



House of Representatives

File No. 656

General Assembly

January Session, 2003

(Reprint of File No. 433)

House Bill No. 6048
As Amended by House
Amendment Schedule "A"

Approved by the Legislative Commissioner
May 9, 2003

AN ACT CONCERNING MERCURY EMISSIONS FROM COAL-FIRED ELECTRICITY GENERATORS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. (NEW) (*Effective from passage*) For purposes of sections 2
2 and 3 of this act:

3 (1) "Affected unit" means any emissions unit that generates
4 electricity in the state and combusts coal in an amount greater than ten
5 per cent of its total heat input on a rolling twelve-month basis.

6 (2) "Alternative emissions limit" means a mercury emissions limit
7 established by the Commissioner of Environmental Protection for an
8 affected unit.

9 (3) "Calendar quarter" means the period of January first to March
10 thirty-first, inclusive, April first to June thirtieth, inclusive, July first to
11 September thirtieth, inclusive, or October first to December thirty-first,
12 inclusive.

13 (4) "Inlet conditions" means either: (A) The concentration of mercury

14 in the flue gas exiting the combustion source prior to application of
15 any air pollution control device; or (B) in the case of a fluidized bed
16 combustion unit, the concentration of mercury input to the combustion
17 source based on representative fuel sampling and analysis, as
18 determined by the Commissioner of Environmental Protection.

19 (5) "Mercury" means mercury and mercury compounds in either a
20 gaseous or particulate form.

21 (6) "TBtu" means trillion BTU of heat input.

22 (7) "Fluidized bed combustion unit" means a combustion unit in
23 which fuel is introduced into a layer of solid particles kept in turbulent
24 motion by air that is forced into the layer from below, resulting in a
25 thorough mixing and intimate contact of the fuel and other reactants.

26 Sec. 2. (NEW) (*Effective from passage*) (a) On and after July 1, 2008,
27 the owner or operator of an affected unit or units shall: (1) Meet an
28 emissions rate of equal to or less than 0.6 pounds of mercury per TBtu,
29 or (2) meet a mercury emissions rate equal to a ninety per cent
30 reduction of mercury from the measured inlet conditions for the
31 affected unit, whichever emissions rate is more readily achievable by
32 such affected unit, as determined by the owner or operator of such
33 affected unit. Compliance with the requirements of this subsection
34 shall be demonstrated in accordance with the provisions of subsection
35 (c) of this section.

36 (b) (1) If the owner or operator of any affected unit properly installs
37 and operates control technology designed to achieve the mercury
38 emissions rate requirement of subsection (a) of this section and such
39 technology fails to achieve said emission rate, such owner or operator
40 shall notify the Commissioner of Environmental Protection of such
41 failure no later than February 1, 2009. Such owner or operator shall
42 submit each quarterly stack test from such affected unit to the
43 Commissioner of Environmental Protection for evaluation and
44 establishment of an alternative emissions limit for such affected unit
45 based upon the optimized performance of such properly installed and

46 operated control technology. The Commissioner of Environmental
47 Protection shall establish an alternative emissions limit for any such
48 affected unit no later than April 1, 2010.

49 (2) Upon the establishment of an alternative emissions limit for an
50 affected unit, pursuant to subdivision (1) of this subsection, the
51 Commissioner of Environmental Protection shall incorporate such
52 alternative emissions limit into the Title V permit for such affected
53 unit. Thereafter, upon any application for renewal of such Title V
54 permit, the Commissioner of Environmental Protection shall conduct a
55 review of such affected unit's alternative emissions limit and may
56 impose a more stringent alternative emissions limit based upon any
57 new data regarding the demonstrated control capabilities of the type
58 of control technology installed and operated at such affected unit.

