

Calendar No. 180

106<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

**S. 1287**

[Report No. 106-98]

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## **A BILL**

To provide for the storage of spent nuclear fuel pending completion of the nuclear waste repository, and for other purposes.

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JUNE 24, 1999

Read twice and placed on the calendar

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1ST SESSION**S. 1287****[Report No. 106-98]**

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IN THE SENATE OF THE UNITED STATES

JUNE 24, 1999

Mr. MURKOWSKI, from the Committee on Energy and Natural Resources, reported the following original bill; which was read twice and placed on the calendar

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**A BILL**

To provide for the storage of spent nuclear fuel pending completion of the nuclear waste repository, 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 “Nuclear Waste Policy  
5 Amendments Act of 1999”.

6 **SEC. 2. DEFINITIONS.**

7 For purposes of this Act—

1           (1) the term “contract holder” means a party  
2 to a contract with the Secretary of Energy for the  
3 disposal of spent nuclear fuel or high-level radio-  
4 active waste entered into pursuant to section 302(a)  
5 of the Nuclear Waste Policy Act of 1982 (42 U.S.C.  
6 1022(a)); and

7           (2) the terms “Administrator”, “civilian nuclear  
8 power reactor”, “Commission”, “Department”, “dis-  
9 posal”, “high-level radioactive waste”, “Indian  
10 tribe”, “repository”, “reservation”, “Secretary”,  
11 “spent nuclear fuel”, “State”, “storage”, “Waste  
12 Fund”, and “Yucca Mountain site” shall have the  
13 meanings given such terms in section 2 of the Nu-  
14 clear Waste Policy Act of 1982 (42 U.S.C. 10101).

## 15           **TITLE I—STORAGE AND** 16           **DISPOSAL**

### 17   **SEC. 101. PROGRAM SCHEDULE.**

18           (a) IN GENERAL.—The President, the Secretary, and  
19 the Nuclear Regulatory Commission shall carry out their  
20 duties under this Act and the Nuclear Waste Policy Act  
21 of 1982 by the earliest practicable date consistent with  
22 the public interest and applicable provisions of law.

23           (b) MILESTONES.—

24           (1) The Secretary shall make a final decision  
25 whether to recommend the Yucca Mountain site for

1 development of the repository to the President by  
2 December 31, 2001;

3 (2) The President shall make a final decision  
4 whether to recommend the Yucca Mountain site for  
5 development of the repository to the Congress by  
6 March 31, 2002;

7 (3) The Nuclear Regulatory Commission shall  
8 make a final decision whether to authorize construc-  
9 tion of the repository by December 31, 2006; and

10 (4) As provided in subsection (c), the Secretary  
11 shall begin receiving waste at the repository site at  
12 the earliest practicable date after receiving author-  
13 ization from the Nuclear Regulatory Commission.

14 (c) RECEIPT FACILITIES.—

15 (1) Concurrent with the submission of an appli-  
16 cation for a construction authorization pursuant to  
17 section 114(b) of the Nuclear Waste Policy Act of  
18 1982 (42 U.S.C. 10134(b)), the Secretary shall  
19 apply to the Commission for a license to receive and  
20 possess spent nuclear fuel and high-level radioactive  
21 waste at surface facilities within the geologic reposi-  
22 tory operations area for the receipt, handling, pack-  
23 aging, and storage prior to emplacement.

24 (2) Concurrent with the issuance of the con-  
25 struction authorization under section 114(b) of the

1 Nuclear Waste Policy Act of 1982, the Commission  
2 shall issue a license authorizing receipt and posses-  
3 sion of spent nuclear fuel and high-level radioactive  
4 waste at surface facilities within the geologic reposi-  
5 tory operations area for the purposes in subsection  
6 (c)(1). The Commission shall issue this license in ac-  
7 cordance with such standards as the Commission  
8 finds are necessary to protect the public health and  
9 safety.

10 (d) NOTICE OF NONCOMPLIANCE.—If, at any time,  
11 the Secretary, the President, or the Nuclear Regulatory  
12 Commission determines that the Secretary, President, or  
13 Commission, as appropriate, cannot meet a milestone  
14 under subsection (b), the Secretary, President, or Com-  
15 mission, as appropriate, shall immediately notify  
16 Congress—

17 (1) that the deadline will not be met and the  
18 reason it will not be met; and

19 (2) the date on which the milestone will be met.

20 **SEC. 102. BACKUP STORAGE CAPACITY.**

21 (a) AUTHORIZATION.—Subject to section 105(d), the  
22 Secretary shall enter into a contract under this subsection  
23 with any person generating or owning spent nuclear fuel  
24 that meets the requirements of section 135(b)(1) (A) and

1 (B) of the Nuclear Waste Policy Act of 1982 (42 U.S.C.  
2 10155(b)(1) (A) and (B)) to—

3 (1) take title at the civilian nuclear power reac-  
4 tor site to such amounts of spent nuclear fuel from  
5 the civilian nuclear power reactor as the Commission  
6 determines cannot be stored onsite; and

7 (2) transport such spent nuclear fuel to, and  
8 store such spent nuclear fuel at—

9 (A) the repository site after the Commis-  
10 sion has authorized construction of the reposi-  
11 tory without regard to the Secretary’s Accept-  
12 ance Priority Ranking Report or Annual Capac-  
13 ity Report; or

14 (B) a privately owned and operated inde-  
15 pendent spent fuel storage facility licensed by  
16 the Nuclear Regulatory Commission.

