

**(e) Maximum period of grants**

The Director may not fund any participant under the demonstration project for more than 3 years.

**(f) Transfer of information and knowledge**

The Director shall establish mechanisms to ensure that the information and knowledge gained by participants in the demonstration project are transferred among the participants and to other interested parties, including other communities that submitted applications to the participant in the project.

**(g) Authorization of appropriations**

There is authorized to be appropriated for grants under this section such sums as may be necessary.

(Pub. L. 107-296, title XVIII, §1810, as added Pub. L. 110-53, title III, §302(a), Aug. 3, 2007, 121 Stat. 300.)

SUBCHAPTER XIV—DOMESTIC NUCLEAR  
DETECTION OFFICE

CODIFICATION

This subchapter is comprised of title XIX, formerly title XVIII, of Pub. L. 107-296, as added by Pub. L. 109-347, title V, §501(a), Oct. 13, 2006, 120 Stat. 1932, and renumbered title XIX by Pub. L. 110-53, title I, §104(a)(1), Aug. 3, 2007, 121 Stat. 294.

**§ 591. Domestic Nuclear Detection Office****(a) Establishment**

There shall be established in the Department a Domestic Nuclear Detection Office (referred to in this subchapter as the “Office”). The Secretary may request that the Secretary of Defense, the Secretary of Energy, the Secretary of State, the Attorney General, the Nuclear Regulatory Commission, and the directors of other Federal agencies, including elements of the Intelligence Community, provide for the reimbursable detail of personnel with relevant expertise to the Office.

**(b) Director**

The Office shall be headed by a Director for Domestic Nuclear Detection, who shall be appointed by the President.

(Pub. L. 107-296, title XIX, §1901, formerly title XVIII, §1801, as added Pub. L. 109-347, title V, §501(a), Oct. 13, 2006, 120 Stat. 1932; renumbered title XIX, §1901, Pub. L. 110-53, title I, §104(a)(1), (2), Aug. 3, 2007, 121 Stat. 294.)

**§ 592. Mission of Office****(a) Mission**

The Office shall be responsible for coordinating Federal efforts to detect and protect against the unauthorized importation, possession, storage, transportation, development, or use of a nuclear explosive device, fissile material, or radiological material in the United States, and to protect against attack using such devices or materials against the people, territory, or interests of the United States and, to this end, shall—

(1) serve as the primary entity of the United States Government to further develop, ac-

quire, and support the deployment of an enhanced domestic system to detect and report on attempts to import, possess, store, transport, develop, or use an unauthorized nuclear explosive device, fissile material, or radiological material in the United States, and improve that system over time;

(2) enhance and coordinate the nuclear detection efforts of Federal, State, local, and tribal governments and the private sector to ensure a managed, coordinated response;

(3) establish, with the approval of the Secretary and in coordination with the Attorney General, the Secretary of Defense, and the Secretary of Energy, additional protocols and procedures for use within the United States to ensure that the detection of unauthorized nuclear explosive devices, fissile material, or radiological material is promptly reported to the Attorney General, the Secretary, the Secretary of Defense, the Secretary of Energy, and other appropriate officials or their respective designees for appropriate action by law enforcement, military, emergency response, or other authorities;

(4) develop, with the approval of the Secretary and in coordination with the Attorney General, the Secretary of State, the Secretary of Defense, and the Secretary of Energy, an enhanced global nuclear detection architecture with implementation under which—

(A) the Office will be responsible for the implementation of the domestic portion of the global architecture;

(B) the Secretary of Defense will retain responsibility for implementation of Department of Defense requirements within and outside the United States; and

(C) the Secretary of State, the Secretary of Defense, and the Secretary of Energy will maintain their respective responsibilities for policy guidance and implementation of the portion of the global architecture outside the United States, which will be implemented consistent with applicable law and relevant international arrangements;

(5) ensure that the expertise necessary to accurately interpret detection data is made available in a timely manner for all technology deployed by the Office to implement the global nuclear detection architecture;

(6) conduct, support, coordinate, and encourage an aggressive, expedited, evolutionary, and transformational program of research and development to generate and improve technologies to detect and prevent the illicit entry, transport, assembly, or potential use within the United States of a nuclear explosive device or fissile or radiological material, and coordinate with the Under Secretary for Science and Technology on basic and advanced or transformational research and development efforts relevant to the mission of both organizations;

(7) carry out a program to test and evaluate technology for detecting a nuclear explosive device and fissile or radiological material, in coordination with the Secretary of Defense and the Secretary of Energy, as appropriate, and establish performance metrics for evaluating the effectiveness of individual detectors

and detection systems in detecting such devices or material—

(A) under realistic operational and environmental conditions; and

(B) against realistic adversary tactics and countermeasures;