59 (3) If the owner or operator of any affected unit properly installs and
60 operates control technology designed to achieve the mercury
61 emissions rate requirement established in subsection (a) of this section,
62 but such technology fails to achieve such emissions requirement, and
63 such owner or operator notifies the Commissioner of Environmental
64 Protection of such failure no later than February 1, 2009, the owner or
65 operator of such affected unit shall demonstrate compliance with the
66 requirements of subsection (a) of this section for the period beginning
67 July 1, 2008, and ending on the date of the issuance of an alternative
68 emissions limit, pursuant to subdivision (1) of this subsection, by
69 operating and maintaining such affected unit, including any associated
70 air pollution control equipment, in a manner consistent with good air
71 pollution control practices for the minimization of mercury emissions,
72 as determined by the Commissioner of Environmental Protection. In
73 determining whether the owner or operator of such affected unit is
74 operating and maintaining such affected unit in a manner consistent
75 with good air pollution control practices for the minimization of
76 mercury emissions, the Commissioner of Environmental Protection
77 may review the emissions monitoring results and operating and
78 maintenance procedures of such unit and may inspect such affected
79 unit.

80 (c) (1) Any stack test used to demonstrate compliance with the
81 mercury emissions rate requirements of subsection (a) of this section or
82 used in the establishment or compliance with an alternative emissions
83 limit pursuant to subsection (b) of this section, shall be based on the
84 average of the stack tests conducted during the two most recent
85 calendar quarters for an affected unit and shall be conducted on a
86 calendar quarter basis in accordance with the Environmental
87 Protection Agency's Method 29 for the determination of metal
88 emissions from stationary sources, as set forth in 40 CFR 60, Appendix
89 A, as amended from time to time, or any other alternative method
90 approved by the Environmental Protection Agency or the
91 Commissioner of Environmental Protection. Such stack tests shall be
92 conducted while combusting coal or coal blends that are representative
93 of the coal or coal blends combusted at such affected unit during the
94 calendar quarter represented by such stack test.

95 (2) If the Commissioner of Environmental Protection determines
96 that continuous emission monitors for mercury in flue gases are
97 commercially available and can perform in accordance with National
98 Institute of Technology Standards, or other methodology approved by
99 the Environmental Protection Agency, the owner or operator of any
100 affected unit shall properly install and operate such continuous
101 emission monitors and shall not be required to conduct stack testing
102 on a calendar quarter basis. When reporting compliance with the
103 mercury emissions rate requirement of subsection (a) or (b) of this
104 section, as applicable, the owner or operator of an affected unit shall
105 use an average of the continuous emission monitor data recorded at
106 such affected unit during the most recent calendar quarter.

107 (d) The owner or operator of any affected unit shall, for each
108 calendar quarter, report to the Commissioner of Environmental
109 Protection the results of any stack test or average of the continuous
110 emission monitor data, as applicable, used to demonstrate compliance
111 with the provisions of this section. Such reports shall be submitted on
112 such forms as may be prescribed by the Commissioner of
113 Environmental Protection.

114 (e) The provisions of this section, when implemented by the
115 Commissioner of Environmental Protection, shall not suspend any
116 underlying procedures or requirements as set forth in the regulations
117 of Connecticut state agencies.

118 Sec. 3. (NEW) (*Effective from passage*) On or before July 1, 2012, the
119 Commissioner of Environmental Protection shall conduct a review of
120 the mercury emission limits applicable to all affected units in the state.
121 On or after July 1, 2012, the Commissioner of Environmental
122 Protection may adopt regulations, in accordance with the provisions of
123 chapter 54 of the general statutes, imposing mercury emission limits
124 that are more stringent than such emissions requirements provided for
125 in subsection (a) or (b) of section 2 of this act.

This act shall take effect as follows:	
Section 1	<i>from passage</i>
Sec. 2	<i>from passage</i>
Sec. 3	<i>from passage</i>

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

OFA Fiscal Note

State Impact: None

Municipal Impact: None

Explanation

Any notifications to the Department of Environmental Protection (DEP) required by February 1, 2009, submission of stack tests, the establishment of an alternative emissions limit by April 1, 2010, (including any Title V permit changes necessary), the potential future adoption of regulations imposing mercury limits, or any other reporting required in the bill, is not anticipated to result in a fiscal impact.

Mercury has been a DEP priority and the agency is currently working and involved in these areas.

