

June 30, 2020

The Honorable Adam Smith, Chairman
The Honorable Mac Thornberry, Ranking Member
House Armed Services Committee
2216 Rayburn House Office Building
Washington, DC 20515

Re: Langevin Amendment to NDAA on Navy LEU Fuel R&D

Dear Chairman Smith and Ranking Member Thornberry,

We, the undersigned experts on the security of nuclear weapons-usable materials, write to highlight the potential benefits of Rep. Langevin's proposed amendment in committee markup of the FY 2021 National Defense Authorization Act (NDAA), which would earmark \$20 million for continued research and development of low-enriched uranium (LEU) fuel for Navy propulsion reactors, from the amount authorized for Defense Nuclear Nonproliferation R&D in the base bill.

This Navy LEU fuel R&D, if successful, could help in at least three ways to prevent the spread of nuclear weapons. First, it would reduce risks of nuclear terrorism by ending domestic shipments of more than two tons annually of bomb-grade, highly enriched uranium (HEU) – sufficient for at least 100 nuclear weapons – to a civilian facility that fabricates Navy fuel but does not have the same required security as government sites. Second, it would undercut claims by countries such as Iran that they require HEU for marine propulsion. Third, it would avert the need, recently stated by the Department of Energy, to resume domestic production of HEU for the first time since 1992, “to fuel Navy nuclear reactors in the 2050s,” which would undermine U.S. nonproliferation efforts to prevent other countries from producing HEU.

Congress has authorized and appropriated funding for Navy LEU fuel R&D on a bipartisan basis for the last five years, from FY 2016 to FY 2020. In a July 2016 report to Congress, the Office of Naval Reactors stated that, “Having the option to use an LEU fuel system could have positive implications from a national security standpoint by creating a practical alternative to HEU reactors. . . . The advanced LEU fuel system concept has the potential to satisfy the energy requirements of an aircraft carrier without affecting the number of refuelings.” In a November 2016 report, the JASON science advisory panel added that it might be possible to use LEU fuel also in future attack and ballistic missile submarines, stating that, “This scenario achieves the nonproliferation goal of eliminating use of HEU, and it could do so in the 2040 time frame.” To achieve that goal, however, the JASON report underscored the importance of LEU fuel R&D being well advanced prior to making design decisions around 2030 regarding the next-generation attack submarine.

The FY 2021 NDAA, as approved by your subcommittees, does not authorize this program, nor does the Senate version of the bill. Unless the Langevin amendment is adopted, the NDAA would exclude such funding for the first time in six years, despite the urgent deadline identified in the JASON report. Failure to conduct such R&D could increase risks of nuclear proliferation and nuclear terrorism arising from continued and expanded domestic and foreign production and use of HEU for marine propulsion.

We urge you to keep these considerations in mind as the committee considers the Langevin amendment.

Sincerely,

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