(8) support and enhance the effective sharing and use of appropriate information generated by the intelligence community, law enforcement agencies, counterterrorism community, other government agencies, and foreign governments, as well as provide appropriate information to such entities;

(9) further enhance and maintain continuous awareness by analyzing information from all Office mission-related detection systems;

(10) lead the development and implementation of the national strategic five-year plan for improving the nuclear forensic and attribution capabilities of the United States required under section 1036 of the National Defense Authorization Act for Fiscal Year 2010;

(11) establish, within the Domestic Nuclear Detection Office, the National Technical Nuclear Forensics Center to provide centralized stewardship, planning, assessment, gap analysis, exercises, improvement, and integration for all Federal nuclear forensics and attribution activities—

(A) to ensure an enduring national technical nuclear forensics capability to strengthen the collective response of the United States to nuclear terrorism or other nuclear attacks; and

(B) to coordinate and implement the national strategic five-year plan referred to in paragraph (10);

(12) establish a National Nuclear Forensics Expertise Development Program, which—

(A) is devoted to developing and maintaining a vibrant and enduring academic pathway from undergraduate to post-doctorate study in nuclear and geochemical science specialties directly relevant to technical nuclear forensics, including radiochemistry, geochemistry, nuclear physics, nuclear engineering, materials science, and analytical chemistry;

(B) shall—

(i) make available for undergraduate study student scholarships, with a duration of up to 4 years per student, which shall include, if possible, at least 1 summer internship at a national laboratory or appropriate Federal agency in the field of technical nuclear forensics during the course of the student's undergraduate career;

(ii) make available for doctoral study student fellowships, with a duration of up to 5 years per student, which shall—

(I) include, if possible, at least 2 summer internships at a national laboratory or appropriate Federal agency in the field of technical nuclear forensics during the course of the student's graduate career; and

(II) require each recipient to commit to serve for 2 years in a post-doctoral position in a technical nuclear forensics-re-

lated specialty at a national laboratory or appropriate Federal agency after graduation;

(iii) make available to faculty awards, with a duration of 3 to 5 years each, to ensure faculty and their graduate students have a sustained funding stream; and

(iv) place a particular emphasis on reinvigorating technical nuclear forensics programs while encouraging the participation of undergraduate students, graduate students, and university faculty from historically Black colleges and universities, Hispanic-serving institutions, Tribal Colleges and Universities, Asian American and Native American Pacific Islander-serving institutions, Alaska Native-serving institutions, and Hawaiian Native-serving institutions; and

(C) shall—

(i) provide for the selection of individuals to receive scholarships or fellowships under this section through a competitive process primarily on the basis of academic merit and the nuclear forensics and attribution needs of the United States Government;

(ii) provide for the setting aside of up to 10 percent of the scholarships or fellowships awarded under this section for individuals who are Federal employees to enhance the education of such employees in areas of critical nuclear forensics and attribution needs of the United States Government, for doctoral education under the scholarship on a full-time or part-time basis;

(iii) provide that the Secretary may enter into a contractual agreement with an institution of higher education under which the amounts provided for a scholarship under this section for tuition, fees, and other authorized expenses are paid directly to the institution with respect to which such scholarship is awarded;

(iv) require scholarship recipients to maintain satisfactory academic progress; and

(v) require that—

(I) a scholarship recipient who fails to maintain a high level of academic standing, as defined by the Secretary, who is dismissed for disciplinary reasons from the educational institution such recipient is attending, or who voluntarily terminates academic training before graduation from the educational program for which the scholarship was awarded shall be liable to the United States for repayment within 1 year after the date of such default of all scholarship funds paid to such recipient and to the institution of higher education on the behalf of such recipient, provided that the repayment period may be extended by the Secretary if the Secretary determines it necessary, as established by regulation; and

(II) a scholarship recipient who, for any reason except death or disability, fails to begin or complete the post-doc-

toral service requirements in a technical nuclear forensics-related specialty at a national laboratory or appropriate Federal agency after completion of academic training shall be liable to the United States for an amount equal to—

(aa) the total amount of the scholarship received by such recipient under this section; and

(bb) the interest on such amounts which would be payable if at the time the scholarship was received such scholarship was a loan bearing interest at the maximum legally prevailing rate;

(13) provide an annual report to Congress on the activities carried out under paragraphs (10), (11), and (12); and

(14) perform other duties as assigned by the Secretary.

**(b) Definitions**

In this section:

**(1) Alaska Native-serving institution**

The term “Alaska Native-serving institution” has the meaning given the term in section 1059d of title 20.