17 **SEC. 103. REPOSITORY LICENSING.**

18 (a) Section 801 of the Energy Policy Act of 1992 is  
19 repealed.

20 (b) Section 121 of the Nuclear Waste Policy Act of  
21 1982 is amended to read as follows:

22 “SEC. 121. (a) REPOSITORY LICENSING STAND-  
23 ARDS.—The Commission shall establish standards for pro-  
24 tection of the public and the environment from releases

1 of radioactive materials or radioactivity from the reposi-  
2 tory, consistent with the following:

3           “(1) RISK STANDARD.—The standard for pro-  
4           tection of the public and environment from releases  
5           of radioactive materials or radioactivity from the re-  
6           pository after permanent closure shall limit the life-  
7           time risk to the average member of the critical  
8           group of premature death from cancer due to such  
9           releases of approximately, but not greater than, 1 in  
10          1000.

11           “(2) ESTABLISHMENT OF OVERALL SYSTEM  
12          PERFORMANCE OBJECTIVE.—The Commission shall  
13          implement the standard in paragraph (1) by estab-  
14          lishing, by rule, an overall system performance ob-  
15          jective for expected annual dose to the average mem-  
16          ber of the critical group. The Commission shall not  
17          promulgate performance objectives for the repository  
18          in the form of release limits or contaminant levels  
19          for individual radionuclides discharged from the re-  
20          pository.

21           “(3) ASSUMPTION AND FACTORS.—The Com-  
22          mission shall specify, by rule, values for all of the  
23          assumptions deemed necessary to apply the overall  
24          system performance objective in a licensing pro-  
25          ceeding for the repository, including reference bio-

1 sphere and size characteristics of the critical group.  
2 For purposes of establishing the overall system per-  
3 formance objective in paragraph (2) and making the  
4 findings in subsection (b), the Commission shall  
5 not—

6 “(A) consider climate regimes that are  
7 substantially different from those that have oc-  
8 curred during the previous 100,000 years at the  
9 Yucca Mountain site;

10 “(B) consider catastrophic events where  
11 the health consequences of individual events  
12 themselves to the critical group can be reason-  
13 ably assumed to exceed the health consequences  
14 due to the impact of the events on repository  
15 performance; and

16 “(C) base the overall system performance  
17 objective in paragraph (2) or the finding in sub-  
18 section (b) on scenarios involving human intru-  
19 sion into the repository following repository clo-  
20 sure, although the Commission may consider  
21 the consequences of an assumed human intru-  
22 sion scenario to determine if repository per-  
23 formance would be substantially degraded by a  
24 single instance of human intrusion during the  
25 first 1,000 years after repository closure.



1           “(4) DEFINITIONS.—As used in this section,  
2           the term ‘critical group’ means a small group of peo-  
3           ple that is—

4                   “(A) representative of individuals expected  
5                   to be at highest risk of premature death from  
6                   cancer as a result of discharges of radionuclides  
7                   from the repository;

8                   “(B) relatively homogeneous with respect  
9                   to expected radiation dose, which shall mean  
10                  that there shall be no more than a factor of 10  
11                  in variation in individual doses among members  
12                  of the group; and

13                  “(C) selected using reasonable assumptions  
14                  concerning lifestyle, occupation, diet and eating  
15                  habits, technological sophistication, and other  
16                  relevant social and behavioral factors that are  
17                  based on reasonably available information on  
18                  inhabitants and conditions in the area within a  
19                  50-mile radius surrounding Yucca Mountain  
20                  when the group is defined.

21           “(b) APPLICATION OF OVERALL SYSTEM PERFORM-  
22           ANCE OBJECTIVE.—The Commission shall issue a con-  
23           struction authorization, license to dispose of spent nuclear  
24           fuel and high-level radioactive waste in the repository, and  
25           license amendment to permit permanent closure of the re-

1   pository, upon a finding of reasonable assurance, making  
2   allowance for the time period, hazards, and uncertainties  
3   involved, that for the first 10,000 years following closure  
4   of the repository, the overall system performance estab-  
5   lished pursuant to subsection (a) will be met. The finding  
6   of reasonable assurance shall be based on regulatory in-  
7   sight gained by the Commission through use of predictive  
8   models, supported, to the extent deemed practicable by the  
9   Commission, by data from field and laboratory tests, site-  
10  specific monitoring, and natural analog studies and sup-  
11  plemented, as necessary, by expert judgment.

12       “(c) ENVIRONMENTAL IMPACT STATEMENT.—The  
13  promulgation of standards or criteria in accordance with  
14  the provisions of this section shall not require the prepara-  
15  tion of an environmental impact statement under section  
16  102(2)(C) of the National Environmental Policy Act of  
17  1969 (42 U.S.C. 4332(2)(C)) or any environmental review  
18  under subparagraph (E) or (F) of section 102(2) of such  
19  Act.”.

20       (c) GUIDELINES.—Section 112(a) of the Nuclear  
21  Waste Policy Act of 1982 (42 U.S.C. 10132(a)) is amend-  
22  ed by adding, at the end of the section, the following; “The  
23  Secretary’s guidelines shall not be inconsistent with any  
24  standards promulgated under section 121, and to the ex-  
25  tent practicable, any conclusions of the Secretary regard-

1 ing site suitability shall be based on an assessment of total  
2 system performance of the repository.”.

