

CHAPTER 105

HB 1673-FN □ FINAL VERSION

22Mar2006 □ 0936h

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06-2816

06/03

HOUSE BILL ***1673-FN***

AN ACT relative to the reduction of mercury emissions.

SPONSORS: Rep. Ross, Hills 3; Rep. Slocum, Hills 6; Rep. Kaen, Straf 7; Rep. Phinizy, Sull 5; Rep. Maxfield, Merr 6; Sen. Green, Dist 6; Sen. Johnson, Dist 2; Sen. Burling, Dist 5; Sen. Odell, Dist 8; Sen. Hassan, Dist 23

COMMITTEE: Science, Technology and Energy

ANALYSIS

This bill provides for an 80 percent reduction of mercury emissions from coal-burning power plants by requiring the installation of scrubber technology no later than July 1, 2013 and provides economic incentives for earlier installation and greater reductions in emissions.

Explanation: Matter added to current law appears in ***bold italics***.

Matter removed from current law appears [~~in brackets and struck through.~~]

Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

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STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Six

AN ACT relative to the reduction of mercury emissions.

Be it Enacted by the Senate and House of Representatives in General Court convened:

105:1 New Subdivision; Mercury Emissions. Amend RSA 125-O by inserting after section 10 the following new subdivision:

Mercury Emissions

125-O:11 Statement of Purpose and Findings. The general court finds that:

I. It is in the public interest to achieve significant reductions in mercury emissions at the coal-burning electric power plants in the state as soon as possible. The requirements of this subdivision will prevent, at a minimum, 80 percent of the aggregated mercury content of the coal burned at these plants from being emitted into the air by no later than the year 2013. To accomplish this objective, the best known commercially available technology shall be installed at Merrimack Station no later than July 1, 2013.

II. The department of environmental services has determined that the best known commercially available technology is a wet flue gas desulphurization system, hereafter "scrubber technology," as it best balances the procurement, installation, operation, and plant efficiency costs with the projected reductions in mercury and other pollutants from the flue gas streams of Merrimack Units 1 and 2. Scrubber technology achieves significant emissions reduction benefits, including but not limited to, cost effective reductions in sulfur dioxide, sulfur trioxide, small particulate matter, and improved visibility (regional haze).

III. After scrubber technology is installed at Merrimack Station, and after a period of operation has reliably established a consistent level of mercury removal at or greater than 80 percent, the department will ensure through monitoring that that level of mercury removal is sustained, consistent with the proven operational capability of the system at Merrimack Station.

IV. To ensure that an ongoing and steadfast effort is made to implement practicable technological or operational solutions to achieve significant mercury reductions prior to the construction and operation of the scrubber technology at Merrimack Station, the owner of the affected coal-burning sources shall work to bring about such early reductions and shall be provided incentives to do so.

V. The installation of scrubber technology will not only reduce mercury emissions significantly but will do so without jeopardizing electric reliability and with reasonable costs to consumers.

VI. The installation of such technology is in the public interest of the citizens of New Hampshire and the customers of the affected sources.

VII. Notwithstanding the provisions of RSA 125-O:1, VI, the purchase of mercury credits or allowances to comply with the mercury reduction requirements of this subdivision or the sale of mercury credits or allowances earned under this subdivision is not in the public interest.

VIII. The mercury reduction requirements set forth in this subdivision represent a careful, thoughtful balancing of cost, benefits, and technological feasibility and therefore the requirements shall be viewed as an integrated strategy of non-severable components.

125-O:12 Definitions. In this subdivision:

I. "Affected sources" means existing coal-burning power plant units in this state, specifically Merrimack Units 1 and 2 in Bow and Schiller Units 4, 5, and 6 in Portsmouth.

II. □Baseline mercury emissions□ means the total annual mercury emissions from all of the affected sources, calculated in accordance with RSA 125-O:14, II.

III. □Baseline mercury input□ means the total annual mercury input found in the coal used by all of the affected sources, calculated in accordance with RSA 125-O:14, I.

IV. □Owner□ means the owner or owners of the affected sources.

V. □Scrubber technology□ means a wet flue gas desulphurization system.

125-O:13 Compliance.

I. The owner shall install and have operational scrubber technology to control mercury emissions at Merrimack Units 1 and 2 no later than July 1, 2013. The achievement of this requirement is contingent upon obtaining all necessary permits and approvals from federal, state, and local regulatory agencies and bodies; however, all such regulatory agencies and bodies are encouraged to give due consideration to the general court's finding that the installation and operation of scrubber technology at Merrimack Station is in the public interest. The owner shall make appropriate initial filings with the department and the public utilities commission, if applicable, within one year of the effective date of this section, and with any other applicable regulatory agency or body in a timely manner.

II. Total mercury emissions from the affected sources shall be at least 80 percent less on an annual basis than the baseline mercury input, as defined in RSA 125-O:12, III, beginning on July 1, 2013.

