

## CODIFICATION

Section was formerly classified to section 7272 of Title 42, The Public Health and Welfare, prior to renumbering by Pub. L. 108-136.

## PRIOR PROVISIONS

Provisions similar to those in this section were contained in the following appropriations act:

Pub. L. 96-164, title II, § 210, Dec. 29, 1979, 93 Stat. 1264.

## AMENDMENTS

2013—Pub. L. 113-66 inserted “; 94 Stat. 3197” after “Public Law 96-540”.

2003—Pub. L. 108-136, § 3131(d)(4)(C)(iii), substituted “the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1981 (Public Law 96-540) or any other Act” for “this or any other Act”.

## TRANSFER OF FUNCTIONS

For transfer of certain functions from Nuclear Regulatory Commission to Chairman thereof, see Reorg. Plan No. 1 of 1980, 45 F.R. 40561, 94 Stat. 3585, set out as a note under section 5841 of Title 42, The Public Health and Welfare.

## § 2514. Transferred

## CODIFICATION

Section, Pub. L. 112-81, div. A, title X, § 1077, Dec. 31, 2011, 125 Stat. 1596, which related to reports to Congress on the modification of the force structure for the strategic nuclear weapons delivery systems of the United States, was transferred to section 493 of Title 10, Armed Forces, by Pub. L. 112-239, div. A, title X, § 1031(b)(3)(B)(i)-(iii), Jan. 2, 2013, 126 Stat. 1918.

## § 2515. Establishment of Center for Security Technology, Analysis, Response, and Testing

## (a) Establishment

The Administrator for Nuclear Security shall establish within the nuclear security enterprise (as defined in section 2501 of this title) a Center for Security Technology, Analysis, Response, and Testing.

## (b) Duties

The center established under subsection (a) shall carry out the following:

- (1) Provide to the Administrator, the Chief of Defense Nuclear Security, and the management and operating contractors of the nuclear security enterprise a wide range of objective expertise on security technologies, systems, analysis, testing, and response forces.
- (2) Assist the Administrator in developing standards, requirements, analysis methods, and testing criteria with respect to security.
- (3) Collect, analyze, and distribute lessons learned with respect to security.
- (4) Support inspections and oversight activities with respect to security.
- (5) Promote professional development and training for security professionals.
- (6) Provide for advance and bulk procurement for security-related acquisitions that affect multiple facilities of the nuclear security enterprise.
- (7) Advocate for continual improvement and security excellence throughout the nuclear security enterprise.
- (8) Such other duties as the Administrator may assign.

(Pub. L. 113-66, div. C, title XXXI, § 3116, Dec. 26, 2013, 127 Stat. 1058.)

## CODIFICATION

Section was enacted as part of the National Defense Authorization Act for Fiscal Year 2014, and not as part of the Atomic Energy Defense Act which comprises this chapter.

SUBCHAPTER II—NUCLEAR WEAPONS  
STOCKPILE MATTERSPART A—STOCKPILE STEWARDSHIP AND WEAPONS  
PRODUCTION

## § 2521. Stockpile stewardship program

## (a) Establishment

The Secretary of Energy, acting through the Administrator, shall establish a stewardship program to ensure—

- (1) the preservation of the core intellectual and technical competencies of the United States in nuclear weapons, including weapons design, system integration, manufacturing, security, use control, reliability assessment, and certification; and
- (2) that the nuclear weapons stockpile is safe, secure, and reliable without the use of underground nuclear weapons testing.

## (b) Program elements

The program shall include the following:

- (1) An increased level of effort for advanced computational capabilities to enhance the simulation and modeling capabilities of the United States with respect to the performance over time of nuclear weapons.
- (2) An increased level of effort for above-ground experimental programs, such as hydrotesting, high-energy lasers, inertial confinement fusion, plasma physics, and materials research.
- (3) Support for new facilities construction projects that contribute to the experimental capabilities of the United States, such as an advanced hydrodynamics facility, the National Ignition Facility, and other facilities for above-ground experiments to assess nuclear weapons effects.
- (4) Support for the use of, and experiments facilitated by, the advanced experimental facilities of the United States, including—
  - (A) the National Ignition Facility at Lawrence Livermore National Laboratory;
  - (B) the Dual Axis Radiographic Hydrodynamic Test Facility at Los Alamos National Laboratory;
  - (C) the Z Machine at Sandia National Laboratories; and
  - (D) the experimental facilities at the Nevada National Security Site.
- (5) Support for the sustainment and modernization of facilities with production and manufacturing capabilities that are necessary to ensure the safety, security, and reliability of the nuclear weapons stockpile, including—
  - (A) the nuclear weapons production facilities; and
  - (B) production and manufacturing capabilities resident in the national security laboratories.

