

107TH CONGRESS  
2D SESSION

# H. R. 3929

To provide for the establishment of a cooperative Federal research, development, and demonstration program to ensure the integrity of pipeline facilities, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 12, 2002

Mr. HALL of Texas (for himself, Mr. SMITH of Texas, Ms. WOOLSEY, Mr. BOEHLERT, Mr. UDALL of Colorado, Mr. BARTLETT of Maryland, Mr. CALVERT, and Mr. SHOWS) introduced the following bill; which was referred to the Committee on Science, and in addition to the Committees on Transportation and Infrastructure, and Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To provide for the establishment of a cooperative Federal research, development, and demonstration program to ensure the integrity of pipeline facilities, 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,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Energy Pipeline Re-  
5       search, Development, and Demonstration Act”.

1 **SEC. 2. FINDINGS.**

2 The Congress finds that—

3 (1) natural gas and hazardous liquid pipelines  
4 are a key component of the energy infrastructure of  
5 the United States;

6 (2) many of these pipelines are aging facilities  
7 and therefore more susceptible to failure;

8 (3) these facilities, with their unprotected  
9 rights-of-way, are also highly vulnerable to terrorist  
10 attacks and other disruptions;

11 (4) interruptions in service on major pipelines,  
12 whether a result of pipeline failure or purposeful ac-  
13 tion, can have enormous consequences for the econ-  
14 omy and security of the United States;

15 (5) new energy sources such as hydrogen will  
16 require a new generation of pipelines; and

17 (6) a more coordinated research, development,  
18 demonstration, and standardization program is need-  
19 ed to ensure the use of existing technologies and the  
20 development of new technologies to increase the  
21 safety and security of these critical facilities.

22 **SEC. 3. PIPELINE INTEGRITY RESEARCH, DEVELOPMENT,**  
23 **AND DEMONSTRATION.**

24 (a) ESTABLISHMENT OF COOPERATIVE PROGRAM.—

25 (1) IN GENERAL.—The heads of the partici-  
26 pating agencies shall develop and implement a pro-

1       gram of research, development, demonstration, and  
2       standardization to ensure the integrity of pipeline fa-  
3       cilities.

4           (2) ELEMENTS.—The program shall include re-  
5       search, development, demonstration, and standard-  
6       ization activities related to—

7                   (A) materials research and inspection;

8                   (B) stress and fracture analysis, and detec-  
9       tion of cracks, corrosion, abrasion, and other  
10      abnormalities inside pipelines that lead to pipe-  
11      line failure;

12                  (C) leak detection technologies, including  
13      detection of leaks at very low volumes;

14                  (D) flow metering and methods of ana-  
15      lyzing content of pipeline throughput;

16                  (E) pipeline security, including improving  
17      the surveillance of pipeline rights-of-way;

18                  (F) risk assessment methodology;

19                  (G) information systems surety; and

20                  (H) other elements the heads of the par-  
21      ticipating agencies consider appropriate.

22           (3) ACTIVITIES AND CAPABILITIES REPORT.—  
23      Not later than 6 months after the date of the enact-  
24      ment of this Act, the participating agencies shall  
25      transmit to the Congress a report on the activities

1 and capabilities of the participating agencies, includ-  
2 ing the national laboratories, and any other Federal  
3 agencies that are relevant to or could contribute to  
4 research, development, demonstration, and standard-  
5 ization activities under the program plan prepared  
6 under this section.

7 (b) PROGRAM PLAN.—

8 (1) IN GENERAL.—Not later than 1 year after  
9 the date of the enactment of this Act, the partici-  
10 pating agencies shall prepare and transmit to Con-  
11 gress a 5-year program plan to guide activities  
12 under this section. Such program plan shall be sub-  
13 mitted to the Pipeline Integrity Technical Advisory  
14 Committee established under subsection (c) for re-  
15 view, and the report to Congress shall include the  
16 comments of the Advisory Committee. The 5-year  
17 program plan shall describe related activities of Fed-  
18 eral agencies that are not participating agencies.

19 (2) CONSULTATION.—In preparing the program  
20 plan, the participating agencies shall consult with  
21 appropriate representatives of State and local gov-  
22 ernment and the private sector, including the gas,  
23 crude oil, and petroleum product pipeline industries,  
24 to help establish program priorities and to select and  
25 prioritize appropriate project proposals.

