

FEB 17 2004  
ENVIRONMENTAL PROTECTION

HOUSE FILE 2273  
BY SHOULTZ

Passed House, Date \_\_\_\_\_ Passed Senate, Date \_\_\_\_\_  
Vote: Ayes \_\_\_\_\_ Nays \_\_\_\_\_ Vote: Ayes \_\_\_\_\_ Nays \_\_\_\_\_  
Approved \_\_\_\_\_

**A BILL FOR**

1 An Act relating to mercury emissions for certain coal combustion  
2 electrical generators.

3 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

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**HF 2273**

1 Section 1. Section 455B.131, Code 2003, is amended by  
2 adding the following new subsections:

3 NEW SUBSECTION. 0A. "Affected unit" means any emissions  
4 unit that generates electricity in the state and combusts coal  
5 in an amount greater than ten percent of its total heat input  
6 on a rolling twelve-month basis.

7 NEW SUBSECTION. 3A. "Alternative emissions limit" means a  
8 mercury emissions limit established by the commission for an  
9 affected unit.

10 NEW SUBSECTION. 4A. "Calendar quarter" means the calendar  
11 periods each year beginning January 1 and ending March 31,  
12 beginning April 1 and ending June 30, beginning July 1 and  
13 ending September 30, and beginning October 1 and ending  
14 December 31.

15 NEW SUBSECTION. 6A. "Fluidized bed combustion unit" means  
16 a combustion unit in which fuel is introduced into a layer of  
17 solid particles kept in turbulent motion by air that is forced  
18 into the layer from below, resulting in a thorough mixing and  
19 intimate contact of the fuel and other reactants.

20 NEW SUBSECTION. 6B. "Inlet conditions" means the  
21 concentration of mercury in the flue gas exiting the  
22 combustion source prior to application of any air pollution  
23 control device or, in the case of a fluidized bed combustion  
24 unit, the concentration of mercury input to the combustion  
25 source based on representative fuel sampling and analysis, as  
26 determined by the commission.

27 NEW SUBSECTION. 7A. "Mercury" means mercury and mercury  
28 compounds in either a gaseous or particulate form.

29 Sec. 2. Section 455B.133, Code 2003, is amended by adding  
30 the following new subsection:

31 NEW SUBSECTION. 11. On or before July 1, 2012, the  
32 commission shall conduct a review of the mercury emissions  
33 limits applicable to all affected units in the state. On or  
34 after July 1, 2012, the commission may adopt rules imposing  
35 mercury emissions limits that are more stringent than the

1 emissions requirements provided in section 455B.133A.

2     Sec. 3. NEW SECTION. 455B.133A MERCURY EMISSIONS FROM  
3 ELECTRICITY GENERATION UNITS.

4     1. a. On and after July 1, 2008, the owner or operator of  
5 an affected unit shall do one of the following as determined  
6 by the owner or operator of the affected unit:

7       (1) Meet an emissions rate of equal to or less than six-  
8 tenths pounds of mercury per one trillion British thermal  
9 units of heat input.

10      (2) Meet a mercury emissions rate equal to a ninety  
11 percent reduction of mercury from the measure inlet conditions  
12 for the affected unit.

13     b. Compliance with the requirements of this subsection  
14 shall be demonstrated in accordance with the provisions of  
15 subsection 3.

16     2. a. If the owner or operator of an affected unit  
17 properly installs and operates control technology designed to  
18 achieve the mercury emissions rate requirement of subsection  
19 1, and such technology fails to achieve the emissions rate,  
20 the owner or operator shall notify the department of such  
21 failure not later than February 2, 2009. The owner or  
22 operator shall submit each quarterly stack test from the  
23 affected unit to the department for evaluation and  
24 establishment of an alternative emissions limit for the  
25 affected unit based upon the optimized performance of the  
26 properly installed and operated control technology. The  
27 department shall establish an alternative emissions limit for  
28 any such affected unit not later than April 1, 2010.

29     b. Upon the establishment of an alternative emissions  
30 limit for an affected unit pursuant to paragraph "a", the  
31 department shall incorporate the alternative emissions limit  
32 into the air permit required under Title V of the federal  
33 Clean Air Act for the affected unit. Thereafter, upon any  
34 application for renewal of such permit, the department shall  
35 conduct a review of the affected unit's alternative emissions

1 limit and may impose a more stringent alternative emissions  
2 limit based upon any new data regarding the demonstrated  
3 control capabilities of the type of control technology  
4 installed and operated at such affected unit.

5 c. If the owner or operator of an affected unit properly  
6 installs and operates control technology designed to achieve  
7 the mercury emissions rate requirement established in  
8 subsection 1, but the technology fails to achieve the  
9 emissions requirement, and the owner or operator notifies the  
10 department of such failure not later than February 1, 2009,  
11 the owner or operator of the affected unit shall demonstrate  
12 compliance with the requirements of subsection 1 for the  
13 period beginning July 1, 2008, and ending on the date of the  
14 issuance of an alternative emissions limit by operating and  
15 maintaining the affected unit, including any associated air  
16 pollution control equipment, in a manner consistent with good  
17 air pollution control practices for minimization of mercury  
18 emissions, as determined by the department. In determining  
19 whether the owner or operator of the affected unit is  
20 operating and maintaining the affected unit in a manner  
21 consistent with good air pollution control practices for the  
22 minimization of mercury emissions, the department may review  
23 the emissions monitoring results and operating and maintenance  
24 procedures of the affected unit and may inspect the affected  
25 unit.

