

Bill as Introduced

HB 1688 - AS INTRODUCED

2010 SESSION

10-2933

10/04

HOUSE BILL **1688**

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

SPONSORS: Rep. Hawkins, Hills 18; Rep. S. Harvey, Hills 21; Rep. McGuire, Merr 8; Rep. F. Holden, Hills 4; Sen. Merrill, Dist 21

COMMITTEE: Executive Departments and Administration

ANALYSIS

This bill requires the state building code review board to adopt certain code requirements concerning biomass burning boilers which are inspected and subject to enforcement by the department of labor.

This bill is a request of the committee established by SB 98 of the 2009 legislative session to study state regulations governing installation of boilers, pressure vessels, and related high performance HVAC equipment.

Explanation: Matter added to current law appears in ***bold italics***.
 Matter removed from current law appears [~~in brackets and struckthrough.~~]
 Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Ten

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

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

1 1 New Section; State Building Code; Biomass Burning Boilers. Amend RSA 155-A by inserting
2 after section 3 the following new section:

3 155-A:3-a Code Requirements; Biomass Burning Boilers.

4 I. Notwithstanding any provisions of the state building code or state fire code, the board
5 shall adopt a code and amendments thereto which shall regulate the installation and operation of
6 biomass burning boilers. The code adopted shall meet or include the 1999 EN 303-5 standard
7 established by the European Committee for Standardization, and shall include requirements for the
8 safe installation, operation, and repair of such boilers, and for data plates and warning labels
9 written in English, limits on temperature and pressure with associated relief valves, and the filing of
10 construction specifications written in English.

11 II. The inspection procedures and enforcement requirements for the commissioner of labor in
12 RSA 157-A shall apply to the code and amendments adopted by the board under this section.

13 III. The code and amendments thereto adopted under paragraph I shall be ratified by the
14 adoption of appropriate legislation within 2 years of their adoption. If such code and amendments
15 are not ratified, then the code and amendments shall expire at the end of the 2-year period.

16 2 State Building Code; Administration of Programs; Commissioner of Labor. Amend RSA 155-
17 A:2, XI to read as follows:

18 XI. No state agency, authority, board, or commission shall modify the state building code,
19 unless approved by the state building code review board pursuant to RSA 155-A. Nothing in this
20 chapter shall affect the statutory authority of the public utilities commission, *the commissioner of*
21 *labor*, the state board for the licensing and regulation of plumbers, or the state electricians' board,
22 to administer their respective programs, provided that any changes to codes adopted under the
23 rulemaking authority of these agencies shall not be implemented until approved by the state
24 building code review board.

25 3 Boiler and Pressure Vessels; Commissioner of Labor; Rules. Amend RSA 157-A:3, I to read as
26 follows:

27 I. *To carry out the purposes of this chapter*, the commissioner shall formulate
28 definitions and adopt rules under RSA 541-A consistent with:

29 (a) The boiler and pressure vessel code of the American Society of Mechanical Engineers
30 and the National Board Inspection Code as published by the National Board of Boiler and Pressure

1 Vessel Inspectors, with the amendments and interpretations thereto~~[- to carry out the purposes of~~
2 ~~this chapter.]; and~~

3 **(b) The code and amendments thereto adopted by the state building code review**
4 **board pursuant to RSA 155-A:3-a.**

5 **I-a.** In addition, the commissioner may adopt rules under RSA 541-A to facilitate
6 administration and enforcement of this chapter **and RSA 155-A:3-a.**

7 4 Boiler and Pressure Vessel Installation. Amend RSA 157-A:4 to read as follows:

8 157-A:4 New Boiler and Pressure Vessel Installation. No boiler or pressure vessel which does
9 not conform to the **applicable codes and amendments thereto and the** rules adopted by the
10 commissioner governing new construction and installation shall be installed and operated in this
11 state unless the boiler or pressure vessel is of special design or construction, and is not inconsistent
12 with the spirit and safety objectives of such **codes and** rules, in which case a special installation and
13 operating permit may at the commissioner's discretion be granted by the commissioner.

14 5 Maximum Allowable Pressure. Amend RSA 157-A:5, I and II to read as follows:

15 I. The maximum allowable pressure of a boiler [~~carrying the ASME Code symbol~~] or of a
16 pressure vessel [~~carrying the ASME or API-ASME Code symbol~~] shall be determined by the
17 applicable sections of the code, **amendments thereto, or rules** under which it was constructed and
18 stamped.

19 II. The maximum allowable pressure of a boiler or pressure vessel which does not carry [~~the~~
20 ~~ASME or the API-ASME Code~~] **a code** symbol shall be computed in accordance with the inspection
21 code of the National Board of Boiler and Pressure Vessel Inspectors.

