

106TH CONGRESS
1ST SESSION

S. 171

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

JANUARY 19, 1999

Mr. MOYNIHAN (for himself, Mr. LEVIN, Mr. LEAHY, Mr. SCHUMER, Mrs. BOXER, and Mr. CLELAND) 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 1999”.

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-
10 tection Agency, dated 1996, motor vehicles account

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

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

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

15 (i) hydrocarbon emissions are reduced by
16 18 percent;

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

19 (iii) nitrogen oxide emissions are reduced
20 by 8 percent;

21 (3)(A) recent studies conducted by the the As-
22 sociation of International Automobile Manufactur-
23 ers, and the Coordinating Research Council confirm
24 that sulfur in vehicle fuel impairs to an even greater
25 degree the emission controls of Low-Emission Vehi-

1 cles (referred to in this section as “LEVs”) and
2 Ultra-Low-Emission Vehicles (referred to in this sec-
3 tion as “ULEVs”);

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

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

14 (i) hydrocarbon emissions are reduced by
15 34 percent;

16 (ii) carbon monoxide emissions are reduced
17 by 43 percent; and

18 (iii) nitrogen oxide emissions are reduced
19 by 51 percent;

20 (D) failure to control sulfur in gasoline will in-
21 hibit the introduction of more fuel-efficient tech-
22 nologies, such as direct injection engines and “NO_x
23 trap” after-treatment technology, which require fuel
24 with a very low concentration of sulfur;

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

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

7 (4)(A) gasoline sulfur levels in the United
8 States—

9 (i) average between 300 and 350 ppm and
10 range as high as 1000 ppm; and

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

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

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

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

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

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

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

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

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

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

13 “(A) REPORT.—

14 “(i) INITIAL REPORT.—Not later than
15 6 years after the date of enactment of this
16 subsection, the Administrator shall submit
17 to Congress a report that documents the
18 effects of use of low sulfur motor vehicle
19 gasoline on urban and regional air quality.

20 “(ii) FOLLOWUP REPORT.—Not later
21 than 2 years after the date of the initial
22 report under clause (i), the Administrator
23 shall submit a report updating the infor-
24 mation contained in the initial report.

1 “(B) REGULATION.—After the date of the
2 initial report under subparagraph (A)(i), the
3 Administrator may promulgate a regulation to
4 establish maximum and average allowable sul-
5 fur concentrations in motor vehicle gasoline
6 that are lower than the concentrations specified
7 in paragraph (1) if the Administrator deter-
8 mines that—

9 “(i) research conducted after the date
10 of enactment of this subsection indicates
11 that significant air quality benefits would
12 result from a reduction in allowable sulfur
13 concentration in motor vehicle gasoline; or

14 “(ii) advanced vehicle technologies
15 have been developed that can significantly
16 reduce emissions of air pollutants from
17 motor vehicles but that require motor vehi-
18 cle gasoline with a lower concentration of
19 sulfur than that specified in paragraph
20 (1).”.

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

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

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

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