

MAINE STATE LEGISLATURE

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1 FIRST REGULAR SESSION
2

3 ONE HUNDRED AND ELEVENTH LEGISLATURE
4

5 Legislative Document

No. 1680

6
7 H.P. 1259

House of Representatives, May 23, 1983

8 Submitted by the Department of Environmental Protection pursuant to
9 Joint Rule 24.

10 Referred to the Committee on Energy and Natural Resources. Sent up for
concurrence and ordered printed.

EDWIN H. PERT, Clerk

Presented by Representative Hall of Sangerville.

11 Cosponsor: Senator Kany of Kennebec.

12 STATE OF MAINE
13

14 IN THE YEAR OF OUR LORD
15 NINETEEN HUNDRED AND EIGHTY-THREE
16

17 AN ACT to Establish and Amend the Air
18 Emission and Open-burning Standards.
19

20 Be it enacted by the People of the State of Maine as
21 follows:

22 Sec. 1. 12 MRSA §9321, sub-§1, ¶D, as enacted by
23 PL 1979, c. 545, §3, is repealed and the following
24 enacted in its place:

25 D. The matter and type of burning proposed,
26 giving due consideration to prohibitions and
27 permissible open-burning regulations of the
28 Department of Environmental Protection under
29 Title 38, section 599;

30 Sec. 2. 12 MRSA §9321, sub-§2, as enacted by PL
31 1979, c. 545, §3, is repealed and the following
32 enacted in its place:

1 2. Revocation. The director or his delegate may
2 revoke any permit during a period of high forest fire
3 danger or any permit which results in creation of a
4 nuisance condition without compliance with the provi-
5 sions of Title 4, chapter 25 or Title 5, chapter 375.

6 Sec. 3. 12 MRSA §9321, sub-§4, as enacted by PL
7 1979, c. 545, §3, is repealed and the following
8 enacted in its place:

9 4. Conditions. The director may issue a permit
10 with stated conditions or restrictions to insure ade-
11 quate control of permitted fires in accordance with
12 criteria of subsection 1 and conformity to regula-
13 tions of the Department of Environmental Protection
14 under Title 38, section 599.

15 Sec. 4. 25 MRSA §2436-A, as amended by PL 1981,
16 c. 115, is repealed and the following enacted in its
17 place:

18 §2436-A. Out-of-doors burning

19 1. Permit required. No person, firm or corpora-
20 tion may burn out of doors without a permit from a
21 municipal fire chief, town forest fire warden or
22 forest ranger, except as provided in Title 12, sec-
23 tions 9322 and 9324 and subsection 3.

24 2. Domestic trash. Residential burning of
25 highly combustible domestic, household trash in
26 incinerators is allowed where no municipal property
27 tax supported trash collection service is available
28 or will accept those materials provided that the
29 incinerator has been inspected and approved by a
30 municipal fire chief, town forest fire warden or
31 forest ranger using minimum criteria established by
32 the director for safe fire operation.

33 3. Burning at municipal solid waste disposal
34 facilities. Open burning at municipal solid waste
35 disposal facilities in compliance with Department of
36 Environmental Protection regulation, Title 38,
37 section 599 and Department of Conservation regula-
38 tion, Title 12, chapter 807, subchapter IV, is
39 allowed without a permit.

40 4. Violation. Whoever violates this section is
41 guilty of a Class E crime.

1 Sec. 5. 38 MRSA §599, as amended by PL 1981, c.
2 273, §§1 to 3, is repealed and the following enacted
3 in its place:

4 §599. Open burning

5 1. Scope. This section:

6 A. Shall be applicable in all ambient air qual-
7 ity regions in this State; and

8 B. Shall not interfere with or supersede any
9 local law or ordinance which is more stringent.

10 2. Prohibitions. The following open-burning ac-
11 tivities and materials shall be prohibited.

12 A. Open burning of tires, rubber products,
13 asphalt shingles and wire insulation is prohib-
14 ited.

15 B. Open burning of solid waste materials, other
16 than brush and demolition debris, at a municipal
17 solid waste disposal site serving 1,000 or more
18 persons is prohibited.