3 (d) CAPACITY.—Section 114 of the Nuclear Waste  
4 Policy Act of 1982 (42 U.S.C. 10134) is amended—

5 (1) in subsection (b) by inserting at the end:  
6 “In developing an application for authorization to  
7 construct the repository, the Secretary shall seek to  
8 maximize the capacity of the repository.”, and

9 (2) in subsection (d) by striking “The Commis-  
10 sion decision approving the first such  
11 application . . .” through the period at the end of  
12 the sentence.

13 **SEC. 104. NUCLEAR WASTE FEE.**

14 The last sentence of section 302(a)(4) of the Nuclear  
15 Waste Policy Act of 1982 (42 U.S.C. 10222(a)(4)) is  
16 amended to read as follows:

17 “The adjusted fee proposed by the Secretary shall be  
18 effective upon enactment of a joint resolution or  
19 other provision of law specifically approving the ad-  
20 justed fee.”

21 **SEC. 105. SETTLEMENT AGREEMENTS.**

22 (a) IN GENERAL.—The Secretary may, upon the re-  
23 quest of any person with whom he has entered into a con-  
24 tract under section 302(a) of the Nuclear Waste Policy

1 Act of 1982 (42 U.S.C. 10222(a), enter into a settlement  
2 agreement with the contract holder to—

3 (1) relieve any harm caused by the Secretary's  
4 failure to meet the Department's commitment, or

5 (2) settle any legal claims against the United  
6 States arising out of such failure.

7 (b) TYPES OF RELIEF.—Pursuant to a settlement  
8 agreement entered into under this section, the Secretary  
9 may—

10 (1) take title to the contract holder's spent nu-  
11 clear fuel, notwithstanding section 302(a)(5) of the  
12 Nuclear Waste Policy Act of 1982 (42 U.S.C.  
13 10222(a)(5));

14 (2) provide spent nuclear fuel storage casks to  
15 the contract holder;

16 (3) take title to and operate an existing dry  
17 cask storage facility at the contract holder's site;

18 (4) compensate the contract holder for the cost  
19 of providing spent nuclear fuel storage at the con-  
20 tract holders' storage facility; or

21 (5) provide any combination of the foregoing.

22 (c) SCOPE OF RELIEF.—The Secretary's obligation  
23 to take title to a contract holder's spent nuclear fuel, pro-  
24 vide storage casks, or compensate a contract holder for  
25 the cost of providing nuclear fuel storage under a settle-

1 ment agreement under this section shall not exceed the  
2 Secretary's obligation to accept delivery of such spent fuel  
3 under the terms of the Secretary's contract with such con-  
4 tract holder under section 302(a) of the Nuclear Waste  
5 Policy Act of 1982 (42 U.S.C. 10222(a)) and the delivery  
6 commitment schedule annexed thereto (including any oth-  
7 erwise permissible assignment of rights under such sched-  
8 ule).

9 (d) WAIVER OF CLAIMS.—(1) The Secretary may not  
10 enter into a settlement agreement under subsection (a) or  
11 a backup contract under section 102(a) with any contract  
12 holder unless the contract holder—

13 (A) makes an election within 180 days after the  
14 date of enactment of this Act to enter into a settle-  
15 ment agreement, and

16 (B) as part of such settlement agreement,  
17 waives any claim for damages against the United  
18 States arising out of the Secretary's failure to begin  
19 disposing of such person's high-level waste or spent  
20 nuclear fuel by January 31, 1998.

21 (2) Nothing in this subsection shall be read to require  
22 a contract holder to waive any future claim against the  
23 United States arising out of the Secretary's failure to meet  
24 any new obligation assumed under settlement agreement  
25 or backup storage agreement.

1 (e) SOURCE OF FUNDS.—Notwithstanding section  
2 302(d) of the Nuclear Waste Policy Act of 1982 (42  
3 U.S.C. 10222(d)), the Secretary may not make expendi-  
4 tures from the Nuclear Waste Fund for any costs that  
5 may be incurred by the Secretary pursuant to a settlement  
6 agreement or backup storage contract under this Act  
7 except—

8 (1) the cost of acquiring and loading spent nu-  
9 clear fuel casks;

10 (2) the cost of transporting spent nuclear fuel  
11 from the contract holder’s site to the repository; and

12 (3) any other cost incurred by the Secretary  
13 pursuant to a settlement agreement or backup stor-  
14 age contract that would have been incurred by the  
15 Secretary under the contracts entered into under  
16 section 302(a) of the Nuclear Waste Policy Act of  
17 1982 (42 U.S.C. 10222(a)) notwithstanding their  
18 amendment pursuant to this Act.

19 (f) SAVINGS CLAUSE.—(1) Nothing in this section  
20 shall limit the Secretary’s existing authority to enter into  
21 settlement agreements or address shutdown reactors and  
22 any associated public health and safety or environmental  
23 concerns that may arise.

24 (2) Nothing in this Act modifies or alters obligations  
25 imposed upon the Federal Government by the United

1 States District Court of Idaho in an order entered on Oc-  
2 tober 17, 1995 in United States v. Batt (No. 91-0054-  
3 S-EJL).

