

AMENDMENT TO RULES COMMITTEE PRINT

117-13

OFFERED BY MR. FOSTER OF ILLINOIS

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

1 **SEC. 31 ____ . PROGRAM FOR RESEARCH AND DEVELOPMENT**
2 **OF ADVANCED NAVAL NUCLEAR FUEL SYS-**
3 **TEM BASED ON LOW-ENRICHED URANIUM.**

4 (a) ESTABLISHMENT.—Not later than 60 days after
5 the date of the enactment of this Act, the Administrator
6 for Nuclear Security shall establish a program to assess
7 the viability of using low-enriched uranium in naval nu-
8 clear propulsion reactors, including such reactors located
9 on aircraft carriers and submarines, that meet the require-
10 ments of the Navy.

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

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

17 (2) manufacturing of candidate advanced low-
18 enriched uranium fuels;

1 (3) irradiation tests and post-irradiation exam-
2 ination of these fuels; and

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

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

12 (d) REPORT ON PERFORMANCE IMPACT OF LOW-EN-
13 RICHED URANIUM REACTOR CORE SIZE.—Not later than
14 December 15, 2021, the Administrator, in consultation
15 with the Secretary of the Navy, shall prepare and submit
16 to the congressional defense committees a report assessing
17 the feasibility and performance impact of a Virginia-Class
18 replacement nuclear powered attack submarine that re-
19 tains the existing hull diameter and power plant design,
20 but leaves sufficient space for a low-enriched uranium-
21 fueled reactor with a life of the ship core, possibly with
22 an increased module length. The report shall assess the
23 impact on vessel performance of the increased core size
24 over the range of potential low-enriched uranium fuel
25 packing densities discussed in the November 2016 JASON

1 report JSR-16-Task-013, and contrast this with the per-
2 formance impact of recent adjustments of vessel lengths
3 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.

