

118TH CONGRESS }
2d Session

SENATE

{ REPORT
118-239

DHS BIODETECTION IMPROVEMENT ACT

R E P O R T

OF THE

COMMITTEE ON HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

TO ACCOMPANY

H.R. 6174

TO IMPROVE THE BIODETECTION FUNCTIONS OF THE
DEPARTMENT OF HOMELAND SECURITY, AND FOR OTHER
PURPOSES



NOVEMBER 12, 2024.—Ordered to be printed

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DHS BIODETECTION IMPROVEMENT ACT

NOVEMBER 12, 2024.—Ordered to be printed

Mr. PETERS, from the Committee on Homeland Security and Governmental Affairs, submitted the following

R E P O R T

[To accompany H.R. 6174]

[Including cost estimate of the Congressional Budget Office]

The Committee on Homeland Security and Governmental Affairs, to which was referred the bill (H.R. 6174) to improve the biodetection functions of the Department of Homeland Security, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

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I. PURPOSE AND SUMMARY

H.R. 6174, the *DHS Biodetection Improvement Act*, would direct the Secretary of the Department of Homeland Security (DHS) to conduct an assessment examining how DHS has utilized the Department of Energy’s (DOE) national laboratories and sites for the purpose of carrying out the missions of DHS and then submit that assessment to appropriate congressional committees. The bill also directs DHS to submit a strategy for how DHS will coordinate with DOE national laboratories to address biodetection research and development. The strategy shall include an acquisition and procurement plan, periodic external evaluations to identify gaps with respect to biodetection technologies and recommended contingency

plans for underperforming technologies, and clearly defined program and technical requirements for future DHS biodetection efforts. H.R. 6174 also requires the DHS Secretary to provide an update to appropriate congressional committees regarding the assessment and strategy within a year of enactment.

II. BACKGROUND AND NEED FOR THE LEGISLATION

In 2001, a bioterrorism attack involving anthrax letters sent to congressional leaders highlighted the fact that no biodetection system existed in the United States that was capable of identifying such a bioterrorism attack.¹ In 2003, in response to the 2001 anthrax attacks, the Department of Homeland Security (DHS) established the BioWatch Program as an early warning monitoring system that collects and tests air samples for biological agents in locations that DHS, through intelligence assessments and other threat reporting, determines are most likely to be the target of a potential bioterrorist attack. Early detection of aerosolized biological agents (such as weaponized anthrax spores) would allow for widespread distribution of medical countermeasures in the hopes of preventing widespread illness or death. BioWatch is currently active in over 30 major metropolitan areas across the United States, and coordinates with a large network of stakeholders that includes public health, emergency management, law enforcement, laboratory, scientific, and environmental health organizations. The DHS Countering Weapons of Mass Destruction Office (CWMD) operates the program and the technology utilized by BioWatch was originally developed in coordination with DOE national laboratories. BioWatch uses a network of sensors to detect the release of certain biological threat agents that involves air sampling and laboratory analysis. DHS, however, has struggled to establish or demonstrate the program's current capabilities and the technology has experienced a high potential for false alarms.² In addition, while the stated goal of BioWatch was to be an early warning system, BioWatch's technology and practices have limited its capability to enable a rapid response to a confirmed attack, because laboratory results are not available until 12 to 36 hours after samples are collected at the machines deployed in U.S. cities.³

In 2019, CWMD began a new acquisition program that aimed to develop a next-generation capability for detecting airborne biological threats. To address the limitations of BioWatch, this program incorporated a system-of-systems approach, which was intended to combine several technologies (such as biological sensors, data analytics, field screening devices, etc.) to enable a timelier and more efficient detection of biological agents in an aerosolized attack. According to a May 2021 Government Accountability Office report, CWMD faced challenges in acquiring the biodetection technologies necessary to replace BioWatch.⁴ The Homeland Security Act of

¹ Congressional Research Service, *The BioWatch Program: Detection of Bioterrorism* (RL32152) (November 2003).

² Government Accountability Office, *Biosurveillance: DHS Should Not Pursue BioWatch Upgrades or Enhancements Until System Capabilities Are Established* (GAO-16-99) (October 2015).

³ Department of Homeland Security, Science and Technology Directorate and Countering Weapons of Mass Destruction Office, *DHS Biosurveillance Systems* (Sept. 28, 2020) (www.dhs.gov/sites/default/files/publications/st_cwmd_-_dhs_biosurveillance_systems.pdf).

⁴ Government Accountability Office, *Biodefense: DHS Exploring New Methods to Replace BioWatch and Could Benefit from Additional Guidance* (GAO-21-292) (May 2021).

