

**Virtual Member Day Hearing for House Armed Services Committee on Fiscal Year (FY)
2022 National Defense Authorization Act (NDAA)**

Written Testimony of Congressman Bill Foster (IL-11)

Wednesday, May 5, 2021

Thank you for the opportunity to submit written testimony to the House Armed Services Committee on my priorities for the Fiscal Year (FY) 2022 National Defense Authorization Act (NDAA). I request the committee include the following provisions in this year's NDAA: 1) authorize \$20 million for the Deputy Administrator for Defense Nuclear Nonproliferation of the National Nuclear Security Administration (NNSA) for the exclusive purpose of carrying out research on low-enriched uranium (LEU) fuel for pressurized water reactors for aircraft carriers and submarines; 2) realign the National Technical Nuclear Forensics (NTNF) Program from the Department of Homeland Security (DHS) to the National Nuclear Security Administration (NNSA) under the Department of Energy (DOE).

1. Low-Enriched Uranium Naval Fuel Research and Development

For decades, the elimination of highly enriched uranium (HEU) outside of nuclear weapons has been a U.S. policy objective because of proliferation concerns that HEU can be used to make a simple, gun-type design nuclear bomb with a multi-kiloton yield. Currently, the largest remaining non-weapons use of HEU is fuel for naval propulsion reactors. Public estimates assess that U.S. naval reactors use more than two tons of weapons-grade HEU annually, equivalent to hundreds of nuclear weapons.

As the only Ph.D. physicist in Congress, I have studied at length the question of minimizing the use of highly enriched uranium (HEU) in naval propulsion reactors. Continuing to research a transition to LEU fuel is crucial because if found to be technologically and economically feasible, the minimization of HEU would have significant benefits for international nonproliferation and counterterrorism efforts.

It is now more important than ever for the United States to lead by example and continue exploring the feasibility of converting our naval nuclear propulsion to LEU fuel. As the committee has done in previous NDAA's, I urge the committee to include \$20 million in FY22 NDAA to continue this research on LEU fuel.

2. Realign the National Technical Nuclear Forensics (NTNF) Program

After multiple discussions with the National Nuclear Security Administration (NNSA), who has worked closely with the Department of Homeland Security (DHS), I urge the committee to realign the National Technical Nuclear Forensics (NTNF) program from DHS to NNSA. Congress formally codified the NTNF program in 2010 to ensure a ready and robust nuclear forensics capability. The program has established a nuclear forensics interagency partnership to prepare the government to respond to a nuclear event without warning.

However, as the NTNF program's capabilities have matured, the misalignment of its functions has created inefficiencies that inhibit the program's advancement. Specifically, while DHS is responsible for planning NTNF exercises, it has no operational role in the mission because NTNF relies on nuclear device design and material production expertise, which the NNSA is responsible for.

Realigning the NTNF program under NNSA would make NNSA responsible for ensuring the integration of activities that are consistent with a unified strategic direction. This realignment will lead to greater efficiency and eliminate duplication of efforts between NNSA and DHS, as NTNF will have direct access to NNSA's research and development (R&D) efforts and nuclear materials.

Thank you for the opportunity to submit this written testimony. I look forward to working with the committee on these priorities for the FY22 NDAA.