From: Hayes, Alyssa Lee (Alyssa Hayes) <hayes@utk.edu>
Sent: Thursday, October 21, 2021 8:12 PM
To: NRC-EJReview Resource
Cc: Eric G. Meyer
Subject: [External_Sender] Hayes Written Comments for 10/21/21 NRC EJ Meeting
Attachments: Hayes Testimony for NRC EJ Hearing 21.10.21.pdf

Good evening,

I spoke earlier today at the NRC EJ meeting. I wanted to provide my written comments as a supplement to my verbal comments. This can help the NRC transcribers document my verbal comments because most of what I said is written here.

Additionally, I have provided hyperlinked citations. If any of the citations no longer work for any reason, please let me know and I would be happy to provide a more formal bibliography.

Again, thank you to the NRC staff who facilitate these impassioned discussions. Your work is important and addressing everyone's concerns will not be an easy task.

Take care and warmest regards,
Alyssa

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Good afternoon and thank you to the NRC staffers who have enabled this important conversation.

I am a bisexual woman of color. My mom emigrated to the U.S. from the Philippines when she was 9 years old, so I am the first person in my mom's family to be born in the U.S. Both of my parents have a high school education, so I am *also* the first person in my family to attend college. My mom worked at Walmart to support 5 kids and I grew up in a community of color. Thanks to the FAFSA, multiple NEUP (Nuclear Energy University Program) scholarships, and university grants, I was able to afford the chance to earn my B.S. in Nuclear Engineering from the University of Illinois and I am now a current Nuclear Engineering Ph.D. Candidate at the University of Tennessee.

I want to address the previous comments concerning the safety of nuclear power in our communities.

The history of uranium mining is a shameful one that the EPA is working to address through dispersing over one billion dollars in retroactive cleanup grants. [1, 2, 3] And long-term geologic storage of waste is a major point of political contention that has resulted in the indefinite temporary storage of used nuclear fuel in above-ground dry casks. I will actually be visiting San Onofre myself this coming Sunday to visit their used fuel with the intention of posting educational information about nuclear waste.

There have been multiple instances of people on this call requesting for the NRC to be more transparent and to provide educational content. I think a realistic way to do so might be to publicize the monitoring of extremely low-level radiation released from nuclear activities. Those measurements could be paired with metrics for comparison that explain the minimal biological impact of Becquerels and microrems of dose. [4]

I actually grew up just 15 minutes away from the Zion Nuclear Generating Station, which was decommissioned the year after I was born. The consequences *for me* of living near Zion weren't ones of safety or of radiation. It was economic. That plant was a centerpiece of the Zion-Benton economy, so its premature shutdown was detrimental to the community and to the schools funded by those property taxes. More than 20 years after the plant was decommissioned, Zion schools still spend about $3,000 less per student than neighboring schools like Grayslake North and Central. [5, 6, 7, 8] Those economic issues are now being addressed by the State of Illinois, but I wanted to point out the severe impact of prematurely decommissioning a plant and the long-term difficulties the U.S. has experienced in our efforts to address them.

Finally, I want to address one of the concerns of the Nuclear Information and Resource Service representative. Climate change is no small villain. In 2019, fossil fuels comprised 84% of the energy consumed worldwide was generated by fossil fuels. [9] And as developing nations improve their citizens' quality of life, demand for energy is escalating. It is currently predicted that energy demand will double by 2050. [10] And right now, we're seeing the biggest growth from yes, renewables, but also natural gas. Nuclear and renewables must work together to replace fossil fuels, so this draws back to Eric Meyer's comment that it's vital for the NRC to enable the efficient deployment of new reactors, particularly of small modular reactors.

Thank you for your time.