House "A" specifies that the implementation of the bill's provisions do not suspend procedures and requirements in state regulations and does not change the fiscal impact of the underlying bill.

OLR Bill Analysis

HB 6048 (As amended by House "A")*

AN ACT CONCERNING MERCURY EMISSIONS FROM COAL-FIRED ELECTRICITY GENERATORS**SUMMARY:**

This bill requires certain coal-burning electric plants to reduce the amount of mercury they emit, starting July 1, 2008. It sets standards the plants must meet, requires plants to test their generating units quarterly, and requires owners to submit quarterly reports to the environmental protection commissioner. The standards apply to the Bridgeport and AES Thames (Uncasville) generating plants. The bill authorizes the commissioner to set alternative emission limits if the plants cannot meet its requirements with properly installed and operating control technology. The commissioner's implementation of these provisions does not suspend any underlying procedure or requirement in state regulations.

The bill also requires the commissioner to review mercury emission limits applicable to all units in the state by July 1, 2012 and authorizes him to adopt regulations imposing more stringent mercury emission limits on or after that date.

*House Amendment "A" adds language specifying that implementation of the bill's provisions concerning emissions standards, testing and reporting does not suspend procedures and requirements in state regulations.

EFFECTIVE DATE: Upon passage

MEETING EMISSIONS STANDARDS

The bill requires plant owners or operators to meet a mercury emissions rate equal to or less than (1) 0.6 pounds of mercury per trillion British thermal Units (tBTU), or (2) a 90% reduction from the amount of mercury introduced into the system, whichever is more readily achievable as determined by the plant's owner or operator.

TESTING EMISSIONS

The plants must show compliance with the above emissions rate, or with an alternative emissions limit, by averaging smokestack tests conducted during the two most recent calendar quarters. The tests must be conducted each calendar quarter according to (1) the U.S. Environmental Protection Agency's (EPA) Method 29 for the determination of metal emissions from stationary sources (40 CFR 60, Appendix A); or (2) any alternative method approved by either EPA or the commissioner. The tests must be conducted while the unit is burning coal or coal blends representative of the type of fuel used during the quarter the test occurs.

ALTERNATIVE EMISSIONS LIMITS

The bill requires plant owners and operators to notify the commissioner by February 1, 2009 if properly installed and operated control technology fails to achieve the required emissions rate at any generating unit in their plant. The plant owner or operator must submit each quarterly stack test to the commissioner. The commissioner must evaluate them and establish an alternative emissions limit for each unit, based on the control technology's optimized performance. The commissioner must establish the alternative limits by April 1, 2010.

The commissioner must incorporate the alternative emissions limit into the affected unit's Title V permit, and review the limit whenever the permittee seeks to renew the permit. At that time, he may impose more stringent alternative emissions limits based on any new data regarding the demonstrated control capabilities of the control technology.

If the plant owner or operator is unable to achieve the required emissions rate with properly installed and operated control technology and properly notifies the commissioner by February 1, 2009, he may demonstrate compliance with the bill from July 1, 2008 until the commissioner issues an alternative emissions limit. He can do so by operating the unit, and any associated air pollution control technology, in a manner consistent with good air pollution control practices to minimize mercury emissions, as determined by the commissioner. In making such a determination, the commissioner may review the emissions monitoring results and operating and maintenance procedures of the affected unit, and may inspect the unit.

CONTINUOUS EMISSION MONITORS

If the commissioner determines that continuous emission monitors for mercury in flue gases are commercially available and can perform according to National Institute of Technology Standards or other approved EPA-approved methodology, the owner or operator of an affected unit must install and operate such monitors instead of conducting quarterly stack tests. Plant owners or operators must use an average of the continuous emission monitor data during the most recent calendar quarter when submitting their quarterly reports to the commissioner.

BACKGROUND

Title V Permit

The Department of Environmental Protection (DEP) issues Title V operating permits to power plants and other major sources of air pollution subject to the federal Clean Air Act. Permittees must ensure compliance with pollution control requirements.

COMMITTEE ACTION

Environment Committee

Joint Favorable Report
Yea 27 Nay 0