4 **SEC. 106. ACCEPTANCE SCHEDULE.**

5 The acceptance schedule shall be implemented in ac-  
6 cordance with the following:

7 (1) **PRIORITY RANKING.**—Acceptance priority  
8 ranking shall be determined by the Department’s  
9 ‘Acceptance Priority Ranking’ report.

10 (2) **ACCEPTANCE RATE.**—Beginning in the year  
11 of the issuance of a license to receive and possess  
12 spent nuclear fuel and high-level radioactive waste  
13 under section 101(c), the Secretary’s acceptance rate  
14 for spent nuclear fuel shall be no less than the fol-  
15 lowing: 1,200 Metric Tons Uranium (MTU) in year  
16 1 and 1,200 MTU in year 2, 2,000 MTU in year 3  
17 and 2,000 MTU in year 4, 2,700 MTU in year 5,  
18 and 3,000 MTU annually thereafter.

19 (3) **OTHER ACCEPTANCES.**—Subject to the con-  
20 ditions contained in the license to receive and pos-  
21 sess spent nuclear fuel and high-level radioactive  
22 waste issued under section 101(c), of the amounts  
23 provided for in paragraph (2) for each year, not less  
24 than one-sixth shall be—

1 (A) spent nuclear fuel or civilian high-level  
2 radioactive waste of domestic origin from civil-  
3 ian nuclear power reactors that have perma-  
4 nently ceased operation on or before the date of  
5 enactment of the Nuclear Waste Policy Act  
6 Amendments of 1999;

7 (B) spent nuclear fuel from foreign re-  
8 search reactors, as necessary to promote non-  
9 proliferation activities; and

10 (C) spent nuclear fuel and high-level radio-  
11 active waste from research and atomic energy  
12 defense activities, including spent nuclear fuel  
13 from naval reactors;

14 *Provided, however,* That the Secretary shall accept  
15 not less than 7.5 percent of the total quantity of fuel  
16 and high-level radioactive waste accepted in any year  
17 from the categories of radioactive materials de-  
18 scribed in subparagraphs (B) and (C) in paragraph  
19 (3). If sufficient amounts of radioactive materials  
20 are not available to utilize this allocation, the Sec-  
21 retary shall allocate this acceptance capacity to other  
22 contract holders.

23 (4) EFFECT ON SCHEDULE.—The contractual  
24 acceptance schedule shall not be modified in any way  
25 as a result of the Secretary's acceptance of any ma-



1       terial other than contract holders' spent nuclear fuel  
2       and high-level radioactive waste.

## 3       **TITLE II—TRANSPORTATION**

### 4       **SEC. 201. TRANSPORTATION PLANNING.**

5       (a)       TRANSPORTATION        READINESS.—The  
6       Secretary—

7               (1) shall take such actions as are necessary and  
8       appropriate to ensure that the Secretary is able to  
9       transport safely spent nuclear fuel and high-level ra-  
10      dioactive waste from any site where such spent nu-  
11      clear fuel or high-level radioactive waste is generated  
12      or stored to the Yucca Mountain site, using routes  
13      that minimize, to the maximum practicable extent  
14      consistent with Federal requirements governing  
15      transportation of hazardous materials, transpor-  
16      tation of spent nuclear fuel and high-level radio-  
17      active waste through populated areas; and

18              (2) as soon as is practicable following the enact-  
19      ment of this Act, the Secretary shall, in consultation  
20      with the Secretary of Transportation and affected  
21      States and tribes, and after an opportunity for pub-  
22      lic comment, develop and implement a comprehen-  
23      sive management plan that ensures safe transpor-  
24      tation of spent nuclear fuel and high-level radio-

1 active waste from the sites designated by the con-  
2 tract holders to the Yucca Mountain site.

3 (b) TRANSPORTATION PLANNING.—In conjunction  
4 with the development of the logistical plan in accordance  
5 with subsection (a), the Secretary shall update and mod-  
6 ify, as necessary, the Secretary's transportation institu-  
7 tional plans to ensure that institutional issues are ad-  
8 dressed and resolved on a schedule to support the com-  
9 mencement of transportation of spent nuclear fuel and  
10 high-level radioactive waste to the Yucca Mountain site no  
11 later than December 31, 2006. Among other things, such  
12 planning shall provide a schedule and process for address-  
13 ing and implementing, as necessary, transportation rout-  
14 ing plans, transportation contracting plans, transportation  
15 training in accordance with section 202, public education  
16 regarding transportation of spent nuclear fuel and high-  
17 level radioactive waste, and transportation tracking pro-  
18 grams.

19 (c) SHIPPING CAMPAIGN TRANSPORTATION  
20 PLANS.—

21 (1) IN GENERAL.—The Secretary shall develop  
22 a transportation plan for the implementation of each  
23 shipping campaign (as that term is defined by the  
24 Secretary) from each site at which spent nuclear fuel  
25 or high-level nuclear waste is stored, consistent with

1 the principles and procedures stated in Department  
2 of Energy Order No. 460.2 and the Program Man-  
3 ager's Guide.