III. Prior to July 1, 2013, the owner shall test and implement, as practicable, mercury reduction control technologies or methods to achieve early reductions in mercury emissions below the baseline mercury emissions. The owner shall report the results of any testing to the department and shall submit a plan for department approval before commencing implementation.

IV. If the net power output (as measured in megawatts) from Merrimack Station is reduced, due to the power consumption requirements or operational inefficiencies of the installed scrubber technology, the owner may invest in capital improvements at Merrimack Station that increase its net capability, within the requirements and regulations of programs enforceable by the state or federal government, or both.

V. Mercury reductions achieved through the operation of the scrubber technology greater than 80 percent shall be sustained insofar as the proven operational capability of the system, as installed, allows. The department, in consultation with the owner, shall determine the maximum sustainable rate of mercury emissions reductions and incorporate such rate as a condition of operational permits issued by the department for Merrimack Units 1 and 2. This requirement in no way affects the ability of the owner to earn over-compliance credits consistent with RSA 125-O:16, II.

VI. The purchase of mercury emissions allowances or credits from any established emissions allowance or credit program shall not be allowed for compliance with the mercury reduction requirements of this chapter.

VII. If the mercury reduction requirement of paragraph II is not achieved in any year after the July 1, 2013 implementation date, and after full operation of the scrubber technology, then the owner may utilize early emissions reduction credits or over-compliance credits, or both, to make up any shortfall, and thereby be in compliance.

VIII. If the mercury reduction requirement of paragraph II is not achieved by the owner in any year after the July 1, 2013 implementation date despite the owner's installation and full operation of scrubber technology, consistent with good operational practice, and the owner's exhaustion of any available early emissions reduction or over-compliance credits, then the owner shall be deemed in violation of this section unless it submits a plan to the department, within 30 days of such noncompliance, and subsequently obtains approval of that plan for achieving compliance within one year from the date of such noncompliance. The department may impose conditions for approval of such plan.

IX. The owner shall report by June 30, 2007 and annually thereafter, to the legislative oversight committee on electric utility restructuring, established under RSA 374-F:5, and the chairpersons of the house science, technology and energy committee and the senate energy and economic development committee, on the progress and status of complying with the requirements of paragraphs I and III, relative to achieving early reductions in mercury emissions and also installing and operating the scrubber technology including any updated cost information. The last report required shall be after the department has made a determination, under paragraph V, on the maximum sustainable rate of mercury emissions reductions by the scrubber technology.

125-O:14 Measurement of Baseline Mercury Input and Emissions.

I. Baseline mercury input shall be determined as follows:

(a) No later than the first day of the second month following the effective date of this section, and continuing for 12 months thereafter, a representative monthly sample of the coal used traditionally (not to include trial or test coal blends) by each affected source shall be collected from each of the units identified in subparagraph (b) and analyzed to determine the average mercury content of the fuel for each unit expressed in pounds of mercury input per ton of coal combusted at each affected source. The mercury content of the coal derived from these analyses for each affected source shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury input per year into each affected source. The sum of these annual input pound averages from each affected source shall equal the baseline mercury input.

(b) Determination of the mercury content of the coal shall follow appropriate ASTM testing procedures (ASTM D3684-01). For purposes of baseline mercury input determination, coal sampling shall occur at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller units. At least 4 of the samples taken from each of these units shall correspond with the stack testing done at each of these units under paragraph II.

II. Baseline mercury emissions shall be determined as follows:

(a) A minimum of 4 stack tests shall be conducted at each of the units specified in subparagraph (b) using appropriate testing protocols, to determine a statistically valid average mercury emissions rate for each unit expressed in pounds of mercury emitted per ton of coal combusted at each affected source. The rate for each affected source shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury emitted per year from each affected source. The sum of these annual emitted pound averages from each affected source shall equal the baseline mercury emissions.

(b) For purposes of the baseline mercury emissions determination, stack tests shall be conducted at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent

all Schiller units. If mercury emissions improvements are made or are being made during the testing period, the stack tests shall be conducted without the improvements running at the time of the tests.

III. The owner shall provide its plans to accomplish the testing requirements under paragraphs I and II to the department for its approval. The owner shall provide written reports to the department, for verification and approval, that include the test results and calculations used to determine:

(a) The baseline mercury input. The owner shall submit the report no later than 15 months following the effective date of this section.

(b) The baseline mercury emissions. The owner shall submit the report no later than 18 months following the effective date of this section.

125-O:15 Monitoring of Mercury Emissions. Prior to the availability and operation of continuous emissions monitoring (CEM) systems, and subsequent to the baseline emissions testing under RSA 125-O:14, II, stack tests or another methodology approved by the department shall be conducted twice per year to determine mercury emissions levels from the affected sources. Any stack tests performed shall employ a federally recognized and approved methodology, proposed by the owner and employing a test protocol approved by the department. When a federal performance specification takes effect, and a mercury CEM system capable of meeting the federal specifications becomes available, a mercury CEM system, approved by the department, shall be installed at Merrimack Units 1 and 2 and at other affected sources as deemed appropriate by the department.