2002 authorized DHS to use DOE laboratories to help execute its mission, including for identifying and developing new biodetection technologies.⁵ As DOE laboratories continue to actively develop new biodetection technologies, DHS could address the biodetection technology acquisition challenges CWMD currently faces by utilizing the resources that DOE laboratories offer that would help expand its biodetection capabilities.⁶

III. LEGISLATIVE HISTORY

Representative Dale Strong (R–AL–05) introduced H.R. 6174, the *DHS Biodetection Improvement Act*, on November 2, 2023, with original cosponsors Representatives Mark Green (R–TN–07), Anthony D’Esposito (R–NY–04), Eric Swalwell (D–CA–14), and Clay Higgins (R–LA–03). The bill was referred to the House Committee on Homeland Security. The Committee considered H.R. 6174 at a meeting on November 8, 2023, and ordered the measure to be favorably reported to the House by voice vote. The House of Representatives considered H.R. 6174 on March 5, 2024, under suspension of the rules, and passed the bill by voice vote.

The bill was referred to the Senate Committee on Homeland Security and Governmental Affairs. The Committee considered H.R. 6174 at a business meeting on July 31, 2024. The bill was ordered reported favorably by roll call vote of 10 yeas to 1 nay, with Senators Peters, Carper, Hassan, Sinema, Rosen, Ossoff, Blumenthal, Butler, Lankford, and Scott voting in the affirmative, and Senator Paul voting in the negative. Senators Johnson, Romney, Hawley and Marshall voted yea by proxy, for the record only.

IV. SECTION-BY-SECTION ANALYSIS OF THE BILL, AS REPORTED

Section 1. Short title

This section establishes the short title of the bill as the “DHS Biodetection Improvement Act.”

Section 2. DHS utilization of Department of Energy national laboratories and sites for certain biodetection research and development relating to the Missions of DHS

Subsection (a) directs the DHS Secretary to conduct an assessment of how DHS has utilized DOE national laboratories and sites in carrying out the missions of DHS.

Subsection (b) directs the assessment to be submitted to the Senate Homeland Security and Governmental Affairs Committee and the House Committee on Homeland Security no later than 180 days after enactment. The assessment shall include the following: (1) identifying biodetection technologies that can meet DHS’s biodetection mission needs; (2) developing an acquisition and procurement plan for biodetection technologies; (3) conducting periodic external evaluations to identify gaps and potential failure points with respect to such biodetection technologies, and recommending contingency plans if such technologies do not perform as expected; and (4) assisting with the development of clearly defined program and

⁵Section 309 of the *Homeland Security Act of 2002* (P.L. 107–296) gives the DHS Secretary the authority to utilize Department of Energy national laboratories and sites in support of homeland security activities.

⁶Department of Energy, Office of Science, *National Virtual Biotechnology Laboratory* (<https://science.osti.gov/nvbl/NVBL-Projects>).

technical requirements for future DHS bioterrorism efforts, as appropriate and in partnering with federal, state, local, and tribal governments, higher education institutions, and the private sector.

Subsection (c) directs the DHS Secretary to provide an update on the assessment and strategy one year after enactment to the Senate Homeland Security and Governmental Affairs Committee and the House Committee on Homeland Security, including any challenges in implementing the strategy.

V. EVALUATION OF REGULATORY IMPACT

Pursuant to the requirements of paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has considered the regulatory impact of this bill and determined that the bill will have no regulatory impact within the meaning of the rules. The Committee agrees with the Congressional Budget Office's statement that the bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

VI. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

H.R. 6174, DHS Biodefense Improvement Act			
As ordered reported by the Senate Committee on Homeland Security and Governmental Affairs on July 31, 2024			
By Fiscal Year, Millions of Dollars	2024	2024-2029	2024-2034
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	0	*	not estimated
Increases <i>net direct spending</i> in any of the four consecutive 10-year periods beginning in 2035?	No	Statutory pay-as-you-go procedures apply?	No
		Mandate Effects	
Increases <i>on-budget deficits</i> in any of the four consecutive 10-year periods beginning in 2035?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

H.R. 6174 would require the Department of Homeland Security (DHS), within 180 days of enactment, to report to the Congress on its use of the Department of Energy's national laboratories and on a strategy to improve bioterrorism capabilities at DHS. The department's efforts to prevent the use of biological and chemical weapons include testing and monitoring air quality for potential biological threats, conducting research, and promoting readiness against such attacks by partnering with state, local, and tribal governments. H.R. 6174 also would require DHS to provide an update on the strategy to the Congress within one year of enactment.

Based on the costs of similar activities, CBO estimates that implementing H.R. 6174 would cost less than \$500,000 over the 2024–2029 period. Any related spending would be subject to the availability of appropriated funds.

On November 20, 2023, CBO transmitted a cost estimate for H.R. 6174, the DHS Biodetection Improvement Act, as ordered reported by the House Committee on Homeland Security, on November 8, 2023. The two bills are similar, and CBO's estimates of both bills are the same.

The CBO staff contact for this estimate is Jeremy Crimm. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

PHILLIP L. SWAGEL,
Director, Congressional Budget Office.

VII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

This legislation would make no change in existing law, within the meaning of clauses (a) and (b) of subparagraph 12 of rule XXVI of the Standing Rules of the Senate, because this legislation would not repeal or amend any provision of current law.