



COMMISSIONER

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

May 2, 2019

The Honorable Thomas R. Carper
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Senator Carper:

I am responding to your April 1, 2019 letter, requesting information about the Mitigation of Beyond-Design-Basis Events rulemaking. Chairman Svinicki sent a letter on behalf of the Commission that provides responses to specific factual questions included in your letter. I write separately from my colleagues to provide my individual views on the final rule.

In the aftermath of the Fukushima accident, the Commission issued a March 2012 order requiring nuclear power plants to have mitigating strategies to cope with severe, beyond-design-basis events. New FLEX equipment, including generators, pumps, and hoses, was stationed at all of the nuclear power plants across the country to provide additional safety capabilities. Meanwhile, licensees and the NRC staff embarked on a multi-year effort using the latest science and modern methods to determine the present-day flooding and earthquake hazards for the nation's nuclear power plants. The final post-Fukushima rule was supposed to be the culmination of those two parallel efforts, requiring the FLEX equipment to be reasonably protected from the reevaluated hazards.

But under the final rule written by the Commission majority, the FLEX equipment at nuclear power plants is not required to be reasonably protected from the up-to-date flooding and

earthquake hazards. The rule allows licensees to ignore these reevaluated hazards with their FLEX strategies and only be prepared for the old, outdated hazards.

This was a complete U-turn for NRC. In the years leading up to the decision on the draft final rule, the Commission had repeatedly and unanimously found that updated safety standards addressing the reevaluated hazards were necessary to adequately protect the public. None of the comments submitted on the proposed rule – from industry, states, public interest groups, or concerned citizens – questioned the need for the commonsense requirement to protect the FLEX equipment from the actual natural hazards at the site. Moreover, when the rule came up in conversations with stakeholders, including the Nuclear Energy Institute, the discussions focused on the anticipated implementation of the provisions presented by the NRC staff in the draft final rule and when those provisions would take effect. No stakeholder ever indicated to me that they favored removing the requirement to reasonably protect the FLEX equipment from the reevaluated hazards.

I strongly believe that the requirements contained in the draft final rule are necessary to adequately protect public health and safety. There is broad agreement that the new FLEX equipment at nuclear power plants is the most significant post-Fukushima safety improvement. But to enhance safety, the equipment must work when called upon. And that requires protecting it from entirely predictable natural hazards. Failing to protect the equipment from the real earthquake and flooding hazards makes no sense. NRC also needs to make sure that plants are ready and able to use the equipment if it is needed. That requires adequate licensee communications and staffing, as well as routine exercises and drills to practice using the FLEX equipment to implement the mitigating strategies. But the final rule written by the majority of the Commission dropped all of these commonsense and non-controversial proposed requirements.

While it is true that NRC can require plant-specific modifications based on the reevaluated flooding and earthquake hazards, those potential plant-specific modifications were never intended to take the place of this post-Fukushima rule. They are two separate sets of requirements. And the possibility of requiring plant-specific modifications on a case-by case basis is not a reason to leave all of the FLEX equipment nation-wide vulnerable to the actual natural hazards that could occur at nuclear power plants.

As you point out in your letter, the natural hazards facing nuclear power plants are not static. We know from the Fourth National Climate Assessment and other authoritative climate reports that climate change will impact some of these hazards, such as flooding, hurricanes, and drought. NRC's safety standards need to account for the changing frequency, intensity, and duration of these events. But this rule instead allows licensees to rely on outdated flood hazard estimates, most of which were calculated decades ago and are not based on recent scientific studies or data. In my view, that moves NRC in exactly the wrong direction.

The post-Fukushima mitigating strategies rule was always intended to be the agency's response to several key Near-Term Task Force recommendations. Rather than following through on these planned safety improvements, critical aspects of those recommendations were simply left unaddressed by the rule. As a result, the rule fails to confront a fundamental lesson of the Fukushima accident – that nuclear power plants must be fully prepared for the natural hazards that could threaten their safe operation. Unfortunately, the final rule approved by the Commission does not ensure that nuclear power plants will be adequately protected from the most severe events they may experience today or in the future.

Thank you for your interest in this important nuclear safety issue. Please feel free to contact me at (301) 415-1839, if you have any questions or need additional information.

Sincerely,



Jeff Baran

cc: Senator John Barrasso

Identical letter sent to:

The Honorable Thomas R. Carper
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510
cc: Senator John Barrasso

The Honorable Sheldon Whitehouse
Ranking Member
Subcommittee on Clean Air and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, DC 20510
cc: Senator Mike Braun