

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: Commissioner Burns
SUBJECT: SECY-16-0142: DRAFT FINAL RULE—MITIGATION OF BEYOND-DESIGN-BASIS EVENTS (RIN 3150-AJ49)

Approved X Disapproved ___ Abstain ___ Not Participating ___

COMMENTS: Below X Attached X None ___

The attached comments supplement my vote dated June 26, 2017.

Entered in "STARS"
Yes X No ___



SIGNATURE

3 December 2018
DATE

**Commissioner Burns's Supplemental Comments on SECY-16-0142
Draft Final Rule—Mitigation of Beyond-Design-Basis Events (RIN 3150-AJ49)**

Since I issued my original vote on this draft final rulemaking package in June 2017, the NRC staff and the industry have progressed to complete most of the actions addressed by the rule and have made substantial progress on the remaining issues. Given the recent completion of voting forming a majority position that would strip many of the provisions from the final rule which the Commission had previously approved in the proposed rule, I am compelled to supplement my original vote on this matter.

The changes to the final rule supported by the majority will, in my view, significantly weaken what will be the agency's most enduring action as a result of lessons learned from the Fukushima Daiichi accident. In doing so, the Commission will have systematically and inexplicably unraveled a framework for addressing beyond-design-basis external events carefully crafted as a collaborative effort between the NRC staff and our external stakeholders over the past seven and a half years.

I am chiefly concerned with the position the majority has taken with respect to the reevaluated hazard analyses performed by licensees. This position is particularly disconcerting given that the accident at Fukushima was a direct result of the operator and regulator failing to take action to account for new scientific knowledge related to natural hazards, especially flooding hazards. In this regard, I believe that the majority has undermined the Commission's past position on these issues, which has been made clear on several occasions during the Commission's review of the staff's post-Fukushima actions. For instance, in its March 2015 Staff Requirements Memorandum (SRM) on COMSECY-14-0037, the Commission approved the staff's recommendation "that licensees for operating nuclear power plants need to address the reevaluated flooding hazards within their mitigation strategies for beyond-design-basis external events." The staff was explicit in COMSECY-14-0037 about what it was asking of the Commission with this recommendation:

The NRC staff is asking the Commission to support the planned approach by affirming that the MBDBE rulemaking needs to require mitigating strategies that are able to address the reevaluated flooding hazards developed in response to the § 50.54(f) letters in order to ensure reasonable assurance of adequate protection of the public health and safety.

The staff followed the Commission's unequivocal direction on COMSECY14-0037 when it presented the Mitigation of Beyond-Design Basis Events proposed rulemaking to the Commission in April 2015 in SECY-15-0065. In the draft proposed rule, the staff clearly stated that the proposed rulemaking would apply to power reactor applicants and licensees and include proposed "requirements for the reasonable protection of mitigation equipment for beyond-design-basis external events that reflect the reevaluated hazards determined through regulatory efforts stemming from the 10 CFR 50.54(f) request issued on March 12, 2012." In its August 2015 Staff Requirements Memorandum on SECY-15-0065, the Commission unanimously approved publication of the draft proposed rule and noted only two exceptions it was taking to the staff's proposals, neither of which involved the need for mitigation strategies to reflect the reevaluated hazards.

Recall that, in the SRM for SECY-11-0124, "Recommended Actions to be Taken Without Delay from the Near-Term Task Force Report," the Commission approved the staff's intent to issue a request for information to all operating reactor licensees to address, among other things,

reevaluations of seismic and flooding hazards in accordance with Near-Term Task Force (NTTF) Recommendation 2.1. The resolution of NTTF Recommendation 2.1 involved a two-phased approach. The request for information, issued under the provisions of 10 CFR 50.54(f) on March 12, 2012, (50.54(f) letter) states:

A hazard evaluation consistent with Recommendation 2.1 will be implemented in two phases as follows:

- Phase 1: Issue 10 CFR 50.54(f) letters to all licensees to request that they reevaluate the seismic and flooding hazards at their sites using updated seismic and flooding hazard information and present-day regulatory guidance and methodologies and, if necessary, to request they perform a risk evaluation. The evaluations associated with the requested information in this letter do not revise the design basis of the plant. This letter implements Phase 1.
- Phase 2: Based upon the results of Phase 1, the NRC staff will determine whether additional regulatory actions are necessary (e.g., update the design basis and SSCs important to safety) to provide additional protection against the updated hazards.

As stated further in Enclosure 2 to the 50.54(f) letter, part of the purpose of the request for information was to "collect information to facilitate NRC's determination if there is a need to update the design basis and systems, structure, and components (SSCs) important to safety to protect against the updated hazards at operating reactor sites."

As former Commissioner Apostolakis pointed out in his 2011 vote on the NTTF Report, "there is growing evidence that the historical record of tsunamis had not been used properly to determine the design basis at Fukushima Daiichi and, consequently, the protection of the plants was not sufficient." In the United States, there exists incontrovertible evidence that for some plants their current design bases do not address a flood hazard identified by the licensees' own analyses. Had the final rule been approved as proposed by the staff, the Commission's carefully crafted strategy would have dealt with this situation appropriately and effectively by requiring that the mitigation strategies for all sites be able to address the reevaluated hazards developed in response to the § 50.54(f) letters as a matter of adequate protection of the public health and safety. For plants with the most extreme exceedances from their current design basis, additional actions may have been necessary, but those decisions would only be made once their final flooding and/or seismic evaluations (e.g., integrated assessments or seismic PRAs) were completed. Absent a requirement in the MBDBE final rule to protect the mitigation strategies from the reevaluated hazard, the process for closing out NTTF Recommendation 2.1 and the 50.54(f) letter for all plants will be made much more burdensome for both licensees and the NRC staff and the outcome with respect to protecting plants from beyond-design-basis external events much more uncertain.

