

**Responses to Requests for Information
Senator Inhofe, et al.,
Letter Dated July 15, 2015**

QUESTION 1. The NRC staff actions cited in this letter are inconsistent with Commission direction regarding the use of qualitative factors. How will the Commission ensure that agency staff will adhere to its instructions in the future, on these and any other matters?

ANSWER:

There are multiple means by which the Commission can ensure that the NRC staff adheres to its direction. Specifically, with respect to the use of qualitative factors in the execution of regulatory analysis, the primary means is through its review of staff policy, rulemaking, and information papers. These vehicles provide the staff with an opportunity to present its analyses and recommendations to the Commission on potential regulatory requirements, and, in turn, these papers provide an opportunity for the Commission to assess the staff's work and evaluate how the staff has applied past Commission direction. In some cases, these assessments can result in the Commission giving additional direction to the staff.

Regarding the use of qualitative factors in regulatory analyses, the Commission recently approved the NRC staff's plans for updating guidance regarding the use of qualitative factors to improve the clarity, transparency, and consistency of the agency's regulatory and backfit analyses, and this activity is ongoing. The Commission has not authorized, as part of this updating, any expansion of the consideration of qualitative factors in regulatory and backfit analyses. The Commission specifically directed that the revised guidance should encourage quantifying costs to the extent possible and use of qualitative factors to inform decision making, in limited cases, when quantitative analyses are not possible or practical (i.e., due to lack of

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methodologies or data). As stated in the Commission's direction to the staff, the appropriate weighing of qualitative factors in regulatory decision making ultimately lies with the Commission. As this work is ongoing, the Commission will continue to pay close attention to the staff's conduct of regulatory analyses and provide additional guidance, if necessary.

QUESTION 2. In the Staff Requirements Memorandum [SRM] for SECY 14-0087, the Commission directed the staff to revise guidance regarding the use of qualitative factors and to provide the Commission with a detailed plan and schedule for doing so. However, in the Containment Protection paper, the NRC staff cite NUREG/BR-0058 which is dated September of 2004. This appears to be the same regulatory guide that the Commission directed the staff to update. Please provide a copy of the plan and schedule to update this guidance, and a list of all pending regulatory proposals that continue to rely on this outdated guidance.

ANSWER:

Per Commission direction, the NRC staff is updating its cost-benefit guidance to incorporate lessons learned and feedback provided by licensees, the Nuclear Energy Institute (NEI), the U.S. Government Accountability Office (GAO), and other stakeholders. These improvements are discussed in the cost-benefit update activities described in the staff's paper, SECY-14-0002, "Plan for Updating the U.S. Nuclear Regulatory Commission's Cost-Benefit Guidance," dated January 2, 2014, which includes a two-phase process for updating the NRC's cost estimating procedures. The first phase is currently in progress and is expected to culminate with the release of draft guidance for public comment in November 2015. This phase will consolidate guidance documents, incorporate recommendations from the GAO's 2014 report on the NRC's cost-estimating practices and cost-estimating best practices from the GAO's guide, and revise

guidance on the consideration of qualitative factors in accordance with Commission direction in the SRM for SECY-14-0087. A detailed plan and schedule for developing the draft revised guidance is due to the Commission for information in September 2015. As the NRC staff updates these documents, it will engage the Advisory Committee on Reactor Safeguards. The NRC held its first public meeting on its cost-benefit update activities on July 16, 2015, to discuss implementation of the two-phased approach to revise the cost-benefit guidance, including the preliminary schedule for such work. The NRC will ensure that there are additional opportunities for public input. Until the updated guidance is issued for use, the NRC staff will be applying the improvements in cost estimating and cost-benefit analysis to pending regulatory proposals as each improvement is adopted.

QUESTION 3. If the Commission will no longer require regulatory changes to provide a significant safety improvement in keeping with the Backfit Rule, is there a new threshold for discerning whether proposed regulatory changes are warranted? If so, please provide a description.

ANSWER:

The Commission has not approved a new threshold for discerning whether proposed regulatory changes are warranted. The Backfit Rule remains in effect, including the requirement that backfitting, if not needed for adequate protection or for compliance, must represent a substantial safety improvement that is cost-justified.

