

any potential economic or public health and safety impacts in all stages of the siting, development, construction, and operation of a test and evaluation facility;

(B) solicits, receives, and evaluates concerns and objections of such Governor or governing body with regard to such test and evaluation facility on an ongoing basis; and

(C) works diligently and cooperatively to resolve such concerns and objections; and

(2) by which the State or affected Indian tribe involved can exercise reasonable independent monitoring and testing of onsite activities related to all stages of the siting, development, construction and operation of the test and evaluation facility, except that any such monitoring and testing shall not unreasonably interfere with onsite activities.

**(b) Written agreements**

The Secretary shall enter into written agreements with the Governor of the State in which an identified site is located or with the governing body of any affected Indian tribe where an identified site is located in order to expedite the consultation and cooperation process. Any such written agreement shall specify—

(1) procedures by which such Governor or governing body may study, determine, comment on, and make recommendations with regard to the possible health, safety, and economic impacts of the test and evaluation facility;

(2) procedures by which the Secretary shall consider and respond to comments and recommendations made by such Governor or governing body, including the period in which the Secretary shall so respond;

(3) the documents the Department is to submit to such Governor or governing body, the timing for such submissions, the timing for such Governor or governing body to identify public health and safety concerns and the process to be followed to try to eliminate those concerns;

(4) procedures by which the Secretary and either such Governor or governing body may review or modify the agreement periodically; and

(5) procedures for public notification of the procedures specified under subparagraphs (A) through (D).

**(c) Limitation**

Except as specifically provided in this section, nothing in this subchapter is intended to grant any State or affected Indian tribe any authority with respect to the siting, development, or loading of the test and evaluation facility.

(Pub. L. 97-425, title II, §215, Jan. 7, 1983, 96 Stat. 2247.)

**§ 10196. Federal agency actions**

**(a) Cooperation and coordination**

Federal agencies shall assist the Secretary by cooperating and coordinating with the Secretary in the preparation of any necessary reports under this subchapter and the mission plan under section 10221 of this title.

**(b) Environmental review**

(1) No action of the Secretary or any other Federal agency required by this subchapter or

section 10221 of this title with respect to a test and evaluation facility to be taken prior to the initiation of onsite construction of a test and evaluation facility shall require the preparation of an environmental impact statement under section 102(2)(C) of the Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)), or to require the preparation of environmental reports, except as otherwise specifically provided for in this subchapter.

(2) The Secretary and the heads of all other Federal agencies shall, to the maximum extent possible, avoid duplication of efforts in the preparation of reports under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(Pub. L. 97-425, title II, §216, Jan. 7, 1983, 96 Stat. 2248.)

**Editorial Notes**

REFERENCES IN TEXT

The National Environmental Policy Act of 1969, referred to in subsec. (b)(2), is Pub. L. 91-190, Jan. 1, 1970, 83 Stat. 852, which is classified generally to chapter 55 (§4321 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 4321 of this title and Tables.

**§ 10197. Research and development on disposal of high-level radioactive waste**

**(a) Purpose**

Not later than 64 months after January 7, 1983, the Secretary is authorized to, to the extent practicable, begin at a site evaluated under section 10194 of this title, as part of and as an extension of siting research activities of such site under such section, the mining and construction of a test and evaluation facility. Prior to the mining and construction of such facility, the Secretary shall prepare an environmental assessment. The purpose of such facility shall be—

(1) to supplement and focus the repository site characterization process;

(2) to provide the conditions under which known technological components can be integrated to demonstrate a functioning repository-like system;

(3) to provide a means of identifying, evaluating, and resolving potential repository licensing issues that could not be resolved during the siting research program conducted under section 10192<sup>1</sup> of this title;

(4) to validate, under actual conditions, the scientific models used in the design of a repository;

(5) to refine the design and engineering of repository components and systems and to confirm the predicted behavior of such components and systems;

(6) to supplement the siting data, the generic and specific geological characteristics developed under section 10194 of this title relating to isolating disposal materials in the physical environment of a repository;

(7) to evaluate the design concepts for packaging, handling, and emplacement of high-level radioactive waste and spent nuclear fuel at the design rate; and

<sup>1</sup> So in original. Probably should be "10194".

(8) to establish operating capability without exposing workers to excessive radiation.