4 (2) REQUIREMENTS.—A shipping campaign  
5 transportation plan shall—

6 (A) be fully integrated with State and trib-  
7 al government notification, inspection, and  
8 emergency response plans along the preferred  
9 shipping route or State-designated alternative  
10 route identified under subsection (d) (unless the  
11 Secretary certifies in the plan that the State or  
12 tribal government has failed to cooperate in  
13 fully integrating the shipping campaign trans-  
14 portation plan with the applicable State or trib-  
15 al government plans); and

16 (B) be consistent with the principles and  
17 procedures developed for the safe transportation  
18 of transuranic waste to the Waste Isolation  
19 Pilot Plant (unless the Secretary certifies in the  
20 plan that a specific principle or procedure is in-  
21 consistent with a provision of this Act).

22 (d) SAFE SHIPPING ROUTES AND MODES.—

23 (1) IN GENERAL.—The Secretary shall evaluate  
24 the relative safety of the proposed shipping routes  
25 and shipping modes from each shipping origin to the

1 repository compared with the safety of alternative  
2 modes and routes.

3 (2) CONSIDERATIONS.—The evaluation under  
4 paragraph (1) shall be conducted in a manner con-  
5 sistent with regulations promulgated by the Sec-  
6 retary of Transportation under authority of chapter  
7 51 of title 49, United States Code, and the Nuclear  
8 Regulatory Commission under authority of the  
9 Atomic Energy Act of 1954 (42 U.S.C. 2011 et  
10 seq.), as applicable.

11 (3) DESIGNATION OF PREFERRED SHIPPING  
12 ROUTE AND MODE.—Following the evaluation under  
13 paragraph (1), the Secretary shall designate pre-  
14 ferred shipping routes and modes from each civilian  
15 nuclear power reactor and Department of Energy fa-  
16 cility that stores spent nuclear fuel or other high-  
17 level defense waste.

18 (4) SELECTION OF PRIMARY SHIPPING  
19 ROUTE.—If the Secretary designates more than 1  
20 preferred route under paragraph (3), the Secretary  
21 shall elect a primary route after considering, at a  
22 minimum, historical accident rates, population, sig-  
23 nificant hazards, shipping time, shipping distance,  
24 and mitigating measures such as limits on the speed  
25 of shipments.

1           (5) USE OF PRIMARY SHIPPING ROUTE AND  
2           MODE.—Except in cases of emergency, for all ship-  
3           ments conducted under this Act, the Secretary shall  
4           cause the primary shipping route and mode or  
5           State-designated alternative route under chapter 51  
6           of title 49, United States Code, to be used. If a  
7           route is designated as a primary route for any reac-  
8           tor or Department of Energy facility, the Secretary  
9           may use that route to transport spent nuclear fuel  
10          or high-level radioactive waste from any other reac-  
11          tor or Department of Energy facility.

12          (6) TRAINING AND TECHNICAL ASSISTANCE.—  
13          Following selection of the primary shipping routes,  
14          or State-designated alternative routes, the Secretary  
15          shall focus training and technical assistance under  
16          section 202(c) on those routes.

17          (7) PREFERRED RAIL ROUTES.—

18                (A) REGULATION.—Not later than 1 year  
19                after the date of enactment of the Nuclear  
20                Waste Policy Amendments Act of 1999, the  
21                Secretary of Transportation, pursuant to au-  
22                thority under other provisions of law, shall pro-  
23                mulgate a regulation establishing procedures for  
24                the selection of preferred routes for the trans-

1 portation of spent nuclear fuel and high-level  
2 radioactive waste by rail.

3 (B) INTERIM PROVISION.—During the pe-  
4 riod beginning on the date of enactment of the  
5 Nuclear Waste Policy Act of 1999 and ending  
6 on the date of issuance of a final regulation  
7 under subparagraph (A), rail transportation of  
8 spent nuclear fuel and high-level radioactive  
9 waste shall be conducted in accordance with  
10 regulatory requirements in effect on that date  
11 and with this section.

12 **SEC. 202. TRANSPORTATION REQUIREMENTS.**

13 (a) PACKAGE CERTIFICATION.—No spent nuclear  
14 fuel or high-level radioactive waste may be transported by  
15 or for the Secretary under this Act except in packages that  
16 have been certified for such purposes by the Commission.

17 (b) STATE NOTIFICATION.—The Secretary shall  
18 abide by regulations of the Commission regarding advance  
19 notification of State and tribal governments prior to trans-  
20 portation of spent nuclear fuel or high-level radioactive  
21 waste under this Act.

22 (c) TECHNICAL ASSISTANCE.—

23 (1) IN GENERAL.—

24 (A) STATES AND INDIAN TRIBES.—As pro-  
25 vided in paragraph (3), the Secretary shall pro-

1           vide technical assistance and funds to States  
2           and Indian tribes for training of public safety  
3           officials of appropriate units of State, local, and  
4           tribal government. A State shall allocate to  
5           local governments within the State a portion of  
6           any funds that the Secretary provides to the  
7           State for technical assistance and funding.

8           (B) EMPLOYEE ORGANIZATIONS.—The  
9           Secretary shall provide technical assistance and  
10          funds for training directly to nonprofit em-  
11          ployee organizations, voluntary emergency re-  
12          sponse organizations, and joint labor-manage-  
13          ment organizations that demonstrate experience  
14          in implementing and operating worker health  
15          and safety training and education programs  
16          and demonstrate the ability to reach and in-  
17          volve in training programs target populations of  
18          workers who are or will be directly engaged in  
19          the transportation of spent nuclear fuel and  
20          high-level radioactive waste or emergency re-  
21          sponse or post-emergency response with respect  
22          to such transportation.

