PennState College of Engineering

KEN AND MARY ALICE LINDQUIST DEPARTMENT OF NUCLEAR ENGINEERING

Department of Nuclear Engineering
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April 9, 2020

The Honorable Eddie Bernice Johnson
Chairwoman
Committee on Science, Space & Technology
House of Representatives
Washington, DC 20515

The Honorable Frank Lucas
Ranking Member
Committee on Science, Space & Technology
House of Representatives
Washington, DC 20515

Dear Chairwoman Johnson and Ranking Member Lucas,

On behalf of Penn State University, I am writing in support of H.R. 6097, the Nuclear Energy Research and Development Act. This bill has the potential to spur innovations in nuclear science and education and foster much needed new research and development (R&D) opportunities in advanced nuclear reactor technologies.

As you may know, Penn State is one the nation's leading research universities as we are the only university in the nation that ranks in the top ten in 18 different R&D disciplines. More specifically, we are one of the top energy R&D and education universities with more than 320 individual investigators researching energy issues and offering more than 30 energy-focused undergraduate and graduate degrees. In terms of nuclear engineering, Penn State plays a vital role in developing the nuclear power workforce. The Nuclear Engineering Program at Penn State graduates approximately 12 percent of those receiving baccalaureate degrees in nuclear engineering in the nation, making our program one of the largest in the world. Furthermore, we were the first University in the United States to offer a master's degree in nuclear security.

We are also one of the leading nuclear energy R&D institutions in the country. The University operates the Penn State Breazeale Nuclear Reactor (PSBR) within the Radiation Science and Engineering Center (RSEC), which is the longest operating licensed research nuclear reactor in the nation. PSBR is the primary neutron source for radiation services for R&D for many industrial and government entities including for over twenty organizations in areas of in-core irradiation, fast-neutron irradiations, thermal neutron irradiation and gamma-ray irradiations. Additionally, RSEC is also strongly engaged in public outreach activities, which bring more than 3,000 people to the facility each year. Tours range from primary school students, scouting groups, high school students, and teachers to college students, visiting faculty, and government officials.

Nuclear power has been generating clean, reliable and efficient electricity for more than six decades producing almost 20% of U.S. electricity, but could contribute even more significantly to our nation's goals of clean air and energy independence. In order to promote additional clean,

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reliable and efficient power generation, we believe investment in nuclear scientific research is critical to overcome fundamental challenges in nuclear science and engineering. H.R. 6097 authorizes numerous nuclear energy R&D programs to help address some of these challenges. Penn State is particularly supportive of the authorizations for advanced nuclear reactor technologies including for materials, modeling/simulation and chemistry; nuclear energy apprenticeships; and Nuclear Energy University Program (NEUP) in H.R. 6097.

Thank you in advance for your efforts to support H.R. 6097 as the legislative process continues. Please do not hesitate to contact me if we can be of any assistance now or in the future.

Sincerely,

Prof. J.P. Allain

Professor and Department Head
Ken and Mary Alice Lindquist Department of Nuclear Engineering
Radiation Surface Science and Engineering Laboratory (RSSEL), Director
Lloyd & Dorothy Foehr Huck Chair in Plasma Medicine
Department of Biomedical Engineering, Professor by Courtesy
Institute for Computing and Data Sciences (ICDS) Co-Hire
Huck Institutes of the Life Sciences, Affiliate Faculty
Materials Research Institute, Affiliate Faculty

Cc: The Honorable Conor Lamb
The Honorable Dan Newhouse