AMENDMENT TO RULES COMMITTEE PRINT

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OFFERED BY MR. FOSTER OF ILLINOIS

At the end of subtitle B of title XXXI of division C, insert the following:

SEC. 31. PROGRAM FOR RESEARCH AND DEVELOPMENT
OF ADVANCED NAVAL NUCLEAR FUEL SYSTEM BASED ON LOW-ENRICHED URANIUM.

(a) Establishment.—Not later than 60 days after the date of the enactment of this Act, the Administrator for Nuclear Security shall establish a program to assess the viability of using low-enriched uranium in naval nuclear propulsion reactors, including such reactors located on aircraft carriers and submarines, that meet the requirements of the Navy.

(b) Activities.—In carrying out the program under subsection (a), the Administrator shall carry out activities to develop an advanced naval nuclear fuel system based on low-enriched uranium, including activities relating to—

(1) down-blending of high-enriched uranium into low-enriched uranium;

(2) manufacturing of candidate advanced low-enriched uranium fuels;
(3) irradiation tests and post-irradiation examination of these fuels; and

(4) modification or procurement of equipment and infrastructure relating to such activities.

(c) SUBMISSION OF PLAN.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall submit to the congressional defense committees a plan outlining the activities the Administrator will carry out under the program established under subsection (a), including the funding requirements associated with developing a low-enriched uranium fuel.

(d) REPORT ON PERFORMANCE IMPACT OF LOW-ENRICHED URANIUM REACTOR CORE SIZE.—Not later than December 15, 2021, the Administrator, in consultation with the Secretary of the Navy, shall prepare and submit to the congressional defense committees a report assessing the feasibility and performance impact of a Virginia-Class replacement nuclear powered attack submarine that retains the existing hull diameter and power plant design, but leaves sufficient space for a low-enriched uranium-fueled reactor with a life of the ship core, possibly with an increased module length. The report shall assess the impact on vessel performance of the increased core size over the range of potential low-enriched uranium fuel packing densities discussed in the November 2016 JASON
report JSR-16-Task-013, and contrast this with the performance impact of recent adjustments of vessel lengths such as that from the Virginia Payload Module.

In section 4701 of division D, relating to Defense Nuclear Nonproliferation, Defense Nuclear Nonproliferation R&D, insert a new line following the Nonproliferation Stewardship Program titled LEU Research and Development and increase the amount by $20,000,000 for the purpose of LEU Research and Development for Naval Pressurized Water Reactors.

In section 4701 of division D, relating to Defense Nuclear Nonproliferation, R&D, decrease the amount for Proliferation Detection, nuclear verification and next gen technologies by $20,000,000.