23          (C) TRAINING.—Training under this  
24          section—

1 (i) shall cover procedures required for  
2 safe routine transportation of materials  
3 and procedures for dealing with emergency  
4 response situations;

5 (ii) shall be consistent with any train-  
6 ing standards established by the Secretary  
7 of Transportation under subsection (h);  
8 and

9 (iii) shall include—

10 (I) a training program applicable  
11 to persons responsible for responding  
12 to emergency situations occurring  
13 during the removal and transportation  
14 of spent nuclear fuel and high-level  
15 radioactive waste;

16 (II) instruction of public safety  
17 officers in procedures for the com-  
18 mand and control of the response to  
19 any accident involving the waste; and

20 (III) instruction of radiological  
21 protection and emergency medical per-  
22 sonnel in procedures for responding to  
23 an incident involving spent nuclear  
24 fuel or high-level radioactive waste  
25 being transported.



1 (2) NO SHIPMENTS IF NO TRAINING.—

2 (A) There shall be no shipments of spent  
3 nuclear fuel and high-level radioactive waste  
4 through the jurisdiction of any State or the res-  
5 ervation lands of any Indian tribe eligible for  
6 grants under paragraph (3)(B) until the Sec-  
7 retary has made a determination that personnel  
8 in all State, local, and tribal jurisdictions on  
9 primary and alternative shipping routes have  
10 met acceptable standards of training for emer-  
11 gency responses to accidents involving spent nu-  
12 clear fuel and high-level radioactive waste, as  
13 established by the Secretary, and unless tech-  
14 nical assistance and funds to implement proce-  
15 dures for the safe routine transportation and  
16 for dealing with emergency response situations  
17 under paragraph (1)(A) have been available to  
18 a State or Indian tribe for at least 3 years prior  
19 to any shipment: *Provided, however,* That the  
20 Secretary may ship spent nuclear fuel and high-  
21 level radioactive waste if technical assistance or  
22 funds have not been made available because of  
23 (i) an emergency, including the sud-  
24 den and unforeseen closure of a highway or  
25 rail line or the sudden and unforeseen need

1 to remove spent fuel from a reactor be-  
2 cause of an accident, or

3 (ii) the refusal to accept technical as-  
4 sistance by a State or Indian tribe, or

5 (iii) fraudulent actions which violate  
6 Federal law governing the expenditure of  
7 Federal funds.

8 (B) In the event the Secretary is required  
9 to transport spent fuel or high-level radioactive  
10 waste through a jurisdiction prior to 3 years  
11 after the provision of technical assistance or  
12 funds to such jurisdiction, the Secretary shall,  
13 prior to such shipment, hold meetings in each  
14 State and Indian reservation through which the  
15 shipping route passes in order to present initial  
16 shipment plans and receive comments. Depart-  
17 ment of Energy personnel trained in emergency  
18 response shall escort each shipment. Funds and  
19 all Department of Energy training resources  
20 shall be made available to States and Indian  
21 tribes along the shipping route no later than  
22 three months prior to the commencement of  
23 shipments: *Provided, however,* That in no event  
24 shall such shipments exceed 1,000 metric tons  
25 per year: *Provided further,* That no such ship-

1           ments shall be conducted more than four years  
2           after the effective date of the Nuclear Waste  
3           Policy Amendments Act of 1999.

4           (3) GRANTS.—

5           (A) IN GENERAL.—To implement this sec-  
6           tion, the Secretary may make expenditures  
7           from the Nuclear Waste Fund to the extent  
8           provided for in appropriation acts.

9           (B) GRANTS FOR DEVELOPMENT OF  
10          PLANS.—

11          (i) IN GENERAL.—The Secretary shall  
12          make a grant of at least \$150,000 to each  
13          State through the jurisdiction of which and  
14          each federally recognized Indian tribe  
15          through the reservation lands of which a  
16          shipment of spent nuclear fuel or high-level  
17          radioactive waste will be made under this  
18          Act for the purpose of developing a plan to  
19          prepare for such shipments.

20          (ii) LIMITATION.—A grant shall be  
21          made under clause (i) only to a State or a  
22          federally recognized Indian tribe that has  
23          the authority to respond to incidents in-  
24          volving shipments of hazardous material.

1 (C) GRANTS FOR IMPLEMENTATION OF  
2 PLANS.—

3 (i) IN GENERAL.—Annual implemen-  
4 tation grants shall be made to States and  
5 Indian tribes that have developed a plan to  
6 prepare for shipments under this Act  
7 under subparagraph (B). The Secretary, in  
8 submitting the annual departmental budg-  
9 et to Congress for funding of implementa-  
10 tion grants under this section, shall be  
11 guided by the State and tribal plans devel-  
12 oped under subparagraph (B). As part of  
13 the Department of Energy’s annual budget  
14 request, the Secretary shall report to Con-  
15 gress on—

16 (I) the funds requested by States  
17 and federally recognized Indian tribes  
18 to implement this subsection;

19 (II) the amount requested by the  
20 President for implementation; and

21 (III) the rationale for any dis-  
22 crepancies between the amounts re-  
23 quested by States and federally recog-  
24 nized Indian tribes and the amounts  
25 requested by the President.