In addition, this action calls into question the degree to which the NRC will be able to give credit for the existence of the mitigation strategies in a number of risk-informed regulatory initiatives like adaptation of alternative treatment requirements for SSCs under § 50.69 and risk-informed technical specifications. Licensees are also seeking credit for mitigation strategies in the Reactor Oversight Process and have expressed interest in pursuing credit for use of the strategies in the physical security program. The assessment of the degree to which credit for the mitigation strategies is possible will be much more complex because they will not be required to be protected from the reevaluated hazards.

Moreover, the decision to strip out the final rule requirements for an integrated response capability, as well as requirements for sufficient staffing levels, means of communication, and drills, again ignores primary lessons from the Fukushima Daiichi accident. These requirements were approved by the Commission in the proposed rule, and nothing has occurred in the interceding years to change the need for these requirements to ensure a holistic approach to the response to beyond-design basis accidents.

The decision of the majority to reverse course now, when the lion's share of the actions that would be required under the rule have already been completed by industry, is baffling. It is difficult to understand how the arguments put forth of regulatory over-reach are defensible with anyone who was at the agency when the accident occurred and has followed the activities of the agency, including the decisions made by the Commission, in the intervening years. It is equally baffling that some in the majority should lay the blame on the shoulders of the NRC staff for the perceived misapplication of the backfit rule when the staff was merely following Commission direction in producing this draft final rule.

I would also point out that the majority's position is troubling in two other respects. First, there seems to be a presumption that the orders developed by staff and approved by the Commission in 2012 were a fully informed and complete regulatory solution to the Fukushima Daiichi accident. I do not mean to suggest that the Commission and the staff didn't implement thoughtful and effective solutions given what was known at the time. However, the orders were approved by the Commission just one year after the accident, and significant gaps still remained in the NRC's and industry's knowledge. To now suggest, as the majority has done, that the NRC could not improve upon the requirements of the orders or address these gaps in knowledge through this rulemaking makes little sense to me.

I am also troubled that the majority has chosen to eliminate a substantial number of requirements that were included in the proposed rule for which no adverse public comments were received. Even in response to a specific request by the NRC for "feedback concerning any costs and impacts that licensees would expect to occur" as a result of the proposed requirement that mitigation strategies equipment be reasonably protected from the reevaluated hazards, no commenter suggested that this requirement be removed from the rule. I expect that when the final rule is issued, the diminished version approved by the majority will surprise many of our external stakeholders.

Finally, although I have long supported the NRC's pursuit of a rigorous application of its backfitting regulations and adherence to its Principles of Good Regulation, this pursuit must be rational. In defense of this rulemaking proposal, the staff produced appropriate backfitting and regulatory analyses, which were consistent with previous Commission direction. The majority has decided to reverse these previous Commission decisions and takes issue with the staff's supporting analysis based on nothing more than conclusory statements in Commission votes (unsupported by any analysis presented to the Commission, the staff, or the public) that some of the requirements in the draft final rule are not "necessary" or would not result in a "substantial increase in the overall protection of the public health and safety." Such a step is entirely inconsistent with the principles of clarity, reliability, and openness that are supposed to drive this agency's work.

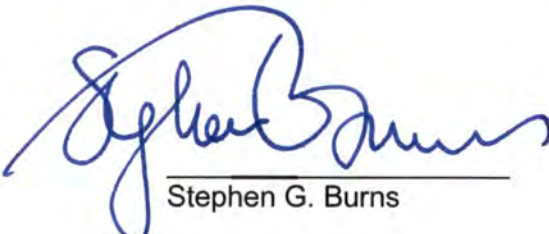
I am disheartened that the NRC staff, the industry, and the public have had to wait nearly two years for the Commission to finalize its action on the staff's draft final rule, only to have it diluted to a bare version that is significantly less cohesive than the staff's proposal and could result in a

substantially less effective response if any nuclear power plant is ever called upon to respond to a beyond-design-basis external event.

In the official report of the National Diet of Japan's Fukushima Nuclear Accident Independent Investigation Commission, Chairman Kiyoshi Kurokawa noted:

The earthquake and tsunami of March 11, 2011 were natural disasters of a magnitude that shocked the entire world. Although triggered by these cataclysmic events, the subsequent accident at the Fukushima Daiichi Nuclear Power Plant cannot be regarded as a natural disaster. It was a profoundly manmade disaster – that could and should have been foreseen and prevented. And its effects could have been mitigated by a more effective human response.

The issuance of the NRC's final rule was meant to be the culmination of the agency's efforts to learn the lessons of the Fukushima Daiichi accident. Given the final form of the rule approved by the majority, it will be difficult for the agency to convince others that it has learned those lessons well.



Stephen G. Burns

3 December 2018