22 6 Effective Date. This act shall take effect 60 days after its passage.

HB 1688 - AS AMENDED BY THE HOUSE

03Mar2010... 0561h

2010 SESSION

10-2933

10/04

HOUSE BILL **1688**

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

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COMMITTEE: Executive Departments and Administration

ANALYSIS

This bill requires the state building code review board to adopt certain code requirements concerning biomass burning boilers which are inspected and subject to enforcement by the department of labor.

This bill is a request of the committee established by SB 98 of the 2009 legislative session to study state regulations governing installation of boilers, pressure vessels, and related high performance HVAC equipment.

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7 the European Committee for Standardization, and shall include requirements for the safe
8 installation, operation, and repair of such boilers, and for data plates and warning labels written in
9 English, limits on temperature and pressure with associated relief valves, and the filing of
10 construction and emissions specifications written in English.

11 II. The inspection procedures and enforcement requirements for the commissioner of labor in
12 RSA 157-A shall apply to boilers installed according to the code and amendments adopted by the
13 board under this section.

14 III. The code and amendments thereto adopted under paragraph I shall be ratified by the
15 adoption of appropriate legislation within 2 years of their adoption. If such code and amendments
16 are not ratified, then the code and amendments shall expire at the end of the 2-year period.

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21 chapter shall affect the statutory authority of the public utilities commission, *the commissioner of*
22 *labor*, the state board for the licensing and regulation of plumbers, or the state electricians' board,
23 to administer their respective programs, provided that any changes to codes adopted under the
24 rulemaking authority of these agencies shall not be implemented until approved by the state
25 building code review board.

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29 definitions and adopt rules under RSA 541-A consistent with:

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2 and the National Board Inspection Code as published by the National Board of Boiler and Pressure
3 Vessel Inspectors, with the amendments and interpretations thereto~~[- to carry out the purposes of~~
4 ~~this chapter.]; and~~

5 (b) *The code and amendments thereto adopted by the state building code review*
6 *board pursuant to RSA 155-A:3-a.*

7 I-a. In addition, the commissioner may adopt rules under RSA 541-A to facilitate
8 administration and enforcement of this chapter *and RSA 155-A:3-a.*

9 4 Boiler and Pressure Vessel Installation. Amend RSA 157-A:4 to read as follows:

10 157-A:4 New Boiler and Pressure Vessel Installation. No boiler or pressure vessel which does
11 not conform to the *applicable codes and amendments thereto and the* rules adopted by the
12 commissioner governing new construction and installation shall be installed and operated in this
13 state unless the boiler or pressure vessel is of special design or construction, and is not inconsistent
14 with the spirit and safety objectives of such *codes and* rules, in which case a special installation and
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16 5 Maximum Allowable Pressure. Amend RSA 157-A:5, I and II to read as follows:

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18 pressure vessel [~~carrying the ASME or API-ASME Code symbol~~] shall be determined by the
19 applicable sections of the code, *amendments thereto, or rules* under which it was constructed and
20 stamped.

21 II. The maximum allowable pressure of a boiler or pressure vessel which does not carry the
22 ASME or [the] API-ASME Code *or EN 303-5* symbol shall be computed in accordance with the
23 inspection code of the National Board of Boiler and Pressure Vessel Inspectors.

24 6 Effective Date. This act shall take effect 60 days after its passage.

LBAO
10-2933
Amended 03/22/10

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HB 1688 FISCAL NOTE

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

FISCAL IMPACT:

The Department of Labor states this bill, as amended by the House (Amendment #2010-0561h), may increase state general fund expenditures by an indeterminable amount in FY 2011 and each year thereafter. There is no fiscal impact on county and local expenditures or state, county and local revenue.

METHODOLOGY:

The Department of Labor states this bill requires the state building code review board adopt certain code requirements concerning biomass burning boilers inspected by and subject to enforcement by the Department. The Department states this bill establishes a new program where there is no process in place for the inspection of boilers and pressure vessels, issuing of operating certificates or boiler inspection licenses for pellet boilers built to the foreign code. The Department states there may be increased state expenditures associated with the retraining of inspectors in the new code.

CHAPTER 326
HB 1688 - FINAL VERSION

03Mar2010... 0561h
04/21/10 1385s

2010 SESSION

10-2933
10/04

HOUSE BILL **1688**

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

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COMMITTEE: Executive Departments and Administration

ANALYSIS

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This bill is a request of the committee established by SB 98 of the 2009 legislative session to study state regulations governing installation of boilers, pressure vessels, and related high performance HVAC equipment.