1 (ii) ALLOCATION.—Of funds available  
2 for grants under this subparagraph for any  
3 fiscal year—

4 (I) 25 percent shall be allocated  
5 by the Secretary to ensure minimum  
6 funding and program capability levels  
7 in all States and Indian tribes based  
8 on plans developed under subpara-  
9 graph (B); and

10 (II) 75 percent shall be allocated  
11 to States and Indian tribes in propor-  
12 tion to the number of shipment miles  
13 that are projected to be made in total  
14 shipments under this Act through  
15 each jurisdiction.

16 (4) AVAILABILITY OF FUNDS FOR SHIP-  
17 MENTS.—Funds under paragraph (1) shall be pro-  
18 vided for shipments to a repository, regardless of  
19 whether the repository is operated by a private enti-  
20 ty or by the Department of Energy.

21 (5) MINIMIZING DUPLICATION OF EFFORT AND  
22 EXPENSES.—The Secretaries of Transportation,  
23 Labor, and Energy, Directors of the Federal Emer-  
24 gency Management Agency and National Institute of  
25 Environmental Health Sciences, the Nuclear Regu-

1 latory Commission, and Administrator of the Envi-  
2 ronmental Protection Agency shall review periodi-  
3 cally, with the head of each department, agency, or  
4 instrumentality of the Government, all emergency re-  
5 sponse and preparedness training programs of that  
6 department, agency, or instrumentality to minimize  
7 duplication of effort and expense of the department,  
8 agency, or instrumentality in carrying out the pro-  
9 grams and shall take necessary action to minimize  
10 duplication.

11 (d) PUBLIC EDUCATION.—The Secretary shall con-  
12 duct a program to educate the public regarding the trans-  
13 portation of spent nuclear fuel and high-level radioactive  
14 waste, with an emphasis on those States, units of local  
15 government, and Indian tribes through whose jurisdiction  
16 the Secretary plans to transport substantial amounts of  
17 spent nuclear fuel or high-level radioactive waste.

18 (e) USE OF PRIVATE CARRIERS.—The Secretary, in  
19 providing for the transportation of spent nuclear fuel and  
20 high-level radioactive waste under this Act, shall contract  
21 with private industry to the fullest extent possible in each  
22 aspect of such transportation. The Secretary shall use di-  
23 rect Federal services for such transportation only upon a  
24 determination by the Secretary of Transportation, in con-  
25 sultation with the Secretary, that private industry is un-

1 able or unwilling to provide such transportation services  
2 at a reasonable cost.

3 (f) COMPLIANCE WITH TRANSPORTATION REGULA-  
4 TIONS.—Any person that transports spent nuclear fuel or  
5 high-level radioactive waste under the Nuclear Waste Pol-  
6 icy Amendments Act of 1999, pursuant to a contract with  
7 the Secretary, shall comply with all requirements gov-  
8 erning such transportation issued by the Federal, State,  
9 and local governments, and Indian Tribes, in the same  
10 way and to the same extent that any person engaging in  
11 that transportation that is in or affects interstate com-  
12 merce must comply with such requirements, as required  
13 by section 5126 of title 49, United States Code.

14 (g) EMPLOYEE PROTECTION.—Any person engaged  
15 in the interstate commerce of spent nuclear fuel or high-  
16 level radioactive waste under contract to the Secretary  
17 pursuant to this Act shall be subject to and comply fully  
18 with the employee protection provisions of section 20109  
19 of title 49, United States Code (in the case of employees  
20 of railroad carriers) and section 31105 of title 49, United  
21 States Code (in the case of employees operating commer-  
22 cial motor vehicles), or the Commission (in the case of all  
23 other employees).

24 (h) TRAINING STANDARD.—

1           (1) REGULATION.—No later than 12 months  
2 after the date of enactment of the Nuclear Waste  
3 Policy Amendments Act of 1999, the Secretary of  
4 Transportation, pursuant to authority under other  
5 provisions of law, in consultation with the Secretary  
6 of Labor and the Commission, shall promulgate a  
7 regulation establishing training standards applicable  
8 to workers directly involved in the removal and  
9 transportation of spent nuclear fuel and high-level  
10 radioactive waste. The regulation shall specify min-  
11 imum training standards applicable to workers, in-  
12 cluding managerial personnel. The regulation shall  
13 require that the employer possess evidence of satis-  
14 faction of the applicable training standard before  
15 any individual may be employed in the removal and  
16 transportation of spent nuclear fuel and high-level  
17 radioactive waste.

18           (2) SECRETARY OF TRANSPORTATION.—If the  
19 Secretary of Transportation determines, in promul-  
20 gating the regulation required by paragraph (1),  
21 that existing Federal regulations establish adequate  
22 training standards for workers, then the Secretary  
23 of Transportation can refrain from promulgating ad-  
24 ditional regulations with respect to worker training  
25 in such activities. The Secretary of Transportation



1 and the Commission shall, by Memorandum of Un-  
2 derstanding, ensure coordination of worker training  
3 standards and to avoid duplicative regulation.

4 (3) TRAINING STANDARDS CONTENT.—(A) If  
5 training standards are required to be promulgated  
6 under paragraph (1), such standards shall, among  
7 other things deemed necessary and appropriate by  
8 the Secretary of Transportation, provide for—

9 (i) a specified minimum number of hours  
10 of initial off site instruction and actual field ex-  
11 perience under the direct supervision of a  
12 trained, experienced supervisor;

13 (ii) a requirement that onsite managerial  
14 personnel receive the same training as workers,  
15 and a minimum number of additional hours of  
16 specialized training pertinent to their manage-  
17 rial responsibilities; and

18 (iii) a training program applicable to per-  
19 sons responsible for responding to and cleaning  
20 up emergency situations occurring during the  
21 removal and transportation of spent nuclear  
22 fuel and high-level radioactive waste.

