

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<sup>2</sup> 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.)

**Editorial Notes**

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.

**Statutory Notes and Related Subsidiaries**

CHANGE OF NAME

Reference to the Director for Domestic Nuclear Detection deemed to be a reference to the Assistant Secretary for the Countering Weapons of Mass Destruction Office, see section 2(b)(1)(B) of Pub. L. 115-387, set out as a note under section 591 of this title.

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

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

<sup>2</sup> See Change of Name note below.