QUESTION 4. Does the Commission expect agency staff to continue following the NRC's Safety Goal Policy Statement? If not, what is the new policy?

ANSWER:

Yes, the Commission expects the NRC staff to continue to follow the NRC's Safety Goal Policy Statement.

QUESTION 5: On May 21, 2015, NRC staff testified in a Commission meeting that the staff is considering incorporating the use of qualitative factors into the Reactor Oversight Process, particularly for the significance determination process. Please describe the process and schedule for making such a change including opportunities for public engagement and the Commission's role in decision-making.

ANSWER:

During the May 21, 2015, Commission meeting, the staff informed the Commission of its plans and progress to date to evaluate enhancements to the Reactor Oversight Process (ROP). These activities were approved by the Commission in the staff requirements memorandum (SRM) for COMSECY-14-0030, "Proposed Suspension of the Reactor Oversight Process Self-Assessment for Calendar Year 2014." In that SRM, the Commission approved the staff's proposal to "streamline the Significance Determination Process and establish appropriate timeliness metrics for finalizing inspection findings." The staff completed a Business Process Improvement task that critically examined the Significance Determination Process (SDP) to improve both its efficiency and effectiveness. A number of SDP program enhancements were identified that have already been incorporated into publicly available SDP program documents. As stated during the May 21, 2015, briefing, the staff believes that a more holistic review is needed to examine the approach that the NRC uses in its decision-making for licensee performance deficiencies that are of more than very low risk significance. The ROP is intended to be a risk-informed process – one that incorporates risk insights, where possible and

appropriate, and also includes other decision-making elements such as defense-in-depth and safety margins. Emphasis will remain on quantitative, risk-based analyses when they can be achieved with an acceptable level of uncertainty and an appropriate expenditure of resources. However, there are instances when quantitative analyses might yield inherently uncertain results. There have been instances where emphasis on quantitative analysis has contributed to SDP timeliness challenges and has consumed considerable NRC staff and licensee resources. Therefore, the staff is looking to develop a more integrated, risk-informed method that considers both probabilistic risk assessment insights and engineering judgment.

The staff discussed its plans and progress during a public Commission meeting held on August 6, 2015. In response to that discussion, the Commission provided direction to the staff that it should ensure that individual changes to the ROP are assessed for aggregate impacts to avoid any unintended consequences, and that, as the staff considers its currently proposed revisions to the SDP, they should pilot the revisions and hold public meetings or workshops to clarify their approach to risk-informing the process. The NRC staff intends to discuss the path forward with external stakeholders through public meetings later this year and develop revised program documents, addressing internal and external feedback, in 2016.

In the SRM for COMSECY-14-0030, the Commission also directed, "Upon completing the evaluation of potential improvements, if the staff deems that the collection of changes is significant enough to merit review by the Commission, the staff should seek such review." As such, the staff will seek a Commission decision if it is warranted.

QUESTION 6. The Near-Term Task Force reported shortcomings in the industry's implementation of SAMGs [Severe Accident Management Guidelines]

following Fukushima. Has the industry corrected those flaws that were identified?

ANSWER:

The NTTF report on shortcomings in the industry's implementation of SAMGs was based on the results of an information gathering inspection conducted under Temporary Instruction (TI) 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)," dated April 29, 2011. The NRC does not typically inspect SAMGs because of their status under a voluntary industry initiative; TI 184 was conducted at the request of the task force in order to gather information on the state of readiness of licensees in the United States to respond to an event that could necessitate the use of SAMGs.

Licensees entered the identified shortcomings into their corrective action programs, where the deficiencies are prioritized and corrected based on the safety significance of the deficiencies. Based on the NTTF conclusion that the deficiencies identified would not have made the SAMGs ineffective and on the continuing voluntary nature of SAMGs, the NRC determined that it would not expend resources to verify resolution of these deficiencies. On August 27, the Commission directed the staff to remove the requirements for SAMGs from the proposed rulemaking on mitigation of beyond-design-basis events as the Commission determined that these requirements were not justified.