(Pub. L. 107–314, div. D, title XLII, § 4201, formerly Pub. L. 103–160, div. C, title XXXI, § 3138, Nov. 30, 1993, 107 Stat. 1946; Pub. L. 105–85, div. C, title XXXI, § 3152(e), Nov. 18, 1997, 111 Stat. 2042; renumbered Pub. L. 107–314, div. D, title XLII, § 4201, by Pub. L. 108–136, div. C, title XXXI, § 3141(e)(2), Nov. 24, 2003, 117 Stat. 1758; Pub. L. 111–84, div. C, title XXXI, § 3111, Oct. 28, 2009, 123 Stat. 2702; Pub. L. 112–239, div. C, title XXXI, § 3131(b), (bb)(1)(C), Jan. 2, 2013, 126 Stat. 2180, 2185; Pub. L. 113–66, div. C, title XXXI, § 3146(c)(1), Dec. 26, 2013, 127 Stat. 1073.)

#### CODIFICATION

Section was formerly set out as a note under section 2121 of Title 42, The Public Health and Welfare, prior to renumbering by Pub. L. 108–136.

#### AMENDMENTS

2013—Subsec. (a). Pub. L. 113–66, § 3146(c)(1)(A), struck out “for Nuclear Security” after “Administrator” in introductory provisions.

Subsec. (b)(4)(D). Pub. L. 113–66, § 3146(c)(1)(B)(i), which directed substitution of “Nevada National Security Site” for “Nevada national security site”, could not be executed because the words “Nevada National Security Site” already appeared in text after the amendment by Pub. L. 112–239, § 3131(bb)(1)(C). See below.

Pub. L. 112–239, § 3131(bb)(1)(C), which directed substitution of “Nevada National Security Site” for “Nevada Test Site”, was executed by making the substitution for “Nevada test site”, to reflect the probable intent of Congress.

Subsec. (b)(5). Pub. L. 113–66, § 3146(c)(1)(B)(ii), added subpar. (A), redesignated subpar. (E) as (B), and struck out former subpars. (A) to (D) which read as follows:

“(A) the Pantex Plant;

“(B) the Y–12 National Security Complex;

“(C) the Kansas City Plant;

“(D) the Savannah River Site; and”.

Subsec. (b)(5)(E). Pub. L. 112–239, § 3131(b), struck out “(as defined in section 2471 of this title)” after “laboratories”.

2009—Subsec. (a). Pub. L. 111–84, § 3111(a), amended subsec. (a) generally. Prior to amendment, text read as follows: “The Secretary of Energy shall establish a stewardship program to ensure the preservation of the core intellectual and technical competencies of the United States in nuclear weapons, including weapons design, system integration, manufacturing, security, use control, reliability assessment, and certification.”

Subsec. (b)(1). Pub. L. 111–84, § 3111(b)(1), substituted “performance over time” for “detonation”.

Subsec. (b)(4), (5). Pub. L. 111–84, § 3111(b)(2), added pars. (4) and (5).

Subsec. (c). Pub. L. 111–84, § 3111(c), struck out subsec. (c). Text read as follows: “Of funds authorized to be appropriated to the Secretary of Energy for fiscal year 1994 for weapons activities, \$157,400,000 shall be available for the stewardship program established under subsection (a).”

1997—Subsec. (d). Pub. L. 105–85, which directed amendment of this section by striking out subsecs. (d) and (e), redesignating subsecs. (f) to (h) as (d) to (f), respectively, and striking out “and the 60-day period referred to in subsection (e)(2)(A)(ii)” in subsec. (e), as so redesignated, was executed by striking out subsec. (d) which directed President to report to Congress, because this section did not contain subsecs. (e) to (g).

#### NUCLEAR WARHEAD DESIGN COMPETITION

Pub. L. 115–91, div. C, title XXXI, § 3118, Dec. 12, 2017, 131 Stat. 1890, provided that:

“(a) FINDINGS.—Congress finds the following:

“(1) In January 2016, the co-chairs of a congressionally mandated study panel from the National Academies of Science testified to the following before the

Committee on Armed Services of the House of Representatives:

“(A) ‘The National Nuclear Security Administration (NNSA) complex must engage in robust design competitions in order to exercise the design and production skills that underpin stockpile stewardship and are necessary to meet evolving threats.’.

