

Calendar No. 180

106TH CONGRESS
1ST Session

S. 1287

[Report No. 106-98]

A BILL

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

JUNE 24, 1999

Read twice and placed on the calendar

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

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

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.

(2) NO SHIPMENTS IF NO TRAINING.—

(A) There shall be no shipments of spent nuclear fuel and high-level radioactive waste through the jurisdiction of any State or the reservation lands of any Indian tribe eligible for grants under paragraph (3)(B) until the Secretary has made a determination that personnel in all State, local, and tribal jurisdictions on primary and alternative shipping routes have met acceptable standards of training for emergency responses to accidents involving spent nuclear fuel and high-level radioactive waste, as established by the Secretary, and unless technical assistance and funds to implement procedures for the safe routine transportation and for dealing with emergency response situations under paragraph (1)(A) have been available to a State or Indian tribe for at least 3 years prior to any shipment: *Provided, however,* That the Secretary may ship spent nuclear fuel and high-level radioactive waste if technical assistance or funds have not been made available because of

(i) an emergency, including the sudden and unforeseen closure of a highway or 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-

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

(3) GRANTS.—

(A) IN GENERAL.—To implement this section, the Secretary may make expenditures from the Nuclear Waste Fund to the extent provided for in appropriation acts.

(B) GRANTS FOR DEVELOPMENT OF PLANS.—

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

(ii) LIMITATION.—A grant shall be made under clause (i) only to a State or a federally recognized Indian tribe that has the authority to respond to incidents involving shipments of hazardous material.

(C) GRANTS FOR IMPLEMENTATION OF
PLANS.—

(i) IN GENERAL.—Annual implementation grants shall be made to States and Indian tribes that have developed a plan to prepare for shipments under this Act under subparagraph (B). The Secretary, in submitting the annual departmental budget to Congress for funding of implementation grants under this section, shall be guided by the State and tribal plans developed under subparagraph (B). As part of the Department of Energy’s annual budget request, the Secretary shall report to Congress on—

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

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

(III) the rationale for any discrepancies between the amounts requested by States and federally recognized Indian tribes and the amounts 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).