1           (3) ADVICE FROM OTHER ENTITIES.—In pre-  
2       paring the program plan, the participating agencies  
3       may also seek the advice of other Federal agencies,  
4       utilities, manufacturers, institutions of higher learn-  
5       ing, pipeline research institutions, national labora-  
6       tories, environmental organizations, pipeline safety  
7       advocates, professional and technical societies, and  
8       any other appropriate entities.

9       (c) PIPELINE INTEGRITY TECHNICAL ADVISORY  
10     COMMITTEE.—

11           (1) ESTABLISHMENT.—The participating agen-  
12       cies shall establish and manage a Pipeline Integrity  
13       Technical Advisory Committee (in this subsection re-  
14       ferred to as the “Advisory Committee”). The Advi-  
15       sory Committee shall be established not later than 6  
16       months after the date of the enactment of this Act.

17           (2) DUTIES.—The Advisory Committee shall—

18               (A) advise the participating agencies on  
19       the development and implementation of the pro-  
20       gram plan prepared under subsection (b); and

21               (B) have a continuing role in evaluating  
22       the progress and results of research, develop-  
23       ment, demonstration, and standardization ac-  
24       tivities carried out under this section.

25           (3) MEMBERSHIP.—

1 (A) APPOINTMENT.—The Advisory Com-  
2 mittee shall be composed of—

3 (i) 3 members appointed by the Sec-  
4 retary of Energy;

5 (ii) 3 members appointed by the Sec-  
6 retary of Transportation; and

7 (iii) 3 members appointed by the Di-  
8 rector of the National Institute of Stand-  
9 ards and Technology.

10 In making such appointments, the participating  
11 agencies shall seek recommendations from the  
12 National Academy of Sciences.

13 (B) QUALIFICATIONS.—Members ap-  
14 pointed to the Advisory Committee shall have  
15 experience or be technically qualified, by train-  
16 ing or knowledge, in the operations of either the  
17 hazardous liquid or gas pipeline industries, and  
18 have experience in the research and develop-  
19 ment of pipeline or related technologies.

20 (C) COMPENSATION.—The members of the  
21 Advisory Committee shall serve without com-  
22 pensation, but shall receive travel expenses, in-  
23 cluding per diem in lieu of subsistence, in ac-  
24 cordance with sections 5702 and 5703 of title  
25 5, United States Code.

1           (4) MEETINGS.—The Advisory Committee shall  
2       meet at least 4 times each year.

3           (5) TERMINATION.—The Advisory Committee  
4       shall terminate 5 years after its establishment.

5       (d) REPORTS TO CONGRESS.—Not later than 1 year  
6   after the date of the enactment of this Act, and annually  
7   thereafter, the participating agencies shall each transmit  
8   to the Congress a report on the status and results to date  
9   of the implementation of their portion of the program plan  
10  prepared under subsection (b).

11 **SEC. 4. MEMORANDUM OF UNDERSTANDING.**

12       Not later than 120 days after the date of the enact-  
13  ment of this Act, the participating agencies shall enter  
14  into a memorandum of understanding detailing their re-  
15  spective responsibilities under this Act, consistent with the  
16  activities and capabilities identified under section 3(a)(3).  
17  Each of the participating agencies shall have the primary  
18  responsibility for ensuring that the elements of the pro-  
19  gram plan within their jurisdiction are implemented in ac-  
20  cordance with this Act. The Department of Transpor-  
21  tation's responsibilities shall reflect its expertise in pipe-  
22  line inspection and information systems surety. The De-  
23  partment of Energy's responsibilities shall reflect its ex-  
24  pertise in low-volume leak detection and surveillance tech-  
25  nologies. The National Institute of Standards and Tech-

1 nology’s responsibilities shall reflect its expertise in stand-  
2 ards and materials research.

3 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

4 There are authorized to be appropriated—

5 (1) to the Secretary of Energy \$10,000,000;

6 (2) to the Secretary of Transportation  
7 \$5,000,000; and

8 (3) to the National Institute of Standards and  
9 Technology \$5,000,000,

10 for each of the fiscal years 2002 through 2006 for car-  
11 rying out this Act.

12 **SEC. 6. DEFINITION.**

13 For purposes of this Act, the term “participating  
14 agencies” means the Department of Energy, the Depart-  
15 ment of Transportation, and the National Institute of  
16 Standards and Technology.

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