“(B) ‘To exercise the full set of design skills necessary for an effective nuclear deterrent, the NNSA should develop and conduct the first in what the committee envisions to be a series of design competitions that integrate the full end-to-end process from novel design conception through engineering, building, and non-nuclear testing of a prototype.’.

“(2) In March 2016 testimony before the Committee on Armed Services of the House of Representatives regarding a December 2016 Defense Science Board report entitled, ‘Seven Defense Priorities for the New Administration’, members of that Board said the following:

“(A) ‘A key contributor to nuclear deterrence is the continuous, adaptable exercise of the development, design, and production functions for nuclear weapons in both the DOD and DOE. . . . Yet the DOE laboratories and DOD contractor community have done little integrated design and development work outside of life extension for 25 years, let alone concept development that could serve as a hedge to surprise.’.

“(B) ‘The Defense Science Board believes that the triad’s complementary features remain robust tenets for the design of a future force. Replacing our current, aging force is essential, but not sufficient in the more complex nuclear environment we now face to provide the adaptability or flexibility to confidently hold at risk what adversaries value. In particular, if the threat evolves in ways that favorably change the cost/benefit calculus in the view of an adversary’s leadership, then we should be in a position to quickly restore a credible deterrence posture.’.

“(3) In a memorandum dated May 9, 2014, then-Secretary of Energy Ernie Moniz said the following:

“(A) ‘If nuclear military capabilities are to provide deterrence for the nation they need to be relevant to the emerging global strategic environment. The current stockpile was designed to meet the needs of a bipolar world with roots in the Cold War era. A more complex, chaotic, and dynamic security environment is emerging. In order to uphold the Department’s mission to ensure an effective nuclear deterrent. . . . we must ensure our nuclear capabilities meet the challenges of known and potential geopolitical and technological trends. Therefore we must look ahead, using the expertise of our laboratories, to how the capabilities that may be employed by other nations could impact deterrence over the next several decades.’.

“(B) ‘We must challenge our thinking about our programs of record in order to permit foresighted actions that may reduce, in the coming decades, the chances for surprise and that buttress deterrence.’.

“(b) DESIGN COMPETITION.—

“(1) IN GENERAL.—In accordance with paragraph (2), the Administrator for Nuclear Security, in coordination with the Chairman of the Nuclear Weapons Council, shall carry out a new and comprehensive design competition for a nuclear warhead that could be employed on ballistic missiles of the United States by 2030. Such competition shall—

“(A) examine options for warhead design and related delivery system requirements in the 2030s, including—

“(i) life extension of existing weapons;

“(ii) new capabilities; and

“(iii) such other concepts as the Administrator and the Chairman determine necessary to fully exercise and create responsive design capabilities in the enterprise and ensure a robust nuclear deterrent into the 2030s;

“(B) assess how the capabilities and defenses that may be employed by other countries could impact deterrence in 2030 and beyond and how such threats could be addressed or mitigated in the warhead and related delivery systems;

“(C) exercise the full set of design skills necessary for an effective nuclear deterrent and responsive enterprise through production of conceptual designs and, as the Administrator determines appropriate, production of non-nuclear prototypes of components or subsystems; and

“(D) examine and recommend actions for significantly shortening timelines and significantly reducing costs associated with design, development, certification, and production of the warhead, without reducing worker or public health and safety.

“(2) TIMING.—The Administrator shall—

“(A) during fiscal year 2018, develop a plan to carry out paragraph (1); and

“(B) during fiscal year 2019, implement such plan.

“(c) BRIEFING.—Not later than March 1, 2018, the Administrator, in coordination with the Chairman, shall provide a briefing to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] on the plan of the Administrator to carry out the warhead design competition under subsection (b). Such briefing shall include an assessment of the costs, benefits, risks, and opportunities of such plan, particularly impacts to ongoing life extension programs and infrastructure projects.”

PLAN FOR DEVELOPING EXASCALE COMPUTING AND INCORPORATING SUCH COMPUTING INTO THE STOCKPILE STEWARDSHIP PROGRAM

Pub. L. 113–66, div. C, title XXXI, §3129, Dec. 26, 2013, 127 Stat. 1066, provided that:

“(a) PLAN REQUIRED.—The Administrator for Nuclear Security shall develop and carry out a plan to develop exascale computing and incorporate such computing into the stockpile stewardship program under section 4201 of the Atomic Energy Defense Act (50 U.S.C. 2521) during the 10-year period beginning on the date of the enactment of this Act [Dec. 26, 2013].

