

Calendar No. 240116TH CONGRESS
1ST SESSION**S. 384****[Report No. 116-128]**

To require the Secretary of Commerce, acting through the Director of the National Institute of Standards and Technology, to help facilitate the adoption of composite technology in infrastructure in the United States, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 7, 2019

Mrs. CAPITO (for herself and Mr. PETERS) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

SEPTEMBER 26, 2019

Reported by Mr. WICKER, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italie*]

A BILL

To require the Secretary of Commerce, acting through the Director of the National Institute of Standards and Technology, to help facilitate the adoption of composite technology in infrastructure in the United States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. FACILITATING THE ADOPTION OF COMPOSITE**
2 **TECHNOLOGY IN INFRASTRUCTURE.**

3 (a) RESEARCH.—The Secretary of Commerce, acting
4 through the Director of the National Institute of Stand-
5 ards and Technology, shall implement the recommenda-
6 tions contained in the December 2017 report entitled
7 “Road Mapping Workshop Report on Overcoming Bar-
8 riers to Adoption of Composites in Sustainable Infrastruc-
9 ture”, as appropriate, to help facilitate the adoption of
10 composite technology in infrastructure in the United
11 States. In implementing such recommendations, the Sec-
12 retary, acting through the Director shall, with respect to
13 the use of composite technology in infrastructure—

14 (1) not later than 9 months after the date of
15 the enactment of this Act, develop a design for a
16 data clearinghouse to identify, gather, validate, and
17 disseminate existing design criteria, tools, guidelines,
18 and standards in a timely manner;

19 (2) not later than 18 months after the date of
20 the enactment of this Act, establish the data clear-
21 inghouse described in paragraph (1); and

22 (3) develop methods and resources required for
23 testing and evaluating safe and appropriate uses of
24 composite materials for infrastructure, including—

25 (A) conditioning protocols, procedures and
26 models;

1 (B) screening and acceptance tools; and
2 (C) minimum allowable design data sets
3 that can be converted into design tools.

4 (b) STANDARDS COORDINATION.—The Secretary,
5 acting through the Director, shall assure that the appro-
6 priate Institute staff consult regularly with standards de-
7 velopers, members of the composites industry, institutions
8 of higher education, and other stakeholders in order to fa-
9 cilitate the adoption of standards for use of composite ma-
10 terials in infrastructure that are based on the research and
11 testing results and other information developed by the In-
12 stitute.

13 (c) PILOT PROGRAM.—

14 (1) IN GENERAL.—Commencing not later than
15 1 year after the date of the enactment of this Act,
16 the Director of the National Institute of Standards
17 and Technology shall, in consultation with the In-
18 dustry-University Cooperative Research Centers Pro-
19 gram of the National Science Foundation, conduct a
20 pilot program to assess the feasibility and advis-
21 ability of adopting composite technology in sustain-
22 able infrastructure.

23 (2) DURATION.—The Director shall carry out
24 the pilot program during the 4-year period beginning

1 on the date of the commencement of the pilot pro-
 2 gram.

3 ~~(3) REPORTS.—~~

4 (A) PRELIMINARY REPORT.—Not later
 5 than the date that is 2 years after the date of
 6 the commencement of the pilot program, the
 7 Director shall submit to the Committee on
 8 Commerce, Science, and Transportation of the
 9 Senate and the Committee on Science, Space,
 10 and Technology of the House of Representa-
 11 tives a report on the preliminary findings of the
 12 Director with respect to the pilot program.

13 (B) FINAL REPORT.—Not later than the
 14 date that is 90 days after the date of the com-
 15 pletion of the pilot program, the Director shall
 16 submit to the committees referred to in sub-
 17 paragraph (A) a report on the findings of the
 18 Director with respect to the pilot program.

19 **SECTION 1. FACILITATING THE ADOPTION OF COMPOSITE**
 20 **TECHNOLOGY IN INFRASTRUCTURE.**

21 (a) RESEARCH.—Subject to the availability of appro-
 22 priations, the Secretary of Commerce, acting through the
 23 Director of the National Institute of Standards and Tech-
 24 nology, shall implement the recommendations contained in
 25 the December 2017 report entitled “Road Mapping Work-

1 *shop Report on Overcoming Barriers to Adoption of Com-*
2 *posites in Sustainable Infrastructure”, as appropriate, to*
3 *help facilitate the adoption of composite technology in in-*
4 *frastructure in the United States. In implementing such*
5 *recommendations, the Secretary, acting through the Direc-*
6 *tor shall, with respect to the use of composite technology*
7 *in infrastructure—*

8 (1) *not later than 1 year after the date of the en-*
9 *actment of this Act, develop a design for a data clear-*
10 *inghouse to identify, gather, validate, and disseminate*
11 *existing design criteria, tools, guidelines, and stand-*
12 *ards in a timely manner;*

13 (2) *not later than 18 months after the date of the*
14 *enactment of this Act, establish the data clearinghouse*
15 *described in paragraph (1);*

16 (3) *develop methods and resources required for*
17 *testing and evaluating safe and appropriate uses of*
18 *composite materials for infrastructure, including—*

19 (A) *conditioning protocols, procedures and*
20 *models;*

21 (B) *screening and acceptance tools; and*

22 (C) *minimum allowable design data sets*
23 *that can be converted into design tools; and*

1 (4) *work with other Federal agencies, as appro-*
2 *prate, to identify environmental impacts and*
3 *recyclability of composite materials.*

4 (b) *STANDARDS COORDINATION.*—*The Secretary, act-*
5 *ing through the Director, shall assure that the appropriate*
6 *Institute staff consult regularly with standards developers,*
7 *members of the composites industry, institutions of higher*
8 *education, and other stakeholders in order to facilitate the*
9 *adoption of standards for use of composite materials in in-*
10 *frastructure that are based on the research and testing re-*
11 *sults and other information developed by the Institute.*

12 (c) *PILOT PROGRAM.*—

13 (1) *IN GENERAL.*—*Subject to the availability of*
14 *appropriations, commencing not later than 1 year*
15 *after the date of the enactment of this Act, the Direc-*
16 *tor of the National Institute of Standards and Tech-*
17 *nology shall, in consultation with the Industry-Uni-*
18 *versity Cooperative Research Centers Program of the*
19 *National Science Foundation, conduct a pilot pro-*
20 *gram to assess the feasibility and advisability of*
21 *adopting composite technology in sustainable infra-*
22 *structure.*

23 (2) *DURATION.*—*The Director shall carry out the*
24 *pilot program during the 4-year period beginning on*
25 *the date of the commencement of the pilot program.*

1 (3) *REPORTS.*—

2 (A) *PRELIMINARY REPORT.*—Not later than
3 the date that is 2 years after the date of the com-
4 mencement of the pilot program, the Director
5 shall submit to the Committee on Commerce,
6 Science, and Transportation of the Senate and
7 the Committee on Science, Space, and Tech-
8 nology of the House of Representatives a report
9 on the preliminary findings of the Director with
10 respect to the pilot program.

11 (B) *FINAL REPORT.*—Not later than the
12 date that is 90 days after the date of the comple-
13 tion of the pilot program, the Director shall sub-
14 mit to the committees referred to in subpara-
15 graph (A) a report on the findings of the Direc-
16 tor with respect to the pilot program.

Calendar No. 240

116TH CONGRESS
1ST Session

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A BILL

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