19 C. Open burning of solid waste material at any
20 existing municipal solid waste disposal site
21 servicing less than 1,000 persons that has been in
22 continuous operation since August 7, 1977, shall
23 only be prohibited where the Board of Environ-
24 mental Protection, after investigation and hear-
25 ing, finds that open burning at that specific
26 municipal site has caused violation of ambient
27 air quality standards.

28 D. Open burning of solid waste material, other
29 than brush and demolition debris, at any new
30 municipal solid waste disposal site which
31 received its initial site location of development
32 permit after August 7, 1977, is prohibited.

33 E. Residential open burning of rubbish, refuse,
34 garbage, human and animal remains and by-product
35 waste such as tar, paints, solvents and sludge,
36 as defined in section 582, subsection 12, is pro-
37 hibited.

1 F. The residential open burning of highly com-
2 bustible domestic, household trash such as paper,
3 cardboard cartons, wood boxes, as defined in
4 section 582, subsection 12, is prohibited where a
5 municipal property tax supported trash collection
6 service is available and will accept those mate-
7 rials.

8 G. The residential open burning of leaves,
9 brush, deadwood and tree cuttings accrued from
10 normal property maintenance by the individual
11 land or homeowner or lessee thereof is prohibited
12 where a municipal property tax supported trash
13 collection service is available and will accept
14 those materials.

15 H. No person, firm, corporation, association,
16 municipal or state agency may engage in any open
17 burning except in conformity with subsection 3.

18 3. Permissible open burning with permit. When
19 not prohibited by local ordinances, the following
20 types of burning are permissible if a permit has been
21 obtained from the fire warden, forest ranger or local
22 fire prevention official having jurisdiction over the
23 location where the fire is to be set, so long as the
24 burning is conducted according to the terms and con-
25 ditions of the permit and provided that no nuisance
26 is created:

27 A. Campfires;

28 B. Fires in conjunction with holiday and festive
29 celebrations;

30 C. Burning of solid or liquid fuels and struc-
31 tures for the purpose of research or bona fide
32 instruction and training of municipal, volunteer
33 and industrial fire fighters in methods of fight-
34 ing fires when conducted under the direct control
35 and supervision of qualified instructors;

36 D. Burning for agricultural purposes which
37 include, but are not limited to, open burning of
38 blueberry fields, potato tops, hayfields and pre-
39 scribed burning for timberland management;

1 E. Residential open burning of highly combusti-
2 ble domestic, household trash such as paper,
3 cardboard cartons, wood boxes, as defined in
4 section 582, subsection 12, is permissible where
5 no municipal property tax supported trash collec-
6 tion service is available or will accept those
7 materials;

8 F. Residential open burning of leaves, brush,
9 deadwood and tree cuttings accrued from normal
10 property maintenance by the individual land or
11 homeowner or lessees thereof is permissible where
12 no municipal property tax supported trash collec-
13 tion service is available or will accept those
14 materials;

15 G. Burning for the disposal of materials, other
16 than those prohibited in subsection 2, paragraph
17 A, generated from the clearing of any land or
18 erection, modification, maintenance, demolition
19 or construction of any highway, railroad, power
20 line, communication line, pipeline, building or
21 development, either on site, or at any municipal
22 solid waste disposal facility where open burning
23 of that material is not expressly prohibited;

24 H. Burning for hazardous abatement purposes such
25 as, but not limited to, the burning of grass
26 fields; and

27 I. Burning for the containment or control of
28 spills of gasoline, kerosene, heating oil or
29 similar petroleum product.

30 4. Permissible open burning without permit.
31 When not prohibited by local ordinances, the follow-
32 ing types of burning are permissible without permit
33 so long as no nuisance is created:

34 A. Residential use of outdoor grills and
35 fireplaces for recreational purposes such as pre-
36 paring food; and

37 B. The burning of brush and demolition debris at
38 municipal solid waste disposal facilities.

39 Sec. 6. 38 MRSa §600, as amended by PL 1979, c.
40 476, §§4 and 5, is repealed and the following enacted
41 in its place:

1 §600. Fuel-burning equipment particulate emission
2 standard

3 1. Scope. This chapter shall apply to all fuel-
4 burning or solid waste fuel-burning equipment locat-
5 ed in the State and having a rated capacity of 3 mil-
6 lion British Thermal Units per hour or greater.

