SEC. 21. STUDY OF MATERIALS AND CORROSION PREVENTION IN PIPELINE TRANSPORTATION.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Comptroller General of the United States shall submit to the Committee on Transportation and Infrastructure and the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a study on materials, training, and corrosion prevention technologies for gas and hazardous liquid pipeline facilities.

(b) REQUIREMENTS.—The study required under subsection (a) shall include—

(1) an analysis of—

(A) the range of piping materials, including plastic materials, used to transport hazardous liquids and natural gas in the United States and in other developed countries around the world;

(B) the types of technologies used for corrosion prevention, including coatings and cathodic protection;

(C) common causes of corrosion, including interior and exterior moisture buildup and impacts of moisture buildup under insulation; and

(D) the training provided to personnel responsible for identifying and preventing corrosion in pipelines, and for repairing such pipelines;

(2) the extent to which best practices or guidance relating to pipeline facility design, installation, operation, and maintenance, including training, are available to recognize or prevent corrosion;

(3) an analysis of the estimated costs and anticipated benefits, including safety benefits, associated with the use of such materials and technologies; and

(4) stakeholder and expert perspectives on the effectiveness of corrosion control techniques to reduce the incidence of corrosion-related pipeline failures.

SEC. 22. RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Inspector General of the Department of Transportation shall submit to the Committee on Transportation and Infrastructure, the Committee on Energy and Commerce, and the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report regarding the Pipeline and Hazardous Materials Safety Administration's research and development program carried out under section 12 of the Pipeline Safety Improvement Act of 2002 (49 U.S.C. 60101 note). The report shall include an evaluation of—

(1) compliance with the consultation requirement under subsection (d)(2) of such section;

(2) the extent to which the Pipeline and Hazardous Materials Safety Administration enters into joint research ventures with Federal and non-Federal entities, and benefits thereof;

(3) the policies and procedures the Pipeline and Hazardous Materials Safety Administration has put in place to ensure there are no conflicts of interest with administering grants

pursuant to the program, and whether those policies and procedures are being followed; and

(4) an evaluation of the outcomes of research conducted with Federal and non-Federal entities and the degree to which such outcomes have been adopted or utilized.

(b) COLLABORATIVE SAFETY RESEARCH REPORT.—

(1) BIENNIAL REPORTS.—Section 60124(a)(6) of title 49, United States Code, is amended—

(A) in subparagraph (A), by striking "and" at the end;

(B) in subparagraph (B), by striking the period at the end and inserting "; and"; and

(C) by adding at the end the following:

"(C) a summary of each research and development project carried out with Federal and non-Federal entities pursuant to section 12 of the Pipeline Safety Improvement Act of 2002 and a review of how the project affects safety.".

(2) PIPELINE SAFETY IMPROVEMENT ACT.—Section 12 of the Pipeline Safety Improvement Act of 2002 (49 U.S.C. 60101 note) is amended—

(A) by striking subsection (d)(3)(C) and inserting the following:

"(C) FUNDING FROM NON-FEDERAL SOURCES.—The Secretary shall ensure that—

"(i) at least 30 percent of the costs of technology research and development activities may be carried out using non-Federal sources;

"(ii) at least 20 percent of the costs of basic research and development with universities may be carried out using non-Federal sources; and

"(iii) up to 100 percent of the costs of research and development for purely governmental purposes may be carried out using Federal funds."; and

(B) by adding at the end the following:

"(h) INDEPENDENT EXPERTS.—Not later than 180 days after the date of enactment of the PIPES Act of 2016, the Secretary shall—

"(1) implement processes and procedures to ensure that activities listed under subsection (c), to the greatest extent practicable, produce results that are peer-reviewed by independent experts and not by persons or entities that have a financial interest in the pipeline, petroleum, or natural gas industries, or that would be directly impacted by the results of the projects; and

"(2) submit to the Committee on Transportation and Infrastructure, the Committee on Energy and Commerce, and the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report describing the processes and procedures implemented under paragraph (1).

"(i) CONFLICT OF INTEREST.—The Secretary shall take all practical steps to ensure that each recipient of an agreement under this section discloses in writing to the Secretary any conflict of interest on a research and development project carried out under this section, and includes any such disclosure as part of the final deliverable pursuant to such agreement. The Secretary may not make an award under this section directly to a pipeline owner