QUESTION 7. In assessing the safety benefits derived from the Containment Protection paper's Alternative 3, the NRC staff assumed the industry DOES NOT utilize SAWA/SAWM [severe accident water addition/severe accident water management] to comply with Order EA-10-109. However, when assessing the costs of CPRR Alternative 3, the NRC staff assumed the

industry DOES utilize SAWA/SAWM to comply with Order EA-10-109 and thus considered the cost of Alternative 3 to be minimal. Please explain this inconsistency. Is this type of inconsistency common in the NRC's regulatory analyses? If so, please describe the three most recent examples with justifications for using this approach.

ANSWER:

The Commission disapproved the staff's plan to issue a *Federal Register* notice requesting public comments on the draft regulatory basis for the Containment Protection and Release Reduction rulemaking. The Commission instead approved proceeding with Order-EA-13-109 implementation without additional regulatory actions (referred to as Alternative 1 in SECY-15-0085, "Evaluation of the Containment Protection and Release Reduction for Mark I and Mark II Boiling Water Reactors Rulemaking Activities").

QUESTION 8. The NRC's Committee to Review Generic Requirements (CRGR) has a stated mission to: "...recommend either approval or disapproval of the staff's proposed backfits, and to guide and assist the NRC's program offices in implementing the Commission's backfit policy." Describe the CRGR's role in ensuring adherence to the Backfit Rule and the Commission's direction regarding the use of qualitative factors as laid out in SECY-14-0087.

ANSWER:

The CRGR reviews proposed generic backfits that are to be imposed on all power reactors licensed by NRC. The purpose of these reviews is to ensure that such backfits are appropriately justified based on the backfit provisions of applicable NRC regulations and the

Commission's backfit policy. As an advisory committee to the NRC's Executive Director for Operations (EDO), the CRGR's primary responsibilities are to recommend either approval or disapproval of the staff's proposed backfits. The CRGR reviews NRC generic correspondence and regulatory guidance, as well as selected NRC staff guidance related to licensing, inspection, assessment, and enforcement that could impose a backfit pertaining to new and operating reactors. The CRGR only reviews rulemakings at the request of the proposing office or as directed by the EDO (for the reasons cited in the response to Question 9). The CRGR also reviews documents for which the agency's non-concurrence process has been invoked related to a backfit issue. A key CRGR function is to ensure that the agency documents reviewed by the committee comply with all applicable Commission guidance, which would include the Commission direction in the SRM on qualitative factors (SRM-SECY-14-0087 issued on March 4, 2015). On a related note, on August 14, 2015, the Commission provided direction to the staff to analyze whether amendments to the CRGR's charter to alter its role in the agency's rulemaking process have the potential to better inform the agency's allocation of resources and prioritization of activities.

QUESTION 9. Did the CRGR review the staff's Mitigating Strategies and Containment Protection proposals prior to their transmission to the Commission? If not, why not? If so, what did the CRGR conclude in its review?

ANSWER:

The CRGR did not review either the proposed rule for Mitigation of Beyond-Design Basis Events or the Containment Protection and Release Reduction regulatory basis prior to their transmission to the Commission. The CRGR's review of proposed rulemaking packages was discontinued per Commission direction through the SRM on SECY-07-0134, "Evaluation of the Overall Effectiveness of the Rulemaking Process Improvement Implementation Plan," dated

October 25, 2007. The current rulemaking process has an information copy of the rulemaking package being provided to the CRGR at the final rule stage. This process change was recommended in SECY-07-0134 (and subsequently approved by the Commission) based largely on the extensive concurrence process associated with the rulemaking process that provides for participating NRC office review of the extensive supporting analyses, which includes both regulatory analysis and backfit analysis, and a legal review by the NRC Office of the General Counsel to ensure that backfit issues are adequately addressed. However, on August 14, 2015, the Commission directed the staff to provide the Commission a proposed plan for increasing the Commission's involvement in the rulemaking process with the objective of ensuring early Commission engagement before significant resources are expended. The proposed plan should include, at a minimum, a recommendation for possibly reintroducing Commission approval of the Rulemaking Activity Plan; assessing and addressing any lessons learned from the past changes to Commission engagement in the rulemaking process; and a recommendation for reconsideration of the Commission's 2006 direction with respect to the approval of rulemaking plans and the reviews of proposed rules by the CRGR and the Advisory Committee on Reactor Safeguards.