7 2. Emission standards for existing sources. Any
8 source which has applied for an air emission license
9 prior to December 22, 1982, shall limit particulate
10 emissions as follows.

11 A. Emission standards for oil-gas
12 petroleum-burning sources are as follows.

13 (1) Any source burning distillate or resi-
14 dual fuel oil, gas or other petroleum
15 product shall not exceed 0.20 pounds partic-
16 ulate per million British Thermal Units.
17 Any source which cannot achieve the 0.20
18 pounds particulate per million British Ther-
19 mal Units limit will be allowed to operate
20 at that higher emission rate, but not to
21 exceed 0.30 pounds particulate matter per
22 million British Thermal Units, if it
23 installs automatic fuel viscosity controls
24 integrated into the fuel oil controls and
25 combustion efficiency instrumentation. The
26 source will be allowed a period of one year
27 from the date of demonstration of noncompli-
28 ance to install the controls.

29 B. Emission standards for coal-burning sources
30 are as follows.

31 (1) Any coal-burning source with a heat
32 input capacity of less than 50 million Brit-
33 ish Thermal Units per hour shall not exceed
34 0.30 pounds particulate per million British
35 Thermal Units.

36 (2) Any coal-burning source, including one
37 presently burning oil but designed to burn
38 coal, with a heat input capacity of 50 mil-
39 lion British Thermal Units per hour or
40 greater shall not exceed 0.08 pounds partic-
41 ulate per million British Thermal Units.

1 C. Emission standards for wood-burning sources
2 are as follows.

3 (1) Any source designed to burn wood, bark,
4 chips, sawdust, pulp mill sludge or similar
5 forest product, including those with supple-
6 mentary oil-firing capabilities, with a heat
7 input capacity of less than 150 million
8 British Thermal Units per hour shall not
9 exceed an emission rate defined according to
10 the following equation, even during periods
11 of burning only oil.

12 $\log y = 0.034 - 0.256 \log x$
13 where y = allowable emission rate
14 expressed in pounds partic-
15 ulate per million British
16 Thermal Units

17 x = equipment capacity expressed
18 in millions of British Thermal
19 Units per hour

20 (2) Any source designed to burn wood, bark,
21 chips, sawdust, pulp mill sludge or similar
22 forest product, including those with supple-
23 mentary oil-firing capabilities, with a heat
24 input capacity of 150 million British Ther-
25 mal Units per hour or greater shall not
26 exceed 0.30 pounds particulate per million
27 British Thermal Units.

28 D. Emission standards for solid waste burning
29 sources are as follows.

30 (1) Any source burning refuse, garbage,
31 trash or any combination of municipal or
32 industrial solid waste shall not exceed the
33 limits of section 601, the incinerator
34 particulate emission standard.

35 3. Emission standards for new sources. Any
36 fuel-burning equipment which applies for an air emis-
37 sion license after December 22, 1982, shall limit
38 particulate emissions as follows.

39 A. Emission standards for oil-gas petroleum
40 burning sources are as follows.

1 (1) Any source burning distillate or resi-
2 dual fuel oil, gas or other petroleum
3 product with a heat input capacity of less
4 than 50 million British Thermal Units per
5 hour shall not exceed 0.12 pounds partic-
6 ulate per million British Thermal Units.

7 (2) Any source burning distillate or resi-
8 dual fuel oil-gas or other petroleum product
9 with a heat input capacity of 50 million
10 British Thermal Units per hour or greater,
11 but less than 250 million British Thermal
12 Units per hour, shall not exceed 0.08 pounds
13 particulate per million British Thermal
14 Units.

15 (3) Any source burning distillate or resi-
16 dual fuel oil, gas or other petroleum
17 product with a heat input capacity of
18 greater than 250 million British Thermal
19 Units per hour shall not exceed 0.06 pounds
20 particulate per million British Thermal
21 Units.

22 B. Solid waste burning sources are as follows.

23 (1) Any source burning refuse, garbage,
24 trash or any combination of municipal or
25 industrial solid waste with a heat input
26 capacity of less than 50 million British
27 Thermal Units per hour shall not exceed 0.30
28 pounds particulate per million British Ther-
29 mal Units.

