



# House of Representatives

General Assembly

**File No. 433**

*January Session, 2003*

House Bill No. 6048

*House of Representatives, April 17, 2003*

The Committee on Environment reported through REP. WIDLITZ of the 98th Dist., Chairperson of the Committee on the part of the House, that the bill ought to pass.

## **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*) (a) 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 subsection (b) of this section, by operating  
69 and maintaining such affected unit, including any associated air  
70 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 Sec. 3. (NEW) (*Effective from passage*) On or before July 1, 2012, the  
115 Commissioner of Environmental Protection shall conduct a review of  
116 the mercury emission limits applicable to all affected units in the state.  
117 On or after July 1, 2012, the Commissioner of Environmental  
118 Protection may adopt regulations imposing mercury emission limits  
119 that are more stringent than such emissions requirements provided for  
120 in subsections (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>

**ENV**      *Joint Favorable*

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:

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**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.

**OLR Bill Analysis**

HB 6048

**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.

It authorizes the commissioner to set alternative emission limits if the plants cannot meet the bill's requirements with properly installed and operating control technology. It requires the commissioner to review the emissions standards by July 1, 2012, and authorizes him to set more stringent limits on or after that date.

The commissioner must review mercury emission limits applicable to all units in the state by July 1, 2012 and may adopt more stringent mercury emission limits on or after that date.

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 plants 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), as amended from time to time; 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. He must evaluate them and establish an alternative emissions limit for each unit, based upon the control technology's optimized performance. The commissioner must establish such 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 affect 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