

105TH CONGRESS
2D SESSION

S. 2377

To amend the Clean Air Act to limit the concentration of sulfur in gasoline used in motor vehicles.

IN THE SENATE OF THE UNITED STATES

JULY 30, 1998

Mr. MOYNIHAN (for himself, Mr. LEVIN, Mr. JEFFORDS, Mr. LEAHY, Mr. CLELAND, Mr. DURBIN, Mr. D'AMATO, and Mrs. BOXER) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To amend the Clean Air Act to limit the concentration of sulfur in gasoline used in motor vehicles.

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 “Clean Gasoline Act
5 of 1998”.

6 **SEC. 2. FINDINGS.**

7 Congress finds that—

8 (1) according to the National Air Quality and
9 Emissions Trends Report of the Environmental Pro-

1 tection Agency, dated 1996, motor vehicles account
2 for a major portion of the emissions that degrade
3 the air quality of the United States: 49 percent of
4 nitrogen oxides emissions, 26 percent of emissions of
5 particulate matter with an aerodynamic diameter
6 smaller than or equal to 10 micrometers (PM-10),
7 and 78 percent of carbon monoxide emissions;

8 (2)(A) failure to control gasoline sulfur con-
9 centration adversely affects catalytic converter func-
10 tion for all vehicles in the national vehicle fleet; and

11 (B) research performed collaboratively by the
12 auto and oil industries demonstrates that when sul-
13 fur concentration in motor vehicle gasoline is re-
14 duced from 450 parts per million (referred to in this
15 section as “ppm”) to 50 ppm—

16 (i) hydrocarbon emissions are reduced by

17 18 percent;

18 (ii) carbon monoxide emissions are reduced

19 by 19 percent; and

20 (iii) nitrogen oxide emissions are reduced

21 by 8 percent;

22 (3)(A) recent studies conducted by the Amer-
23 ican Automobile Manufacturers Association
24 (AAMA), the Association of International Auto-
25 mobile Manufacturers (AIMA), and the Coordinating

1 Research Council confirm that sulfur in vehicle fuel
2 impairs to an even greater degree the emission con-
3 trols of Low-Emission Vehicles (referred to in this
4 section as “LEVs”) and Ultra-Low-Emission Vehi-
5 cles (referred to in this section as “ULEVs”);

6 (B) because sulfur-induced impairment of ad-
7 vanced technology emission control systems is not
8 fully reversible under normal in-use driving condi-
9 tions, a nationwide, year-round sulfur standard is
10 necessary to prevent impairment of vehicles’ emis-
11 sion control systems as the vehicles travel across
12 State lines;

13 (C) industry research on LEVs and ULEVs
14 demonstrates that when gasoline sulfur concentra-
15 tion is lowered from 330 ppm to 40 ppm—

16 (i) hydrocarbon emissions are reduced by
17 34 percent;

18 (ii) carbon monoxide emissions are reduced
19 by 43 percent; and

20 (iii) nitrogen oxide emissions are reduced
21 by 51 percent;

22 (D) failure to control sulfur in gasoline will in-
23 hibit the introduction of more fuel-efficient tech-
24 nologies, such as direct injection engines and “NO_x

1 trap” after-treatment technology, which require fuel
2 with a very low concentration of sulfur;

3 (E) the technology for removing sulfur from
4 fuel during the refining process is readily available
5 and currently in use; and

6 (F) the reduction of sulfur concentrations in
7 fuel to the level required by this Act is a cost-effec-
8 tive means of improving air quality;

9 (4)(A) gasoline sulfur levels in the United
10 States—

11 (i) average between 300 and 350 ppm and
12 range as high as 1000 ppm; and

13 (ii) are far higher than the levels allowed
14 in many other industrialized nations, and high-
15 er than the levels allowed by some developing
16 nations;

17 (B) the European Union recently approved a
18 standard of 150 ppm to take effect in 2000, to be
19 phased down to 30 through 50 ppm by 2005;

20 (C) Japan has a standard of 50 ppm; and

21 (D) gasoline and diesel fuel in Australia, New
22 Zealand, Taiwan, Hong Kong, Thailand, and Fin-
23 land have significantly lower sulfur concentrations
24 than comparable gasoline and diesel fuel in the
25 United States;

1 (5)(A) California is the only State that regu-
2 lates sulfur concentration in all gasoline sold; and