125-O:16 Economic Performance Incentives.

I.(a) The department shall issue to the owner early emissions reduction credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced below the baseline mercury emissions, on an annual basis, in the period prior to July 1, 2013. Ratios of early reductions credits to pounds of mercury reduced shall be as follows: 1.5 credits per pound reduced prior to July 1, 2008; 1.25 credits per pound for reductions between July 1, 2008 and December 31, 2010; and 1.1 credits per pound for reductions between January 1, 2011 and July 1, 2013.

(b) Reductions shall be calculated based upon the results of stack tests conducted, measurement by continuous emission monitoring, or other methodology approved by the department to confirm emissions during the time of operation of mercury reduction technology. Early emissions reduction credits may be banked by the owner or utilized after July 1, 2013 to meet the reduction requirement of RSA 125-O:13, II as allowed under RSA 125-O:13, VII. Early emissions reduction credits are not sellable or transferable to non-affected sources; however, upon the July 1, 2013 compliance date, the owner may request a one-for-one conversion of early emissions reduction credits to over-compliance credits.

(c) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted with an implementation date prior to July 1, 2013, then early reduction credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the baseline mercury emissions level, whichever is lower, at the same ratios listed in subparagraph (a).

(d) Early emissions reduction credits shall not be used for compliance with the requirement of RSA 125-O:13, II prior to the installation of scrubber technology, and shall not be used as a means to delay the installation of the scrubber technology.

II.(a) The department shall issue to the owner over-compliance credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced in excess of the emissions reduction requirement of RSA 125-O:13, II, on an annual basis, following the compliance date of July 1, 2013. The ratios of over-compliance credits to excess pounds of mercury reduced shall be as follows: 0.5 credits per pound reduced for reductions between 80 and 85 percent; 1 credit per pound reduced for reductions between 85 and 90 percent reduction; and 1.5 credits per pound reduced for reductions of 90 percent or greater. Over-compliance credits may be banked for future use. The requirements of RSA 125-O:13, V shall not alter the emissions levels at which over-compliance credits are earned.

(b) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted, then over-compliance credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the requirement of RSA 125-O:13, II, whichever is lower, at the same ratios listed in subparagraph (a).

(c) At the request of the owner of an affected source, over-compliance credits may be surrendered by the owner to the department and SO₂ allowances shall be transferred to the owner at a rate of 55 tons SO₂ allowances for every one over-compliance credit. Transfer shall be limited to a maximum of 20,000 total tons SO₂ allowances transferred in a given year, defined as the sum of all SO₂ allowances received by the affected sources under RSA 125-O:4, IV(a)(2) and IV(a)(3), and under this subparagraph. SO₂ allowances shall be credited to the affected sources' accounts in the following year in accordance with RSA 125-O:4, IV(a)(4).

125-O:17 Variances. The owner may request a variance from the mercury emissions reduction requirements of this subdivision by submitting a written request to the department. The request shall provide sufficient information concerning the conditions or special circumstances on which the variance request is based to demonstrate to the satisfaction of the department that variance from the applicable requirements is necessary.

I. Where an alternative schedule is sought, the owner shall submit a proposed schedule which demonstrates reasonable further progress and contains a date for final compliance as soon as practicable. If the department deems such a delay is reasonable under the cited circumstances, it shall grant the requested variance.

II. Where an alternative reduction requirement is sought, the owner shall submit information to substantiate an energy supply crisis, a major fuel disruption, an unanticipated or unavoidable disruption in the operations of the affected sources, or technological or economic infeasibility. The department, after consultation with the public utilities commission, shall grant or deny the requested variance. If requested by the owner, the department shall provide the owner with an opportunity for a hearing on the request.

125-O:18 Cost Recovery. If the owner is a regulated utility, the owner shall be allowed to recover all prudent costs of complying with the requirements of this subdivision in a manner approved by the public utilities commission. During ownership and operation by the regulated utility, such costs shall be recovered via the utility's default service charge. In the event of divestiture of affected sources by the regulated utility, such divestiture and recovery of costs shall be governed by the provisions of RSA 369-B:3-a.

105:2 Repeal. The following are repealed:

I. RSA 125-O:3, III(c), relative to an annual cap applicable to total mercury emissions.

II. RSA 125-O:4, IV(d), relative to the use of future mercury allowances to meet a portion of the emission cap for mercury.

105:3 Compliance Dates; Mercury Emissions Excluded. Amend RSA 125-O:9 to read as follows:

125-O:9 Compliance Dates. The owner or operator of each affected source shall comply with the provisions of this chapter, ***excluding the subdivision on mercury emissions, RSA 125-O:11 through 125-O:18***, by December 31, 2006.

105:4 Effective Date. This act shall take effect 30 days after passage.

Approved: May 9, 2006

Effective: June 8, 2006