

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MR. MARKEY OF MASSACHUSETTS

Amend section 633 to read as follows:

1 **SEC. 633. MEDICAL ISOTOPE PRODUCTION: NON-**
2 **PROLIFERATION, ANTITERRORISM, AND RE-**
3 **SOURCE REVIEW.**

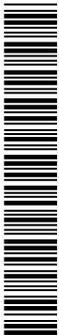
4 (a) DEFINITIONS.—For purposes of this section—

5 (1) the term “highly enriched uranium for med-
6 ical isotope production” means highly enriched ura-
7 nium contained in, or for use in, targets to be irradi-
8 ated for the sole purpose of producing medical iso-
9 topes;

10 (2) the term “medical isotopes” means radio-
11 active isotopes, including molybdenum-99, that are
12 used to produce radiopharmaceuticals for diagnostic
13 or therapeutic procedures on patients; and

14 (3) any term that is defined in the Atomic En-
15 ergy Act of 1954 (42 U.S.C. 2011 et seq.) shall have
16 the meaning given that term in that Act.

17 (b) SUBJECT OF STUDY.—Not later than 60 days
18 after the date of enactment of this Act, the Secretary of
19 Energy shall enter into an arrangement with the National
20 Academy of Sciences for a study of issues associated with



1 section 134 of the Atomic Energy Act of 1954 (42 U.S.C.
2 2160d) and its implementation.

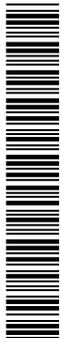
3 (c) CONTENTS.—The study shall include an analysis
4 of—

5 (1) the effectiveness to date of such section 134
6 in facilitating the conversion of foreign reactor fuel
7 and targets to low-enriched uranium and thereby re-
8 ducing the risk that highly enriched uranium will be
9 diverted and stolen;

10 (2) the degree to which isotope producers who
11 still rely on United States highly enriched uranium
12 are complying with the intent of section 134 to con-
13 vert their targets to low-enriched uranium expedi-
14 tiously;

15 (3) the adequacy of physical protection and ma-
16 terial control and accounting measures at foreign fa-
17 cilities that receive United States highly enriched
18 uranium for medical isotope production, in compari-
19 son to Nuclear Regulatory Commission regulations
20 and Department of Energy administrative require-
21 ments;

22 (4) the likely consequences of an exemption of
23 highly enriched uranium exports for medical isotope
24 production from subsection (a) of section 134 for
25 United States efforts to eliminate highly enriched



1 uranium commerce worldwide through its support of
2 the Reduced Enrichment in Research and Test Re-
3 actors program, as well as for other United States
4 nonproliferation and antiterrorism initiatives;

5 (5) what incentives could supplement those of
6 section 134 to further encourage foreign medical iso-
7 tope producers to convert from highly enriched ura-
8 nium to low-enriched uranium;

9 (6) whether implementation of section 134 has
10 ever caused an interruption in the production and
11 supply of medical isotopes in needed quantities to
12 the United States, or is likely to do so in the future;

13 (7) whether the United States supply of iso-
14 topes is sufficiently diversified to withstand an inter-
15 ruption of production from any one supplier, and, if
16 not, what steps should be taken to diversify United
17 States supply; and

18 (8) any other aspects of section 134 implemen-
19 tation that have a bearing on United States Govern-
20 ment nonproliferation and antiterrorism policies,
21 laws, and regulations.

22 (d) GUIDELINES.—The National Academy of
23 Sciences study shall be—

24 (1) conducted in full consultation with the Sec-
25 retary of State, the staff of the Reduced Enrichment



1 in Research and Test Reactors program at Argonne
2 National Laboratory, and other interested organiza-
3 tions and individuals with expertise in nuclear non-
4 proliferation; and
5 (2) submitted to Congress not later than 18
6 months after the date of enactment of this Act.