**(b) Design**

The Secretary shall design each test and evaluation facility—

(1) to be capable of receiving not more than 100 full-sized canisters of solidified high-level radioactive waste (which canisters shall not exceed an aggregate weight of 100 metric tons), except that spent nuclear fuel may be used instead of such waste if such waste cannot be obtained under reasonable conditions;

(2) to permit full retrieval of solidified high-level radioactive waste, or other radioactive material used by the Secretary for testing, upon completion of the technology demonstration activities; and

(3) based upon the principle that the high-level radioactive waste, spent nuclear fuel, or other radioactive material involved shall be isolated from the biosphere in such a way that the initial isolation is provided by engineered barriers functioning as a system with the geologic environment.

**(c) Operation**

(1) Not later than 88 months after January 7, 1983, the Secretary shall begin an in situ testing program at the test and evaluation facility in accordance with the mission plan developed under section 10221 of this title, for purposes of—

(A) conducting in situ tests of bore hole sealing, geologic media fracture sealing, and room closure to establish the techniques and performance for isolation of high-level radioactive waste, spent nuclear fuel, or other radioactive materials from the biosphere;

(B) conducting in situ tests with radioactive sources and materials to evaluate and improve reliable models for radionuclide migration, absorption, and containment within the engineered barriers and geologic media involved, if the Secretary finds there is reasonable assurance that such radioactive sources and materials will not threaten the use of such site as a repository;

(C) conducting in situ tests to evaluate and improve models for ground water or brine flow through fractured geologic media;

(D) conducting in situ tests under conditions representing the real time and the accelerated time behavior of the engineered barriers within the geologic environment involved;

(E) conducting in situ tests to evaluate the effects of heat and pressure on the geologic media involved, on the hydrology of the surrounding area, and on the integrity of the disposal packages;

(F) conducting in situ tests under both normal and abnormal repository conditions to establish safe design limits for disposal packages and to determine the effects of the gross release of radionuclides into surroundings, and the effects of various credible failure modes, including—

(i) seismic events leading to the coupling of aquifers through the test and evaluation facility;

(ii) thermal pulses significantly greater than the maximum calculated; and

(iii) human intrusion creating a direct pathway to the biosphere; and

(G) conducting such other research and development activities as the Secretary considers appropriate, including such activities necessary to obtain the use of high-level radioactive waste, spent nuclear fuel, or other radioactive materials (such as any highly radioactive material from the Three Mile Island nuclear powerplant or from the West Valley Demonstration Project) for test and evaluation purposes, if such other activities are reasonably necessary to support the repository program and if there is reasonable assurance that the radioactive sources involved will not threaten the use of such site as a repository.

(2) The in situ testing authorized in this subsection shall be designed to ensure that the suitability of the site involved for licensing by the Commission as a repository will not be adversely affected.

**(d) Use of existing Department facilities**

During the conducting of siting research activities under section 10194 of this title and for such period thereafter as the Secretary considers appropriate, the Secretary shall use Department facilities owned by the Federal Government on January 7, 1983, for the conducting of generically applicable tests regarding packaging, handling, and emplacement technology for solidified high-level radioactive waste and spent nuclear fuel from civilian nuclear activities.

**(e) Engineered barriers**

The system of engineered barriers and selected geology used in a test and evaluation facility shall have a design life at least as long as that which the Commission requires by regulations issued under this chapter, or under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), for repositories.

**(f) Role of Commission**

(1)(A) Not later than 1 year after January 7, 1983, the Secretary and the Commission shall reach a written understanding establishing the procedures for review, consultation, and coordination in the planning, construction, and operation of the test and evaluation facility under this section. Such understanding shall establish a schedule, consistent with the deadlines set forth in this subchapter,<sup>2</sup> for submission by the Secretary of, and review by the Commission of and necessary action on—

(i) the mission plan prepared under section 10221 of this title; and

(ii) such reports and other information as the Commission may reasonably require to evaluate any health and safety impacts of the test and evaluation facility.

(B) Such understanding shall also establish the conditions under which the Commission may have access to the test and evaluation facility for the purpose of assessing any public health and safety concerns that it may have. No shafts may be excavated for the test and evaluation until the Secretary and the Commission enter into such understanding.