“(b) MILESTONES.—The plan required by subsection (a) shall include major programmatic milestones in—

“(1) the development of a prototype exascale computer for the stockpile stewardship program; and

“(2) mitigating disruptions resulting from the transition to exascale computing.

“(c) COORDINATION WITH OTHER AGENCIES.—In developing the plan required by subsection (a), the Administrator shall coordinate, as appropriate, with the Under Secretary of Energy for Science, the Secretary of Defense, and elements of the intelligence community (as defined in section 3(4) of the National Security Act of 1947 (50 U.S.C. 3003(4))).

“(d) INCLUSION OF COSTS IN FUTURE-YEARS NUCLEAR SECURITY PROGRAM.—The Administrator shall—

“(1) address, in the estimated expenditures and proposed appropriations reflected in each future-years nuclear security program submitted under section 3253 of the National Nuclear Security Administration Act (50 U.S.C. 2453) during the 10-year period beginning on the date of the enactment of this Act, the costs of—

“(A) developing exascale computing and incorporating such computing into the stockpile stewardship program; and

“(B) mitigating potential disruptions resulting from the transition to exascale computing; and

“(2) include in each such future-years nuclear security program a description of the costs of efforts to develop exascale computing borne by the National Nuclear Security Administration, the Office of Science of the Department of Energy, other Federal agencies, and private industry.

“(e) SUBMISSION TO CONGRESS.—The Administrator shall submit the plan required by subsection (a) to the congressional defense committees [Committees on

Armed Services and Appropriations of the Senate and the House of Representatives] with each summary of the plan required by subsection (a) of section 4203 of the Atomic Energy Defense Act (50 U.S.C. 2523) submitted under subsection (b)(1) of that section during the 10-year period beginning on the date of the enactment of this Act.

“(f) EXASCALE COMPUTING DEFINED.—In this section, the term ‘exascale computing’ means computing through the use of a computing machine that performs near or above 10 to the 18th power floating point operations per second.”

**§ 2522. Stockpile stewardship criteria**

**(a) Requirement for criteria**

The Secretary of Energy shall develop clear and specific criteria for judging whether the science-based tools being used by the Department of Energy for determining the safety and reliability of the nuclear weapons stockpile are performing in a manner that will provide an adequate degree of certainty that the stockpile is safe and reliable.

**(b) Coordination with Secretary of Defense**

The Secretary of Energy, in developing the criteria required by subsection (a), shall coordinate with the Secretary of Defense.

(Pub. L. 107–314, div. D, title XLII, §4202, formerly Pub. L. 105–261, div. C, title XXXI, §3158, Oct. 17, 1998, 112 Stat. 2257; Pub. L. 106–65, div. A, title X, §1067(3), Oct. 5, 1999, 113 Stat. 774; renumbered Pub. L. 107–314, div. D, title XLII, §4202, by Pub. L. 108–136, div. C, title XXXI, §3141(e)(3), Nov. 24, 2003, 117 Stat. 1758; Pub. L. 111–84, div. C, title XXXI, §3112, Oct. 28, 2009, 123 Stat. 2703; Pub. L. 112–239, div. C, title XXXI, §3133(b)(1), (2), Jan. 2, 2013, 126 Stat. 2192.)

CODIFICATION

Section was formerly set out as a note under section 2121 of Title 42, The Public Health and Welfare, prior to renumbering by Pub. L. 108–136.

AMENDMENTS

2013—Pub. L. 112–239, §3133(b)(2), substituted “Stockpile stewardship criteria” for “Report on stockpile stewardship criteria” in section catchline.

Subsecs. (c), (d). Pub. L. 112–239, §3133(b)(1), struck out subsecs. (c) and (d), which related, respectively, to report and definitions.

2009—Subsec. (c). Pub. L. 111–84, §3112(a), amended subsec. (c) generally. Prior to amendment, subsec. (c) required submission of report not later than Mar. 1, 2000, to Congressional committees on Department of Energy efforts to develop subsec. (a) criteria.

Subsec. (d). Pub. L. 111–84, §3112(b), added subsec. (d). 1999—Subsec. (c). Pub. L. 106–65 substituted “Committee on Armed Services” for “Committee on National Security” before “of the House of Representatives”.

**§ 2523. Nuclear weapons stockpile stewardship, management, and responsiveness plan**

**(a) Plan requirement**

The Administrator, in consultation with the Secretary of Defense and other appropriate officials of the departments and agencies of the Federal Government, shall develop and annually update a plan for sustaining the nuclear weapons stockpile. The plan shall cover, at a minimum, stockpile stewardship, stockpile management, stockpile responsiveness, stockpile surveillance, program direction, infrastructure