30 (2) Any source burning refuse, garbage,
31 trash or any combination of municipal or
32 industrial solid waste with a heat input
33 capacity of 50 million British Thermal Units
34 per hour or greater, but less than 250 mil-
35 lion British Thermal Units per hour, shall
36 not exceed 0.20 pounds particulate per mil-
37 lion British Thermal Units.

38 (3) Any source burning refuse, garbage,
39 trash or any combination of municipal or
40 industrial solid waste with a heat input
41 capacity of 250 million British Thermal
42 Units per hour or greater shall not exceed

1 0.10 pounds particulate per million British
2 Thermal Units.

3 C. Coal-burning sources are as follows.

4 (1) Any coal-burning source with a heat
5 input capacity of less than 50 million Brit-
6 ish Thermal Units per hour shall not exceed
7 0.30 pounds particulate per million British
8 Thermal Units.

9 (2) Any coal-burning source with a heat
10 input capacity equal to or greater than 50
11 million British Thermal Units per hour, but
12 less than 250 million British Thermal Units
13 per hour, shall not exceed 0.08 pounds
14 particulate per million British Thermal
15 Units.

16 (3) Any coal-burning source with a heat
17 input capacity of 250 million British Ther-
18 mal Units per hour or greater shall not
19 exceed 0.05 pounds particulate per million
20 British Thermal Units.

21 D. Wood, coal, biomass burning sources are as
22 follows.

23 (1) Any biomass boiler, so called, designed
24 to burn wood, coal, sludge, petroleum
25 product or other such combustible fuel,
26 alone or in combination, with a heat input
27 capacity of less than 50 million British
28 Thermal Units per hour shall not exceed 0.30
29 pounds particulate per million British Ther-
30 mal Units.

31 (2) Any biomass boiler, so called, designed
32 to burn wood, coal, sludge, petroleum
33 product or other such combustible fuel,
34 alone or in combination, with a heat input
35 capacity of 50 million British Thermal Units
36 per hour or greater, but less than 250 mil-
37 lion British Thermal Units per hour, shall
38 not exceed 0.08 pounds particulate per mil-
39 lion British Thermal Units when burning the
40 primary fuel or fuel combinations within the
41 range of design rate proportions. When

1 burning a fuel other than the primary design
2 fuel or a combination of fuels outside the
3 range of design rate proportions, the
4 particulate emissions shall not exceed 0.10
5 pounds particulate per million British Ther-
6 mal Units, provided that the particulate
7 matter control equipment is being operated
8 to maximize particulate removal.

9 (3) Any biomass boiler, so called, designed
10 to burn wood, coal, sludge, petroleum
11 product or other such combustible fuel,
12 alone or in combination, with a heat input
13 capacity of 250 million British Thermal
14 Units per hour or greater, shall not exceed
15 0.06 pounds particulate per million British
16 Thermal Units when burning the primary fuel
17 or fuel combinations within the range of
18 design rate proportions. When burning a
19 fuel other than the primary design fuel, or
20 a combination of fuels outside the range of
21 design rate proportions, the particulate
22 emissions shall not exceed 0.10 pounds
23 particulate per million British Thermal
24 Units, provided that the control equipment
25 is being operated and maintained to maximize
26 particulate removal.

27 (4) Any biomass boiler, so called, designed
28 to burn wood, coal, sludge, petroleum
29 product or other such combustible fuel,
30 alone or in combination, with a heat input
31 capacity of 50 million British Thermal Units
32 per hour or greater, which uses a venturi
33 scrubber providing 75% or greater sulfur
34 dioxide removal shall be exempt from the
35 provisions of subparagraphs (2) and (3) and
36 shall not exceed 0.10 pounds particulate per
37 million British Thermal Units.

38 4. Test methods and procedures. Compliance
39 shall be determined by test methods and procedures
40 approved on or before December 22, 1982, or any
41 method providing equivalent accuracy and reliability
42 subsequently approved by the board.

43 5. Exemptions. Any source considered new ac-
44 cording to subsection 3, but which equipment has been

1 previously owned and operated, shall be exempt from
2 the provisions of subsection 3 and will be subject to
3 case-by-case emission limitations not to exceed the
4 respective emission limitations of subsection 2.

