

103<sup>D</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 4684

To authorize and provide program direction for high energy and nuclear physics research at the Department of Energy, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 30, 1994

Mr. BOUCHER (for himself, Mr. BROWN of California, Mr. BOEHLERT, Mr. TRAFICANT, Mr. FAWELL, Mr. EHLERS, and Mrs. LLOYD) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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## A BILL

To authorize and provide program direction for high energy and nuclear physics research at the Department of Energy, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Department of Energy  
5 High Energy and Nuclear Physics Authorization Act of  
6 1994”.

7 **SEC. 2. DEFINITIONS.**

8 For the purposes of this Act—

1           (1) the term “CERN” means the European  
2           Organization for Nuclear Research;

3           (2) the term “construction” means all activities  
4           necessary for completion of a project and its sup-  
5           porting infrastructure, and includes conventional  
6           construction and the research, development, design,  
7           fabrication, installation, testing, and preoperation of  
8           technical systems;

9           (3) the term “conventional construction” means  
10          the design and construction of civil works, facilities,  
11          and other infrastructure necessary to construct a  
12          project, including tunnels, buildings, and roads, nec-  
13          essary to house and support the technical systems,  
14          and utilities as necessary for the direct support of  
15          elements of a project;

16          (4) the term “Department” means the Depart-  
17          ment of Energy;

18          (5) the term “Large Hadron Collider project”  
19          means the Large Hadron Collider project at CERN;  
20          and

21          (6) the term “Secretary” means the Secretary  
22          of Energy.

1 **SEC. 3. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) HIGH ENERGY PHYSICS.—There are authorized  
3 to be appropriated to the Secretary for high energy phys-  
4 ics activities of the Department—

5 (1) \$695,400,000 for fiscal year 1996;

6 (2) \$719,700,000 for fiscal year 1997;

7 (3) \$744,900,000 for fiscal year 1998; and

8 (4) \$713,600,000 for fiscal year 1999.

9 Funds authorized under paragraphs (1) through (4) may  
10 be expended for the B-factory at the Stanford Linear Ac-  
11 celerator Center and the Fermilab Main Injector. No  
12 funds are authorized for United States participation in the  
13 planning and construction of the Large Hadron Collider  
14 project until the Secretary certifies to the Congress that  
15 there is an international agreement that includes the pro-  
16 visions described in section 4(a).

17 (b) NUCLEAR PHYSICS.—There are authorized to be  
18 appropriated to the Secretary for nuclear physics activities  
19 of the Department—

20 (1) \$337,100,000 for fiscal year 1996, of which  
21 not more than \$15,000,000 shall be used for prepa-  
22 ration for decontamination and decommissioning of  
23 the Los Alamos Meson Physics Facility;

24 (2) \$348,900,000 for fiscal year 1997;

25 (3) \$361,100,000 for fiscal year 1998; and

26 (4) \$373,700,000 for fiscal year 1999.

1 None of the funds authorized under paragraph (2), (3),  
2 or (4) are authorized to be appropriated for the operation  
3 of the Los Alamos Meson Physics Facility. Funds author-  
4 ized under paragraphs (1) through (4) may be expended  
5 for the Relativistic Heavy Ion Collider at Brookhaven  
6 National Laboratory.

7 (c) LIMITATION ON MAJOR CONSTRUCTION  
8 PROJECTS.—No funds may be expended for any high en-  
9 ergy and nuclear physics facility construction project of  
10 the Department, with total project expenditures projected  
11 to be in excess of \$100,000,000, unless funds are specifi-  
12 cally authorized for such purposes in an Act that is not  
13 an appropriations Act.

14 **SEC. 4. THE LARGE HADRON COLLIDER PROJECT.**

15 (a) NEGOTIATIONS.—The Secretary shall enter into  
16 negotiations with CERN concerning United States partici-  
17 pation in the planning and construction of the Large  
18 Hadron Collider project, and shall seek to ensure that any  
19 agreement incorporates provisions to protect the United  
20 States investment in the project, including provisions  
21 for—

22 (1) fair allocation of costs and benefits among  
23 project participants;

1           (2) a limitation on the amount of United States  
2           contribution to project construction and subsequent  
3           operating costs;

4           (3) a cost and schedule control system for the  
5           total project;

6           (4) the projected cost and schedule for all com-  
7           ponent design, testing, and fabrication, including  
8           technical goals and milestones;

9           (5) the projected cost and schedule for total  
10          project construction and operation, including tech-  
11          nical goals and milestones;

12          (6) reconsideration of the extent of United  
13          States participation if technical or operational mile-  
14          stones described in paragraphs (4) and (5) are not  
15          met, or if the project falls significantly behind sched-  
16          ule; and

17          (7) conditions of access for United States and  
18          other scientists to the facility.