**(2) Asian American and Native American Pacific Islander-serving institution**

The term “Asian American and Native American Pacific Islander-serving institution” has the meaning given the term in section 1059g of title 20.

**(3) Hawaiian native-serving institution**

The term “Hawaiian native-serving institution”<sup>1</sup> has the meaning given the term in section 1059d of title 20.

**(4) Hispanic-serving institution**

The term “Hispanic-serving institution” has the meaning given that term in section 1101a of title 20.

**(5) Historically Black college or university**

The term “historically Black college or university” has the meaning given the term “part B institution” in section 1061(2) of title 20.

**(6) Tribal College or University**

The term “Tribal College or University” has the meaning given that term in section 1059c(b) of title 20.

(Pub. L. 107–296, title XIX, §1902, formerly title XVIII, §1802, as added Pub. L. 109–347, title V, §501(a), Oct. 13, 2006, 120 Stat. 1932; renumbered title XIX, §1902, Pub. L. 110–53, title I, §104(a)(1), (2), Aug. 3, 2007, 121 Stat. 294; amended Pub. L. 111–140, §4(a), Feb. 16, 2010, 124 Stat. 32.)

REFERENCES IN TEXT

Section 1036 of the National Defense Authorization Act for Fiscal Year 2010, referred to in subsec. (a)(10), is section 1036 of Pub. L. 111–84, Oct. 28, 2009, 123 Stat. 2190, which is not classified to the Code. For complete classification of this Act to the Code, see Tables.

AMENDMENTS

2010—Subsec. (a)(10) to (14). Pub. L. 111–140, §4(a)(1), added pars. (10) to (13) and redesignated former par. (10) as (14).

<sup>1</sup> So in original. Section 1059d of title 20 defines “Native Hawaiian-serving institution”.

Subsec. (b). Pub. L. 111–140, §4(a)(2), added subsec. (b).

FINDINGS

Pub. L. 111–140, §2, Feb. 16, 2010, 124 Stat. 31, provided that: “Congress finds the following:

“(1) The threat of a nuclear terrorist attack on American interests, both domestic and abroad, is one of the most serious threats to the national security of the United States. In the wake of an attack, attribution of responsibility would be of utmost importance. Because of the destructive power of a nuclear weapon, there could be little forensic evidence except the radioactive material in the weapon itself.

“(2) Through advanced nuclear forensics, using both existing techniques and those under development, it may be possible to identify the source and pathway of a weapon or material after it is interdicted or detonated. Though identifying intercepted smuggled material is now possible in some cases, pre-detonation forensics is a relatively undeveloped field. The post-detonation nuclear forensics field is also immature, and the challenges are compounded by the pressures and time constraints of performing forensics after a nuclear or radiological attack.

“(3) A robust and well-known capability to identify the source of nuclear or radiological material intended for or used in an act of terror could also deter prospective proliferators. Furthermore, the threat of effective attribution could compel improved security at material storage facilities, preventing the unwitting transfer of nuclear or radiological materials.

“(4)(A) In order to identify special nuclear material and other radioactive materials confidently, it is necessary to have a robust capability to acquire samples in a timely manner, analyze and characterize samples, and compare samples against known signatures of nuclear and radiological material.

“(B) Many of the radioisotopes produced in the detonation of a nuclear device have short half-lives, so the timely acquisition of samples is of the utmost importance. Over the past several decades, the ability of the United States to gather atmospheric samples—often the preferred method of sample acquisition—has diminished. This ability must be restored and modern techniques that could complement or replace existing techniques should be pursued.

“(C) The discipline of pre-detonation forensics is a relatively undeveloped field. The radiation associated with a nuclear or radiological device may affect traditional forensics techniques in unknown ways. In a post-detonation scenario, radiochemistry may provide the most useful tools for analysis and characterization of samples. The number of radiochemistry programs and radiochemists in United States National Laboratories and universities has dramatically declined over the past several decades. The narrowing pipeline of qualified people into this critical field is a serious impediment to maintaining a robust and credible nuclear forensics program.

“(5) Once samples have been acquired and characterized, it is necessary to compare the results against samples of known material from reactors, weapons, and enrichment facilities, and from medical, academic, commercial, and other facilities containing such materials, throughout the world. Some of these samples are available to the International Atomic Energy Agency through safeguards agreements, and some countries maintain internal sample databases. Access to samples in many countries is limited by national security concerns.

“(6) In order to create a sufficient deterrent, it is necessary to have the capability to positively identify the source of nuclear or radiological material, and potential traffickers in nuclear or radiological material must be aware of that capability. International cooperation may be essential to catalogue all existing sources of nuclear or radiological material.”