23 (B) The Secretary of Transportation may speci-  
24 fy an appropriate combination of knowledge, skills,

1 and prior training to fulfill the minimum number of  
2 hours requirements of subparagraphs (i) and (ii).

3 (4) EMERGENCY RESPONDER TRAINING STAND-  
4 ARDS.—The training standards for persons respon-  
5 sible for responding to emergency situations occur-  
6 ring during the removal and transportation of spent  
7 nuclear and high level radioactive waste shall, in ac-  
8 cordance with existing regulations, ensure their abil-  
9 ity to protect nearby persons, property, or the envi-  
10 ronment from the effects of accidents involving spent  
11 nuclear fuel and high-level radioactive waste.

12 (5) AUTHORIZATION.—There is authorized to  
13 be appropriated to the Secretary of Transportation,  
14 from general revenues, such sums as may be nec-  
15 essary to perform his duties under this subsection.

16 **TITLE III—DEVELOPMENT OF**  
17 **NATIONAL SPENT NUCLEAR**  
18 **FUEL STRATEGY.**

19 **SEC. 301. FINDINGS.**

20 (a) Prior to permanent closure of the geologic reposi-  
21 tory in Yucca Mountain, Congress must determine wheth-  
22 er the spent fuel in the repository should be treated as  
23 waste subject to permanent burial or should be considered  
24 an energy resource that is needed to meet future energy  
25 requirements;

1 (b) Future use of nuclear energy may require con-  
2 struction of a second geologic repository unless Yucca  
3 Mountain can safely accommodate additional spent fuel.  
4 Improved spent fuel strategies may increase the capacity  
5 of Yucca Mountain.

6 (c) Prior to construction of any second permanent  
7 geologic repository, the nation's current plans for perma-  
8 nent burial of spent fuel should be re-evaluated.

9 **SEC. 302. OFFICE OF SPENT NUCLEAR FUEL RESEARCH.**

10 (a) ESTABLISHMENT.—There is hereby established  
11 an Office of Spent Nuclear Fuel Research within the Of-  
12 fice of Nuclear Energy Science and Technology of the De-  
13 partment of Energy. The Office shall be headed by the  
14 Associate Director, who shall be a member of the Senior  
15 Executive Service appointed by the Director of the Office  
16 of Nuclear Energy Science and Technology, and com-  
17 pensated at a rate determined by applicable law.

18 (b) ASSOCIATE DIRECTOR.—The Associate Director  
19 of the Office of Spent Nuclear Fuel Research shall be re-  
20 sponsible for carrying out an integrated research, develop-  
21 ment, and demonstration program on technologies for  
22 treatment, recycling, and disposal of high-level nuclear ra-  
23 dioactive waste and spent nuclear fuel, subject to the gen-  
24 eral supervision of the Secretary. The Associate Director  
25 of the Office shall report to the Director of the Office of

1 Nuclear Energy Science and Technology. The first such  
2 Associate Director shall be appointed within 90 days of  
3 the enactment of the Nuclear Waste Policy Act of 1999.

4 (c) GRANT AND CONTRACT AUTHORITY.—In car-  
5 rying out his responsibilities under this Section, the Sec-  
6 retary may make grants, or enter into contracts, for the  
7 purposes of the research projects and activities described  
8 in (d)(2).

9 (d)(1) DUTIES.—The Associate Director of the Office  
10 shall involve national laboratories, universities, the com-  
11 mercial nuclear industry, and other organizations to inves-  
12 tigate technologies for the treatment, recycling, and dis-  
13 posal of spent nuclear fuel and high-level radioactive  
14 waste.

15 (2) The Associate Director of the Office shall:

16 (A) develop a research plan to provide rec-  
17 ommendations by 2015;

18 (B) identify promising technologies for the  
19 treatment, recycling, and disposal of spent nuclear  
20 fuel and high-level radioactive waste;

21 (C) conduct research and development activities  
22 for promising technologies;

23 (D) ensure that all activities include as key ob-  
24 jectives minimization of proliferation concerns and

1 risk to health of the general public or site workers,  
2 as well as development of cost-effective technologies;

3 (E) require research on both reactor- and accel-  
4 erator-based transmutation systems;

5 (F) require research on advanced processing  
6 and separations;

7 (G) encourage that research efforts include par-  
8 ticipation of international collaborators;

9 (H) be authorized to fund international collabo-  
10 rators when they bring unique capabilities not avail-  
11 able in the United States and their host country is  
12 unable to provide for their support;

13 (I) ensure that research efforts with this Office  
14 are coordinated with research on advanced fuel cy-  
15 cles and reactors conducted within the Office of Nu-  
16 clear Energy Science and Technology.

17 (e) REPORT.—The Associate Director of the Office  
18 of Spent Nuclear Fuel Research shall annually prepare  
19 and submit a report to the Congress on the activities and  
20 expenditures of the Office that discusses progress being  
21 made in achieving the objectives of paragraph (b).