5 Sec. 7. 38 MRSA §603, as amended by PL 1975, c.
6 669, §4, is repealed.

7 Sec. 8. 38 MRSA §603-A is enacted to read:

8 §603-A. Low sulfur fuel

9 1. Scope. This section shall apply to those
10 fuel-burning sources in the State which are not re-
11 quired to achieve the lower emission rates of new
12 source performance standards or as required to
13 satisfy the case-by-case requirements of best avail-
14 able control technology.

15 2. Prohibitions. Except as provided in subsec-
16 tions 4 and 5, no person may use any liquid fossil
17 fuel with a sulfur content exceeding the limits in
18 paragraph A or any solid fossil fuel with a sulfur
19 content to heat content ratio exceeding the limits of
20 paragraph B.

21 A. The sulfur content for liquid fossil fuels is
22 as follows.

23 (1) In the central Maine, downeast,
24 Aroostook County and northwest Maine air
25 quality control regions, no person may use
26 any liquid fossil fuel with a sulfur content
27 greater than 2.5% by weight any time after
28 November 1, 1973. In the Metropolitan Port-
29 land Air Quality Control Region outside the
30 Portland Peninsula Air Quality Control
31 Region, no person may use any liquid fossil
32 fuel with a sulfur content greater than 2.5%
33 by weight any time after June 1, 1975.

34 (2) In the Portland Peninsula Air Quality
35 Control Region, no person may use any liquid
36 fossil fuel with a sulfur content greater
37 than 1.5% by weight any time after November
38 1, 1975.

39 (3) In the Portland Peninsula Air Quality

1 Control Region, no person may use any liquid
2 fossil fuel with a sulfur content greater
3 than 1.0% by weight any time after November
4 1, 1985.

5 B. The sulfur content for solid fossil fuels is
6 as follows:

7 (1) 1.2 pounds sulfur per million British
8 Thermal Units calculated as a calendar quar-
9 ter average for sources in the central
10 Maine, downeast, Aroostook County, northwest
11 Maine and that portion of the Metropolitan
12 Portland Air Quality Region outside the
13 Portland Peninsula Air Quality Region. A
14 calendar quarter shall be composed of the
15 months as follows: (1) January, February,
16 March; (2) April, May, June; (3) July,
17 August, September; and (4) October, Novem-
18 ber, December;

19 (2) 0.72 pounds sulfur per million British
20 Thermal Units calculated as a calendar quar-
21 ter average for sources in the Portland
22 Peninsula Air Quality Region until November
23 1, 1985. A calendar quarter shall be com-
24 posed of the months as follows: (1) January,
25 February, March; (2) April, May, June; (3)
26 July, August, September; and (4) October,
27 November, December; and

28 (3) 0.48 pounds sulfur per million British
29 Thermal Units calculated as a calendar quar-
30 ter average for sources in the Portland
31 Peninsula Air Quality Region after November
32 1, 1985. A calendar quarter shall be com-
33 posed of the months as follows: (1) January,
34 February, March; (2) April, May, June; (3)
35 July, August, September; and (4) October,
36 November, December.

37 3. Records. Record-keeping requirements are as
38 follows.

39 A. Any person importing residual oil or bitumi-
40 nous coal into the State shall submit to the
41 Department of Environmental Protection a quar-
42 terly report itemizing the quantity, sulfur con-

1 tent, ash content and heat content for each ship-
2 ment of the fuel. Reports covering each pre-
3 ceding quarter shall be submitted by the end of
4 the month following the end of the calendar quar-
5 ter. It shall be the responsibility of the
6 person importing the fuel to maintain a record of
7 the certified fuel analyses upon which the quar-
8 terly reports are based and provide the user a
9 copy of the certification.

10 B. Any person achieving compliance by means of
11 blending fuels shall submit to the Department of
12 Environmental Protection quarterly reports indi-
13 cating the respective fuel volumes, sulfur con-
14 tents and heat contents.