(2) Subject to section 10225 of this title, the test and evaluation facility, and the facilities

<sup>2</sup> See References in Text note below.

authorized in this section, shall be constructed and operated as research, development, and demonstration facilities, and shall not be subject to licensing under section 5842 of this title.

(3)(A) The Commission shall carry out a continuing analysis of the activities undertaken under this section to evaluate the adequacy of the consideration of public health and safety issues.

(B) The Commission shall report to the President, the Secretary, and the Congress as the Commission considers appropriate with respect to the conduct of activities under this section.

**(g) Environmental review**

The Secretary shall prepare an environmental impact statement under section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) prior to conducting tests with radioactive materials at the test and evaluation facility. Such environmental impact statement shall incorporate, to the extent practicable, the environmental assessment prepared under subsection (a). Nothing in this subsection may be construed to limit siting research activities conducted under section 10194 of this title. This subsection shall apply only to activities performed exclusively for a test and evaluation facility.

**(h) Limitations**

(1) If the test and evaluation facility is not located at the site of a repository, the Secretary shall obtain the concurrence of the Commission with respect to the decontamination and decommissioning of such facility.

(2) If the test and evaluation facility is not located at a candidate site or repository site, the Secretary shall conduct only the portion of the in situ testing program required in subsection (c) determined by the Secretary to be useful in carrying out the purposes of this chapter.

(3) The operation of the test and evaluation facility shall terminate not later than—

(A) 5 years after the date on which the initial repository begins operation; or

(B) at such time as the Secretary determines that the continued operation of a test and evaluation facility is not necessary for research, development, and demonstration purposes;

whichever occurs sooner.

(4) Notwithstanding any other provisions of this subsection, as soon as practicable following any determination by the Secretary, with the concurrence of the Commission, that the test and evaluation facility is unsuitable for continued operation, the Secretary shall take such actions as are necessary to remove from such site any radioactive material placed on such site as a result of testing and evaluation activities conducted under this section. Such requirement may be waived if the Secretary, with the concurrence of the Commission, finds that short-term testing and evaluation activities using radioactive material will not endanger the public health and safety.

(Pub. L. 97-425, title II, §217, Jan. 7, 1983, 96 Stat. 2249.)

**Editorial Notes**

REFERENCES IN TEXT

The Atomic Energy Act of 1954, referred to in subsec. (e), is act Aug. 1, 1946, ch. 724, as added by act Aug. 30, 1954, ch. 1073, §1, 68 Stat. 919, which is classified principally to chapter 23 (§2011 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 2011 of this title and Tables.

This subchapter, referred to in subsec. (f)(1)(A), was in the original “this subtitle”, and was translated as this subchapter to reflect the probable intent of Congress because title II of Pub. L. 97-425, which enacted this subchapter, does not contain subtitles.

**§ 10198. Research and development on spent nuclear fuel**

**(a) Demonstration and cooperative programs**

The Secretary shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission. Not later than 1 year after January 7, 1983, the Secretary shall select at least 1, but not more than 3, sites evaluated under section 10194 of this title at such power reactors. In selecting such site or sites, the Secretary shall give preference to civilian nuclear power reactors that will soon have a shortage of interim storage capacity for spent nuclear fuel. Subject to reaching agreement as provided in subsection (b), the Secretary shall undertake activities to assist such power reactors with demonstration projects at such sites, which may use one of the following types of alternate storage technologies: spent nuclear fuel storage casks, caissons, or silos. The Secretary shall also undertake a cooperative program with civilian nuclear power reactors to encourage the development of the technology for spent nuclear fuel rod consolidation in existing power reactor water storage basins.

**(b) Cooperative agreements**

To carry out the programs described in subsection (a), the Secretary shall enter into a cooperative agreement with each utility involved that specifies, at a minimum, that—

(1) such utility shall select the alternate storage technique to be used, make the land and spent nuclear fuel available for the dry storage demonstration, submit and provide site-specific documentation for a license application to the Commission, obtain a license relating to the facility involved, construct such facility, operate such facility after licensing, pay the costs required to construct such facility, and pay all costs associated with the operation and maintenance of such facility;

(2) the Secretary shall provide, on a cost-sharing basis, consultative and technical assistance, including design support and generic licensing documentation, to assist such utility in obtaining the construction authorization and appropriate license from the Commission; and