19          (b) OTHER INTERNATIONAL NEGOTIATIONS.—Noth-  
20          ing in this Act shall be construed to preclude the President  
21          from entering into negotiations with respect to inter-  
22          national science agreements.

23          **SEC. 5. OPERATING PLAN.**

24          Within 30 days after the date of the enactment of  
25          any Act appropriating funds for the high energy or nuclear

1 physics activities of the Department, the Secretary shall  
2 transmit to the Committee on Science, Space, and Tech-  
3 nology of the House of Representatives and the Committee  
4 on Energy and Natural Resources of the Senate a plan  
5 for the operations of the high energy and nuclear physics  
6 activities of the Department, as adjusted to reflect the  
7 amounts appropriated for such purposes by such Act.

8 **SEC. 6. LONG-RANGE PLANNING AND GOVERNANCE.**

9 (a) PROGRAM GOVERNANCE REVIEW.—

10 (1) REQUIREMENT.—The Secretary shall con-  
11 tract with an appropriate independent organization  
12 to review the governance of all elements of the De-  
13 partment's high energy and nuclear physics pro-  
14 grams. Such review shall include—

15 (A) a performance review of the effective-  
16 ness of the Department's management policies  
17 and procedures, including an evaluation of de-  
18 partmental staff allocation and the staff alloca-  
19 tion and funding balance among facility oper-  
20 ations, construction, and research support;

21 (B) an evaluation of the appropriateness of  
22 the current application of administrative, envi-  
23 ronmental, health, and safety regulations to the  
24 high energy and nuclear physics laboratories of  
25 the Department; and

1           (C) an analysis of the extent to which the  
2           Department's high energy and nuclear physics  
3           advisory groups represent the diversity of, and  
4           the full range of interests among, high energy  
5           and nuclear physics researchers.

6           (2) REPORT TO CONGRESS.—The Secretary  
7           shall submit a report to Congress within 9 months  
8           after the date of enactment of this Act detailing the  
9           results of the review required by this section, includ-  
10          ing recommendations for implementing the results  
11          and schedules for such implementation.

12          (b) LONG-RANGE PLAN.—

13           (1) REQUIREMENT.—The Secretary and the Di-  
14          rector of the National Science Foundation shall  
15          jointly prepare, in consultation with the high energy  
16          physics and nuclear physics communities, a long-  
17          range plan for Federal high energy and nuclear  
18          physics programs based on current and projected  
19          program funding levels. The plan shall be modified  
20          every two years. The long-range plan shall include—

21           (A) a list of research opportunities to be  
22          pursued, including both ongoing and proposed  
23          activities, listed in order of priority;

1 (B) an analysis of the relevance of each re-  
2 search facility to the research opportunities list-  
3 ed under subparagraph (A);

4 (C) a statement of the optimal balance  
5 among facility operations, construction, and re-  
6 search support and the optimal balance between  
7 university and laboratory research programs;

8 (D) schedules for continuation, consolida-  
9 tion, or termination of each research program,  
10 and continuation, upgrade, transfer, or closure  
11 of each research facility;

12 (E) a statement by project of efforts to co-  
13 ordinate research projects with the international  
14 community to maximize the use of limited re-  
15 sources and avoid unproductive duplication of  
16 efforts; and

17 (F) a description of the extent to which the  
18 biennial plan modifications differ from previous  
19 plans submitted under this subsection, along  
20 with an explanation for such differences.

21 (2) REPORTS TO CONGRESS.—(A) The Sec-  
22 retary shall transmit a copy of the original long-  
23 range plan with the President's annual budget re-  
24 quest to Congress for fiscal year 1997. The plan as  
25 modified shall be submitted with the President's



1 budget request to Congress for each subsequent fis-  
2 cal year ending in an odd number.

3 (B) The Secretary shall transmit with the  
4 President's budget request to Congress each year a  
5 report demonstrating the consistency of the current  
6 long-range plan with the budget being requested for  
7 the Department's high energy and nuclear physics  
8 programs.

9 (c) CAPITAL BUDGET ACCOUNT.—Each of the Presi-  
10 dent's annual budget requests to the Congress for high  
11 energy physics activities of the Department, and for nu-  
12 clear physics activities of the Department, shall distin-  
13 guish between the budget for capital expenditures, includ-  
14 ing all ongoing and planned major construction and cap-  
15 ital equipment items, and other activities.

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