15 C. Any person achieving compliance by means of
16 flue gas desulfurization or other sulfur removal
17 processes shall submit to the Department of Envi-
18 ronmental Protection quarterly reports indicating
19 delivered fuel sulfur contents, a summary of
20 sulfur dioxide concentrations from a continuous
21 in-stack monitor and identifying any period of
22 equipment malfunction or other outage.

23 4. Flue gas desulfurization. Any source that
24 installs any approved flue gas desulfurization system
25 or other prescribed sulfur removal device shall be
26 permitted to use fuel with a sulfur content in excess
27 of the limitations of subsection 2 such that, after
28 control, total sulfur dioxide emissions do not exceed
29 2.4 pounds of sulfur dioxide per million British
30 Thermal Units in any 24-hour period, or emission
31 rates corresponding to the fuel sulfur limitations
32 required for sources on the Portland peninsula.

33 5. Fuel blending. Any source may achieve com-
34 pliance with the fuel sulfur limitations of subsec-
35 tion 2 by means of blending low sulfur fuel with a
36 higher sulfur fuel, proportioned on the basis of
37 relative heat content of each fuel.

38 6. Test methods and procedures. Test methods
39 and procedures are as follows.

40 A. Any source achieving compliance using flue
41 gas desulfurization or other sulfur removal pro-
42 cesses, or fuel blending involving one noncompli-

1 ance grade fuel, shall demonstrate compliance
2 through the installation and operation of an
3 approved continuous in-stack sulfur dioxide moni-
4 tor.

5 B. Whenever compliance is demonstrated by the
6 analysis of bulk residual oil American Society
7 for Testing and Materials Methods D129 or 1552,
8 or equivalent procedures as approved by the com-
9 missioner, shall be used.

10 C. Whenever compliance is demonstrated by the
11 analysis of bulk coal, Environmental Protection
12 Agency Method 19 as published at 44 Federal
13 Register 33580, dated June 11, 1979, or equiva-
14 lent procedures as approved by the commissioner,
15 shall be used. Method 19 includes the following
16 procedures:

17 (1) American Society for Testing and Mate-
18 rials D2234 for sample collection;

19 (2) American Society for Testing and Mate-
20 rials D2013 for sample preparation;

21 (3) American Society for Testing and Mate-
22 rials D3177 for sulfur analysis;

23 (4) American Society for Testing and Mate-
24 rials D3173 for moisture analysis; and

25 (5) American Society for Testing and Mate-
26 rials D3176 for gross calorific value deter-
27 mination.

28 7. Emergency variance. If, during periods of
29 energy crisis or equipment outage or natural disas-
30 ters, an oil supplier is unable to supply conforming
31 fuel, that supplier may apply for a temporary vari-
32 ance to the Commissioner of Environmental Protection.
33 The commissioner may, without hearing, issue that
34 variance for the supplier and his regular users for a
35 period not to exceed 60 days if the application, in
36 his judgment, meets the criteria of the applicable
37 statutory variance requirements and that the emer-
38 gency action is necessary to avoid an immediate
39 threat to public health, safety or general welfare.
40 The temporary variance cannot be renewed.

1

STATEMENT OF FACT

2 Sections 1, 2, 3, 4 and 5 are intended to resolve
3 certain conflicts between the Department of Environ-
4 mental Protection and the Department of Conservation
5 open-burning rules and clarifies for the public
6 permissible open-burning activities. These rules
7 specify the prohibition of open burning of certain
8 materials and activities, the criteria for issuing
9 and revoking open-burning permits and preventative
10 measures and restrictions for out-of-doors burning.

11 Section 6 specifies allowable particulate emis-
12 sion rates for all new and existing fuel-burning
13 equipment with a capacity greater than 3 million
14 British Thermal Units per hour. Specific limits are
15 established for coal, oil and gas, solid waste and
16 wood-burning equipment.

17 Sections 7 and 8 establish a sulfur content limit
18 for solid fossil fuels, coal, on a pounds sulfur per
19 million British Thermal Unit basis to account for the
20 difference in heat content and sulfur variability
21 between liquid fossil fuels, oil and coal. The
22 existing sulfur content limits established for liquid
23 fossil fuels remains unchanged.

24 Section 8 also specifies record-keeping require-
25 ments for residual oil or bituminous coal importers
26 and test methods to be used to demonstrate compliance
27 with the rule.

28

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