**§ 592a. Technology research and development investment strategy for nuclear and radiological detection**

**(a) In general**

Not later than 1 year after October 13, 2006, the Secretary, the Secretary of Energy, the Secretary of Defense, and the Director of National Intelligence shall submit to Congress a research and development investment strategy for nuclear and radiological detection.

**(b) Contents**

The strategy under subsection (a) shall include—

(1) a long term technology roadmap for nuclear and radiological detection applicable to the mission needs of the Department, the Department of Energy, the Department of Defense, and the Office of the Director of National Intelligence;

(2) budget requirements necessary to meet the roadmap; and

(3) documentation of how the Department, the Department of Energy, the Department of Defense, and the Office of the Director of National Intelligence will execute this strategy.

**(c) Initial report**

Not later than 1 year after October 13, 2006, the Secretary shall submit a report to the appropriate congressional committees on—

(1) the impact of this title,<sup>1</sup> and the amendments made by this title, on the responsibilities under section 182 of this title; and

(2) the efforts of the Department to coordinate, integrate, and establish priorities for conducting all basic and applied research, development, testing, and evaluation of technology and systems to detect, prevent, protect, and respond to chemical, biological, radiological, and nuclear terrorist attacks.

**(d) Annual report**

The Director for Domestic Nuclear Detection and the Under Secretary for Science and Technology shall jointly and annually notify Congress that the strategy and technology road map for nuclear and radiological detection developed under subsections (a) and (b) is consistent with the national policy and strategic plan for identifying priorities, goals, objectives, and policies for coordinating the Federal Government's civilian efforts to identify and develop countermeasures to terrorist threats from weapons of mass destruction that are required under section 182(2) of this title.

(Pub. L. 109-347, title V, §502, Oct. 13, 2006, 120 Stat. 1935.)

REFERENCES IN TEXT

This title, referred to in subsec. (c)(1), is title V of Pub. L. 109-347, Oct. 13, 2006, 120 Stat. 1932, which enacted this subchapter and this section and amended sections 113 and 182 of this title. For complete classification of title V to the Code, see Tables.

CODIFICATION

Section was enacted as part of the Security and Accountability For Every Port Act of 2006, also known as

the SAFE Port Act, and not as part of the Homeland Security Act of 2002 which comprises this chapter.

DEFINITIONS

For definitions of terms used in this section, see section 901 of this title.

**§ 593. Hiring authority**

In hiring personnel for the Office, the Secretary shall have the hiring and management authorities provided in section 1101<sup>1</sup> of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (5 U.S.C. 3104 note). The term of appointments for employees under subsection (c)(1) of such section may not exceed 5 years before granting any extension under subsection (c)(2) of such section.

(Pub. L. 107-296, title XIX, §1903, formerly title XVIII, §1803, as added Pub. L. 109-347, title V, §501(a), Oct. 13, 2006, 120 Stat. 1934; renumbered title XIX, §1903, Pub. L. 110-53, title I, §104(a)(1), (2), Aug. 3, 2007, 121 Stat. 294.)

REFERENCES IN TEXT

Section 1101 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, referred to in text, is section 1101 of Pub. L. 105-261, which was formerly set out as a note under section 3104 of Title 5, Government Organization and Employees, prior to repeal by Pub. L. 114-328, div. A, title XI, §1121(b), Dec. 23, 2016, 130 Stat. 2452. See section 1599h of Title 10, Armed Forces.

**§ 594. Testing authority**

**(a) In general**

The Director shall coordinate with the responsible Federal agency or other entity to facilitate the use by the Office, by its contractors, or by other persons or entities, of existing Government laboratories, centers, ranges, or other testing facilities for the testing of materials, equipment, models, computer software, and other items as may be related to the missions identified in section 592 of this title. Any such use of Government facilities shall be carried out in accordance with all applicable laws, regulations, and contractual provisions, including those governing security, safety, and environmental protection, including, when applicable, the provisions of section 189 of this title. The Office may direct that private sector entities utilizing Government facilities in accordance with this section pay an appropriate fee to the agency that owns or operates those facilities to defray additional costs to the Government resulting from such use.

**(b) Confidentiality of test results**

The results of tests performed with services made available shall be confidential and shall not be disclosed outside the Federal Government without the consent of the persons for whom the tests are performed.

**(c) Fees**

Fees for services made available under this section shall not exceed the amount necessary to recoup the direct and indirect costs involved, such as direct costs of utilities, contractor sup-

<sup>1</sup> See References in Text note below.

<sup>1</sup> See References in Text note below.