

110TH CONGRESS
1ST SESSION

H. R. 547

To facilitate the development of markets for alternative fuels and Ultra Low Sulfur Diesel fuel through research, development, and demonstration and data collection.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 18, 2007

Mr. GORDON of Tennessee introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

To facilitate the development of markets for alternative fuels and Ultra Low Sulfur Diesel fuel through research, development, and demonstration and data collection.

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 “Advanced Fuels Infra-
5 structure Research and Development Act”.

6 **SEC. 2. FINDINGS.**

7 The Congress finds that—

8 (1) in order to lessen United States dependence
9 on foreign sources of petroleum, and decrease de-

1 mand for petroleum in the transportation sector, the
2 Nation must diversify its fuel supply to include do-
3 mestically produced alternative biobased fuels;

4 (2) while ethanol has been successful in the
5 market place as a fuel additive, newer biobased fuels
6 may present unique challenges that may render the
7 fuels incompatible with the current fuel transpor-
8 tation and delivery infrastructure, placing the bur-
9 den of costly refurbishment and construction on fuel
10 distributors and retailers;

11 (3) chemical additives to the fuels may mitigate
12 the negative impacts of some biobased fuels on exist-
13 ing infrastructure and preclude costly retrofitting or
14 installation of new biobased fuel compatible infra-
15 structure and transportation systems;

16 (4) in order to mitigate air pollution and com-
17 ply with Federal mandates, Ultra Low Sulfur Diesel
18 fuel was introduced into the marketplace in 2006;

19 (5) fuel labeled Ultra Low Sulfur Diesel can ac-
20 cumulate more than the statutory limit of 15 parts
21 per million of sulfur when transported through mul-
22 tiple pipelines, tanks, and trucks to the final point
23 of sale; and

24 (6) fuel distributors and retailers may inadvert-
25 ently take delivery of fuel labeled Ultra Low Sulfur

1 Diesel with more than 15 parts per million of sulfur
2 without a practical means of verifying sulfur con-
3 tent.

4 **SEC. 3. ALTERNATIVE FUEL AND ULSD INFRASTRUCTURE**
5 **AND ADDITIVES RESEARCH AND DEVELOP-**
6 **MENT.**

7 The Secretary of Energy (in this Act referred to as
8 the “Secretary”) , in consultation with the National Insti-
9 tute of Standards and Technology, shall carry out a pro-
10 gram of research, development, demonstration, and com-
11 mercial application of materials to be added to alternative
12 biobased fuels and Ultra Low Sulfur Diesel fuels to make
13 them more compatible with existing infrastructure used to
14 store and deliver petroleum-based fuels to the point of
15 final sale. The program shall address—

- 16 (1) materials to prevent or mitigate—
- 17 (A) corrosion of metal, plastic, rubber,
 - 18 cork, fiberglass, glues, or any other material
 - 19 used in pipes and storage tanks;
 - 20 (B) dissolving of storage tank sediments;
 - 21 (C) clogging of filters;
 - 22 (D) contamination from water or other
 - 23 adulterants or pollutants;
 - 24 (E) poor flow properties related to low
 - 25 temperatures;

1 (F) oxidative and thermal instability in
2 long-term storage and use;

3 (G) increased volatile emissions;

4 (H) microbial contamination;

5 (I) problems associated with electrical con-
6 ductivity; and

7 (J) increased nitrogen oxide emissions;

8 (2) alternatives to conventional methods for re-
9 furbishment and cleaning of gasoline and diesel
10 tanks, including tank lining applications; and

11 (3) other problems as identified by the Sec-
12 retary in consultation with the National Institute of
13 Standards and Technology.

14 **SEC. 4. SULFUR TESTING FOR DIESEL FUELS.**

15 (a) PROGRAM.—The Secretary, in consultation with
16 the National Institute of Standards and Technology, shall
17 carry out a research, development, and demonstration pro-
18 gram on portable, low-cost, and accurate methods and
19 technologies for testing of sulfur content in fuel, including
20 Ultra Low Sulfur Diesel and Low Sulfur Diesel.

21 (b) SCHEDULE OF DEMONSTRATIONS.—Not later
22 than 1 year after the date of enactment of this Act, the
23 Secretary shall begin demonstrations of technologies under
24 subsection (a).

1 **SEC. 5. STANDARD REFERENCE MATERIALS AND DATA**
2 **BASE DEVELOPMENT.**

3 Not later than 6 months after the date of enactment
4 of this Act, the National Institute of Standards and Tech-
5 nology shall develop a physical properties data base and
6 standard reference materials for alternative fuels. Such
7 data base and standard reference materials shall be main-
8 tained and updated as appropriate as additional alter-
9 native fuels become available.

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