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CHAPTER 326
HB 1688 – FINAL VERSION

03Mar2010... 0561h
04/21/10 1385s

10-2933
10/04

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Ten

AN ACT relative to the regulation of the installation and operation of boiler and pressure vessels.

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

1 326:1 New Section; State Building Code; Biomass Burning Boilers. Amend RSA 155-A by
2 inserting after section 3 the following new section:

3 155-A:3-a Code Requirements; Biomass Burning Boilers.

4 I. Notwithstanding any provisions of the state building code or state fire code, the board
5 shall adopt a code and amendments thereto which shall regulate the installation and operation of
6 biomass burning boilers. The code adopted shall include the 1999 EN 303-5 standard established by
7 the European Committee for Standardization, and shall include requirements for the safe
8 installation, operation, and repair of such boilers, and for data plates and warning labels written in
9 English, limits on temperature and pressure with associated relief valves, and the filing of
10 construction and emissions specifications written in English.

11 II. The inspection procedures and enforcement requirements for the commissioner of labor in
12 RSA 157-A shall apply to boilers installed according to the code and amendments adopted by the
13 board under this section.

14 III. The code and amendments thereto adopted under paragraph I shall be ratified by
15 appropriate legislation within 2 years of their adoption. If such code and amendments are not
16 ratified, then the code and amendments shall expire at the end of the 2-year period.

17 326:2 State Building Code; Administration of Programs; Commissioner of Labor. Amend RSA
18 155-A:2, XI to read as follows:

19 XI. No state agency, authority, board, or commission shall modify the state building code,
20 unless approved by the state building code review board pursuant to RSA 155-A. Nothing in this
21 chapter shall affect the statutory authority of the public utilities commission, *the commissioner of*
22 *labor*, the state board for the licensing and regulation of plumbers, or the state electricians' board,
23 to administer their respective programs, provided that any changes to codes adopted under the
24 rulemaking authority of these agencies shall not be implemented until approved by the state
25 building code review board.

26 326:3 Boiler and Pressure Vessels; Commissioner of Labor; Rules. Amend RSA 157-A:3, I to
27 read as follows:

CHAPTER 326
HB 1688 - FINAL VERSION
- Page 2 -

1 I. *To carry out the purposes of this chapter*, the commissioner shall formulate
2 definitions and adopt rules under RSA 541-A consistent with:

3 (a) The boiler and pressure vessel code of the American Society of Mechanical Engineers
4 and the National Board Inspection Code as published by the National Board of Boiler and Pressure
5 Vessel Inspectors, with the amendments and interpretations thereto~~[- to carry out the purposes of~~
6 ~~this chapter.]; and~~

7 (b) *The code and amendments thereto adopted by the state building code review*
8 *board pursuant to RSA 155-A:3-a.*

9 I-a. In addition, the commissioner may adopt rules under RSA 541-A to facilitate
10 administration and enforcement of this chapter *and RSA 155-A:3-a.*

11 326:4 Boiler and Pressure Vessel Installation. Amend RSA 157-A:4 to read as follows:

12 157-A:4 New Boiler and Pressure Vessel Installation. No boiler or pressure vessel which does
13 not conform to the *applicable codes and amendments thereto and the* rules adopted by the
14 commissioner governing new construction and installation shall be installed and operated in this
15 state unless the boiler or pressure vessel is of special design or construction, and is not inconsistent
16 with the spirit and safety objectives of such *codes and* rules, in which case a special installation and
17 operating permit may at the commissioner's discretion be granted by the commissioner.

18 326:5 Maximum Allowable Pressure. Amend RSA 157-A:5, I and II to read as follows:

19 I. The maximum allowable pressure of a boiler [~~carrying the ASME Code symbol~~] or of a
20 pressure vessel [~~carrying the ASME or API ASME Code symbol~~] shall be determined by the
21 applicable sections of the code, *amendments thereto, or rules* under which it was constructed and
22 stamped.

23 II. The maximum allowable pressure of a boiler or pressure vessel which does not carry the
24 ASME or [~~the~~] API-ASME Code *or EN 303-5* symbol shall be computed in accordance with the
25 inspection code of the National Board of Boiler and Pressure Vessel Inspectors.

26 326:6 Effective Date. This act shall take effect 60 days after its passage.

27 Approved: July 20, 2010

28 Effective Date: September 18, 2010

29

Amendments

Senate Executive Departments and Administration
April 14, 2010
2010-1385s
10/04

Amendment to HB 1688

1 Amend RSA 155-A:3-a, III as inserted by section 1 of the bill by replacing it with the following:

2

3 III. The code and amendments thereto adopted under paragraph I shall be ratified by
4 appropriate legislation within 2 years of their adoption. If such code and amendments are not
5 ratified, then the code and amendments shall expire at the end of the 2-year period.