3 (B) in June 1996, California imposed a 2-part
4 limitation on sulfur concentration in gasoline: a 40
5 ppm per gallon maximum, or a 30 ppm per gallon
6 annual average with an 80 ppm per gallon maxi-
7 mum;

8 (6)(A) a 1998 regulatory impact analysis by the
9 California Air Resources Board reports that air
10 quality improved significantly in the year following
11 the introduction of low sulfur gasoline; and

12 (B) the California Air Resources Board credits
13 low sulfur gasoline with reducing ozone levels by 10
14 percent on the South Coast, 12 percent in Sac-
15 ramento, and 2 percent in the Bay Area; and

16 (7)(A) reducing sulfur concentration in gasoline
17 to the level required by this Act is a cost-effective
18 pollution prevention measure that will provide sig-
19 nificant and immediate benefits; and

20 (B) unlike vehicle hardware requirements that
21 affect only new model years, sulfur control produces
22 the benefits of reduced emissions of air pollutants
23 across the vehicle fleet immediately upon implemen-
24 tation.

1 **SEC. 3. SULFUR CONCENTRATION REQUIREMENTS FOR**
2 **GASOLINE.**

3 (a) IN GENERAL.—Section 211 of the Clean Air Act
4 (42 U.S.C. 7545) is amended—

5 (1) by redesignating subsection (o) as sub-
6 section (p); and

7 (2) by inserting after subsection (n) the follow-
8 ing:

9 “(o) SULFUR CONCENTRATION REQUIREMENTS FOR
10 GASOLINE.—

11 “(1) IN GENERAL.—

12 “(A) REQUIREMENT.—Subject to subpara-
13 graph (B), effective beginning 4 years after the
14 date of enactment of this paragraph, a person
15 shall not manufacture, sell, supply, offer for
16 sale or supply, dispense, transport, or introduce
17 into commerce motor vehicle gasoline that con-
18 tains a concentration of sulfur that is greater
19 than 40 parts per million per gallon of gasoline.

20 “(B) ALTERNATIVE METHOD OF MEASUR-
21 ING COMPLIANCE.—A person shall not be con-
22 sidered to be in violation of paragraph (1) if the
23 person manufactures, sells, supplies, offers for
24 sale or supply, dispenses, transports, or intro-
25 duces into commerce, during any 1-year period,
26 motor vehicle gasoline that contains a con-

1 centration of sulfur that is greater than 40 but
2 less than or equal to 80 parts per million per
3 gallon of gasoline, if the average concentration
4 of sulfur in the motor vehicle gasoline manufac-
5 tured, sold, supplied, offered for sale or supply,
6 dispensed, transported, or introduced into com-
7 merce by the person during the period is less
8 than 30 parts per million per gallon of gasoline.

9 “(C) REGULATIONS.—The Administrator
10 shall promulgate such regulations as are nec-
11 essary to carry out this paragraph.

12 “(2) LOWER SULFUR CONCENTRATION.—The
13 Administrator may promulgate regulations to estab-
14 lish maximum and average allowable sulfur con-
15 centrations in motor vehicle gasoline that are lower
16 than the concentrations specified in paragraph (1) if
17 the Administrator determines that—

18 “(A) research conducted after the date of
19 enactment of this subparagraph indicates that
20 significant air quality benefits would result
21 from a reduction in allowable sulfur concentra-
22 tion in motor vehicle gasoline; or

23 “(B) advanced vehicle technologies have
24 been developed that can significantly reduce
25 emissions of air pollutants from motor vehicles

1 but that require motor vehicle gasoline with a
2 lower concentration of sulfur than that specified
3 in paragraph (1).”.

4 (b) PENALTIES AND INJUNCTIONS.—Section 211(d)
5 of the Clean Air Act (42 U.S.C. 7545(d)) is amended—

6 (1) in paragraph (1), by striking “or (n)” each
7 place it appears and inserting “(n), or (o)”; and

8 (2) in paragraph (2), by striking “and (n)”
9 each place it appears and inserting “(n), and (o)”.

10 **SEC. 4. REPORTS TO CONGRESS.**

11 Not later than 6 years, and not later than 8 years,
12 after the date of enactment of this Act, the Administrator
13 of the Environmental Protection Agency shall submit to
14 Congress a report that documents the effects of use of
15 low sulfur motor vehicle gasoline on urban and regional
16 air quality.

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