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## United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

RYAN JACKSON, MAJORITY STAFF DIRECTOR  
BETTINA POIRIER, DEMOCRATIC STAFF DIRECTOR

April 22, 2016

Mr. Victor M. McCree  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Mail Stop 0-16G4  
Washington, DC 20555-0001

Dear Mr. McCree,

On behalf of the Senate Committee on Environment and Public Works, we would like to thank you for testifying before the Clean Air and Nuclear Safety Subcommittee on Thursday, April 21, 2016, at the hearing entitled "Enabling Advanced Reactors and a Legislative Hearing on S.2795, the Nuclear Energy Innovation and Modernization Act." The subcommittee greatly appreciates your attendance and participation in this hearing.

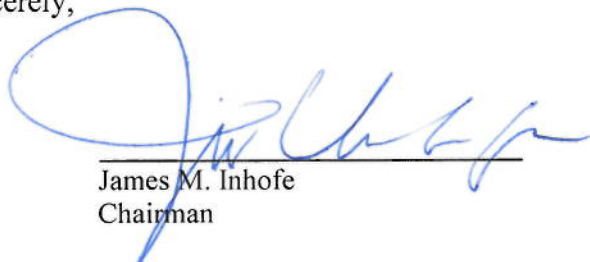
In order to maximize the opportunity for communication between you and the Committee, follow-up questions have been submitted by the members. We ask that you respond to all of the questions in one typed document. To comply with Committee rules, please e-mail a copy of your responses to [Elizabeth.Olsen@epw.senate.gov](mailto:Elizabeth.Olsen@epw.senate.gov) or deliver one hard copy by or before **Tuesday, April 26, 2016**. Responses should be delivered to the EPW Committee at 410 Dirksen Senate Office Building, Washington, DC 20510. Due to security restrictions, only couriers or employees with government identification will be permitted to bring packages into the building.

If you have any questions about the requests or the hearing, please feel free to contact Annie Caputo, in the Committee's Majority office at (202) 224-9325, Jason Albritton in the Committee's Minority office at (202) 224-1914, or Laura Gillam in Senator Carper's office at (202) 224-2441.

Sincerely,



Barbara Boxer  
Ranking Member



James M. Inhofe  
Chairman

**Senate Committee on Environment and Public Works**  
**Subcommittee on Clean Air and Nuclear Safety**  
**Hearing entitled, "Enabling Advanced Reactors and a Legislative Hearing on S.2795, the**  
**Nuclear Energy Innovation and Modernization Act"**  
**April 21, 2016**  
**Questions for the Record for Mr. Victor McCree**

**Senator Crapo:**

1. The language included in Section 8 of S. 2795 related to mandatory hearings under the Atomic Energy Act is in keeping with a previous legislative proposal by the NRC. At the hearing, Senator Markey raised a concern that the provision would preclude the public from any involvement in the NRC's process for issuing construction permits, operating licenses, or amendments to such permits and licenses. Can you clarify the effect of the proposal and, remind the Committee of why the NRC has previously recommended such a provision?
2. NRC regulations in 10 CFR Part 50 and Part 52 are primarily geared toward large light water reactors, and in general do not directly address advanced reactors. In order to enhance the predictability and certainty of the regulatory process for advanced reactors, do you agree that it would be beneficial for the NRC to develop a regulatory framework that is directly applicable to advanced reactors?
3. Do you agree that new regulatory concepts, including risk-informed concepts, should be developed for advanced reactors to fill existing regulatory gaps?
4. NRC regulations in 10 CFR 52.47 and 52.79 already require a probabilistic risk assessment (PRA) for new reactors. Would a risk-informed approach to regulation of advanced reactors be a logical application and extension of NRC's current practice with respect to the development and use of PRAs for new nuclear power plants?
5. NRC has been using PRAs for decades. Do you agree that use of PRAs has not led to a decrease in safety, but instead has enabled the NRC and the industry to focus on issues that are most significant to safety?
6. Under a risk-informed approach to regulation, would you expect that the NRC would require consideration of defense-in-depth features for advanced reactors to protect against low probability events and unforeseen events?
7. Do you agree that, under a risk-informed regulatory approach, advanced reactors may achieve a level of safety that is greater than current operating reactors?
8. If the NRC were to establish a risk-informed approach for advanced reactors, do you agree that members of the public would still be afforded an opportunity to request a

hearing on applications for licenses for advanced reactors? Do you agree that there is nothing in the bill to establish the “Nuclear Energy Innovation and Modernization Act” that would affect the right of the public to request such a hearing?

9. The NRC and DOE recently issued “Advanced Non-Light Water Reactor Design Criteria” for public comment. Do you agree that those criteria are compatible with a risk-informed approach to advanced reactors? Do you also agree that there is nothing in the bill to establish the “Nuclear Energy Innovation and Modernization Act” that would preclude the NRC from moving forward with establishment of design criteria for advanced reactors? Please describe all the opportunities for the public to participate, including public meetings, documents made public, opportunities to request hearings, etc.

**Senator Fischer:**

10. If the NRC is meeting its various performance metrics for timeliness, please describe why/how the provisions in S. 2795 would be burdensome or reduce the NRC’s flexibility.

**Senator Carper:**

11. S.2795 requires the NRC to send to Congress many reports– on average, how much NRC resources – including FTEs and time – are needed for a report to Congress?
12. Based on the NRC’s Fiscal Year 2017 budget, what would be the NRC’s net appropriation request be if the Commission had to adhere to the changes in the fee and charge structure within Sections 5 and 6 of S.2795?
13. Are there any concerns the changes to the NRC fee and charge structure could impair the NRC’s independence? If so, can you detail those concerns?
14. Are there any concerns the changes to the NRC fee and charge structure could limit the resources available for the agency to carry out its regulatory responsibilities? If so, can you detail those concerns?
15. Section 8 of S. 2795 removes the mandatory hearing requirements provided by Section 189 of the Atomic Energy Act of 1954. Based on the recent mandatory hearings required for the combined licenses for Vogtle 3 and 4, can you please provide the amount of time the mandatory hearings added to the application process? Did these hearings expose any concerns with the NRC staff conclusions that needed to be adjusted prior to the application being approved?
16. It is my understanding you previously served as NRC Regional Administrator for the Southeast. In that job, you had oversight of the construction of the four new reactors being built in Georgia and South Carolina. Is that correct?

- a. Do you have any lessons learned from this experience that could be applied to advanced nuclear reactors?

**Senator Whitehouse:**

- 17. Is the advanced reactor licensing framework proposed in the bill any less safe than what is currently in place at NRC?
  - a. Is there specific language included in the advanced reactor licensing provision that would make it less safe than what is currently in place at NRC?
- 18. Does the proposed advanced reactor licensing framework streamline or expedite the licensing process at NRC?

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**Subcommittee on Clean Air and Nuclear Safety**  
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## McCloskey, Bridin

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**From:** Olsen, Elizabeth (EPW) [[mailto:Elizabeth\\_Olsen@epw.senate.gov](mailto:Elizabeth_Olsen@epw.senate.gov)]

**Sent:** Friday, April 22, 2016 05:27 PM

**To:** Adams, Darrell

**Subject:** [External\_Sender] Senate Committee on Environment and Public Works Follow Up Questions for the hearing on Thursday, April 21, 2016

April 22, 2016

Mr. Victor M. McCree  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
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Sincerely,

Barbara Boxer  
Ranking Member

James M. Inhofe  
Chairman

Elizabeth "Lizzy" Olsen, J.D.  
Majority Director of Operations  
Senate Committee on Environment and Public Works  
C: (202) 407-3841  
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