing levels needed to respond to a large-scale natural event and to implement strategies contained in the emergency plan.

The remaining near-term recommendations comprise two rulemakings addressing station blackout and integration of emergency procedures. The Commission directed the use of an Advance Notice of Proposed Rulemaking for the station blackout rulemaking to allow for early stakeholder involvement and formal comments. The Commission also designated the station blackout rulemaking as a high-priority activity with a goal of completion within 24-30 months from October 2011. The emergency procedures integration rulemaking also used an Advance Notice of Proposed Rulemaking to solicit early stakeholder input. These notices were issued in March and April respectively.

Going forward, we will continue stakeholder interaction to support any necessary guidance development activity for the requests for information. Beyond that, we will continue our ongoing efforts on the highest priority, near-term rulemakings.

Regarding Tier 2 recommendations, we anticipate beginning that work once we collect information that is required from Tier 1 activities in order to address Tier 2 recommendations, and when we are able to reallocate critical staff resources previously devoted to Tier 1 activities. For example, the review of other external hazards, such as high winds from tornados and hurricanes, will begin when resources currently being applied to the flood hazards assessments become available.

On July 13, 2012, the NRC staff presented the Commission with its plans for addressing each of the Tier 3 recommendations. On August 24, 2012, the Commission directed the NRC staff to compare practices for hydrogen control for plants in other countries with those of U.S. plants. The staff was also directed to compare practices for spent fuel transfer from pools to dry cask storage in other countries with practices in the U.S. The results from these comparisons will be provided to the Commission when the staff provides their recommendations for resolving the Tier 3 activities.

We are making good progress on these issues. My colleagues on the Commission and I look forward to continuing to work with the NRC staff as agency works diligently to address the remaining lessons-learned from Japan.

The NRC staff has done an outstanding job of not only making good progress on lessons-learned from Japan, but also on continuing to ensure the safe and secure operation of all our existing licensed facilities. The Commission never loses sight of the fact that our effectiveness as a safety and security regulator depends first and foremost on the staff's hard work and dedication.

While many licensees performed well during the past year, there are currently four nuclear reactors and one fuel facility that are in an extended shutdown mode. One of those nuclear reactors, the Fort Calhoun Station, is currently in a shutdown condition due to significant performance concerns. Fort Calhoun shut down for a scheduled refueling outage in April 2011 and remained offline because of extensive flooding from the Missouri River. The licensee is addressing flood damage, technical issues, and performance problems. The NRC increased its regulatory oversight of the plant in December 2011 and established a special oversight panel to coordinate NRC regulatory activities. NRC approval is required before the licensee will be allowed to restart the reactor.

Another reactor, Crystal River Three, has been shut down since September 2009 while the licensee continues to address issues with the concrete in its containment structure. NRC approval is required before the licensee will be allowed to restart the reactor.

In addition, the two units at the San Onofre Nuclear Generating Station have been shut down since the beginning of the year due to problems with tube wear in their new steam generators. On March 27th, the NRC issued a Confirmatory Action Letter documenting actions that Southern California Edison officials have agreed to take related to unusual wear on steam generator tubes prior to restarting both units.

Honeywell International, Inc., the licensee for a uranium hexafluoride conversion facility in southern Illinois, shut down the fuel facility for a scheduled maintenance outage in May 2012, and the facility has remained shutdown to address issues associated with the facility's emergency response plan. The NRC staff approved Honeywell's request to restart limited operations to transfer the existing inventory of uranium hexafluoride into certified cylinders for more secure storage of the material. In the longer term, Honeywell anticipates making plant modifications. Consideration is also being given to making changes to its emergency response plan, and updating procedures to address the issues associated with its emergency response plan. NRC will verify that Honeywell has provided reasonable assurance of public health and safety before allowing it to resume production.

I also want to update you regarding Waste Confidence. Recently, the U.S. Court of Appeals for the District of Columbia Circuit found that the NRC had violated the National Environmental Policy Act in issuing its 2010 update to the Waste Confidence Decision and accompanying Temporary Storage Rule. The court vacated both the Decision and the Rule, and remanded the case for further proceedings consistent with the court's opinion. On August 7, 2012, the Commission issued an Order, in response to petitions we received following the court's decision, stating that we will not issue licenses dependent upon the Waste Confidence Decision or the Temporary Storage Rule until the court's remand is appropriately addressed.

This determination extends just to *final* license issuance; all licensing reviews by NRC staff and proceedings will continue to move forward.

On September 6, 2012, the Commission directed the NRC staff to develop, within the next 24 months, an environmental impact statement, a revised waste confidence decision, and a rule on the temporary storage of spent nuclear fuel. As we assured petitioners in the Order, and in our direction to the NRC staff, the public will be afforded opportunities to comment on these actions.

Transparency and openness are part of our formal NRC organizational values and they are integral guiding principles in everything we do, both internally and externally. After the challenges we have faced over the past year, and the bright spotlight that has been shined on nuclear regulation, nuclear safety, and nuclear power plants by the Congress, the media, and the public, the NRC continues to be accessible and open to make sure that all of our stakeholders understand what we are doing and why we are doing it. One of my goals as Chairman is to promote better communication with the public. An independent regulator like the NRC cannot ensure public trust and instill public confidence unless we communicate well. I emphasize this every time I talk with the staff. We need to ensure that we communicate effectively with the public, so that the public can have confidence in our work.

By no means does my testimony cover the full breadth of the agency's wide-ranging activities. We have many important issues on our plate right now -- both internally and externally -- ensuring the safety and security of our nation's nuclear facilities and materials. We are committed to prudently managing the resources entrusted to us by the American people, taking full advantage of all the talents and expertise that our diverse team brings to the table, and keeping our focus - first and foremost - on public health, safety, and security.

As we look forward, the agency expects to meet new challenges. We are confident that the NRC will continue to ensure the safe and secure operation of the existing licensed facilities,

and the safe and secure uses of radioactive materials, while also ensuring the safe and secure construction and operation of new nuclear power plants, possibly including small modular reactors and other nuclear facilities.

Chairman Boxer, Ranking Member Inhofe, Chairman Carper, Ranking Member Barrasso, and Members of the Committee, this concludes my formal testimony today. Thank you for the opportunity to appear before you. My colleagues and I would be pleased to respond to any questions you may have.