26 3. a. Any stack test used to demonstrate compliance with  
27 the mercury emissions rate requirements of subsection 1 or  
28 used in the establishment or compliance with an alternative  
29 emissions limit shall be based on the average of the stack  
30 tests conducted during the two most recent calendar quarters  
31 for an affected unit and shall be conducted on a calendar  
32 quarter basis in accordance with method 29 of the United  
33 States environmental protection agency for the determination  
34 of metal emissions from stationary sources, as set forth in 40  
35 C.F.R. § 60, appendix A, as amended, or any other alternative

1 method approved by the United States environmental protection  
2 agency or the department. The stack tests shall be conducted  
3 while combusting coal or coal blends that are representative  
4 of the coal or coal blends combusted at the affected unit  
5 during the calendar quarter represented by the stack test.

6 b. If the department determines that continuous emission  
7 monitors for mercury in flue gases are commercially available  
8 and can perform in accordance with national institute of  
9 technology standards, or other methodology approved by the  
10 United States environmental protection agency, the owner or  
11 operator of an affected unit shall properly install and  
12 operate the continuous emission monitors and shall not be  
13 required to conduct stack testing on a calendar quarter basis.  
14 When reporting compliance with the mercury emissions rate  
15 requirement of subsection 1 or 2, as applicable, the owner or  
16 operator of an affected unit shall use an average of the  
17 continuous emission monitor data recorded at the affected unit  
18 during the most recent calendar quarter.

19 4. The owner or operator of an affected unit shall, for  
20 each calendar quarter, report to the department the results of  
21 any stack test or average of the continuous emission monitor  
22 data, as applicable, used to demonstrate compliance with the  
23 provisions of this section. The reports shall be submitted on  
24 such forms as may be prescribed by the department.

25 5. The provisions of this section, when implemented by the  
26 department, shall not suspend any underlying procedures or  
27 requirements as set forth in this chapter.

28 EXPLANATION

29 This bill relates to mercury emissions for certain coal  
30 combustion electrical generators.

31 The bill provides that, on or before July 1, 2012, the  
32 environmental protection commission shall conduct a review of  
33 the mercury emissions limits applicable to all affected units  
34 in the state. The bill provides that, on or after July 1,  
35 2012, the environmental protection commission may adopt rules

1 imposing mercury emissions limits that are more stringent than  
2 the emissions requirements provided for in this bill for the  
3 time prior to July 1, 2012. The bill provides that an  
4 "affected unit" means any emissions unit that generates  
5 electricity in the state and combusts coal in an amount  
6 greater than 10 percent of its total heat input on a rolling  
7 12-month basis.

8 The bill provides that, on and after July 1, 2008, the  
9 owner or operator of an affected unit shall do one or more of  
10 the following as determined by the owner or operator of the  
11 affected unit:

12 1. Meet an emissions rate of equal to or less than six-  
13 tenths pounds of mercury per one trillion British thermal  
14 units of heat input.

15 2. Meet a mercury emissions rate equal to a 90 percent  
16 reduction of mercury from the measure inlet conditions for the  
17 affected unit.

18 The bill provides that, if the owner or operator of an  
19 affected unit properly installs and operates control  
20 technology designed to achieve these mercury emissions rate  
21 requirements of the bill and such technology fails to achieve  
22 the emissions rate, the owner or operator shall notify the  
23 department of natural resources of such failure not later than  
24 February 2, 2009. The bill provides that the owner or  
25 operator shall submit each quarterly stack test from the  
26 affected unit to the department for evaluation and  
27 establishment of an alternative emissions limit for the  
28 affected unit based upon the optimized performance of the  
29 properly installed and operated control technology. The bill  
30 provides that the department shall establish an alternative  
31 emissions limit for any such affected unit not later than  
32 April 1, 2010.

33 The bill provides that, upon the establishment of an  
34 alternative emissions limit, the department shall incorporate  
35 the alternative emissions limit into the air permit required

1 under Title V of the federal Clean Air Act for the affected  
2 unit. The bill provides that, upon any application for  
3 renewal of such permit, the department shall conduct a review  
4 of the affected unit's alternative emissions limit and may  
5 impose a more stringent alternative emissions limit.

6 The bill provides that, if the owner or operator of an  
7 affected unit properly installs and operates control  
8 technology designed to achieve the mercury emissions rate  
9 requirements of the bill, but the technology fails to achieve  
10 the emissions requirement, and the owner or operator notifies  
11 the department of such failure not later than February 1,  
12 2009, the owner or operator of the affected unit shall  
13 demonstrate compliance with the mercury emissions rate  
14 requirements for the period beginning July 1, 2008, and ending  
15 on the date of the issuance of an alternative emissions limit  
16 by operating and maintaining the affected unit, including any  
17 associated air pollution control equipment, in a manner  
18 consistent with good air pollution control practices for  
19 minimization of mercury emissions, as determined by the  
20 department.

21 The bill provides that any stack test used to demonstrate  
22 compliance with the mercury emissions rate requirements of  
23 this bill or used in the establishment or compliance with an  
24 alternative emissions limit shall be based on the average of  
25 the stack tests conducted during the two most recent calendar  
26 quarters for an affected unit and shall be conducted on a  
27 calendar quarter basis in accordance with certain federal  
28 procedures or any other alternative method approved by the  
29 United States environmental protection agency or the  
30 department.

31 The bill provides that, if the department determines that  
32 continuous emission monitors for mercury in flue gases are  
33 commercially available and can perform in accordance with  
34 national institute of technology standards, or other  
35 methodology approved by the United States environmental

1 protection agency, the owner or operator of any affected unit  
2 shall properly install and operate the continuous emission  
3 monitors and shall not be required to conduct stack testing on  
4 a calendar quarter basis.

5 The bill provides that the owner or operator of any  
6 affected unit shall, for each calendar quarter, report to the  
7 department the results of any stack test or average of the  
8 continuous emission monitor data, as applicable, used to  
9 demonstrate compliance with the provisions of the bill.

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