Committee Minutes

**SENATE CALENDAR NOTICE
EXECUTIVE DEPARTMENTS AND ADMINISTRATION**

Senator Jacalyn Cilley Chairman ✓
 Senator Martha Fuller Clark V Chairman ✓
 Senator Betsi DeVries ✓
 Senator Michael Downing ✓
 Senator Sharon Carson ✓

For Use by Senate Clerk's Office ONLY	
<input type="checkbox"/>	Bill Status
<input type="checkbox"/>	Docket
<input type="checkbox"/>	Calendar
Proof: <input type="checkbox"/>	Calendar <input type="checkbox"/> Bill Status

Date: March 30, 2010

*Start 4:00 pm
end 5:01 pm*

HEARINGS

Tuesday

4/6/2010

EXECUTIVE DEPARTMENTS AND ADMINISTRATION	LOB 101	2:00 PM
(Name of Committee)	(Place)	(Time)

EXECUTIVE SESSION MAY FOLLOW

2:00 PM	HB1149-FN	(New Title) relative to incorporation by reference and filing of electronic documents in state agency rulemaking.
2:15 PM	HB1579-FN	relative to electioneering by public employees.
2:30 PM	HB1602-FN	relative to the secure psychiatric unit.
2:45 PM	HB1668-FN	requiring state creditable service for group II retirees to receive state employee medical benefits.
3:00 PM	HB1688-FN	relative to the regulation of the installation and operation of boiler and pressure vessels.

Sponsors:

HB1149-FN Rep. Betsy Patten	Rep. Maurice Pilotte
HB1579-FN Rep. Dennis Fields	
HB1602-FN Rep. Robert Cushing	
HB1668-FN Rep. Patricia McMahon	
HB1688-FN Rep. Ken Hawkins	Sen. Amanda Merrill
Rep. Frank Holden	Rep. Suzanne Harvey

Rep. Carol McGuire

Executive Departments & Administration Committee Hearing Report

TO: Members of the Senate

FROM: Patrick Murphy, *Legislative Aide*

RE: Hearing report on HB1688 relative to the regulation of the installation and operation of boiler and pressure vessels.

HEARING DATE: April 6, 2010

MEMBERS OF THE COMMITTEE PRESENT:

Senator Cilley (Dist 6), Senator Fuller Clark (Dist 24), Senator DeVries (Dist 18), Senator Downing (Dist 22), Senator Carson (Dist 14)

MEMBERS OF THE COMMITTEE ABSENT:

None

Sponsor(s):

Rep. Hawkins, Hills 18; Rep. S. Harvey, Hills 21; Rep. McGuire, Merr 8; Rep. F. Holden, Hills 4; Sen. Merrill, Dist 21

What the bill does:

This bill requires the state building code review board to adopt certain code requirements concerning biomass burning boilers which are inspected and subject to enforcement by the department of labor.

This bill is a request of the committee established by SB 98 of the 2009 legislative session to study state regulations governing installation of boilers, pressure vessels, and related high performance HVAC equipment.

Supporters of the bill:

Representative Hawkins, Hills 18; Representative Harding, House ED&A Committee; Representative S. Harvey, Hills 21; Representative McGuire, Merr 8; Representative F. Holden, Hills 4; Senator Merrill, Dist 21; Jasen Stock, NH Timberland Owners Association; Rene Ferland, Bio Heat USA; Mike Fitzgerald, NH DES; Steve Walker, NE Wood Pellet

Those in opposition to the bill:

Donald Bliss; Christine Farmer, NH DOL; Cynthia Flynn, NH DOL; Donald Foley, NH DOL; William Degnen, State Fire Marshal; Wayne Brigham, Chief Building Inspector at NH DOL; Ronald Thomas, Zuruch Services Corporation

Speaking to the bill/Neutral:

None

Summary of testimony received:

Representative Hawkins, Hills 18

- This bill is a request of the committee established by SB 98 of the 2009 legislative session to study state regulations governing installation of boilers, pressure vessels, and related high performance HVAC equipment.
- This bill requires the state building code review board to adopt certain code requirements concerning biomass burning boilers which are inspected and subject to enforcement by the department of labor.
- Up until now we have excluded technology from Europe to be used here. This would allow their use here if they meet or exceed the ASME standards.

Donald Bliss

- Believes this is a slippery slope. There is a big difference between the standards of the two codes. By adopting the EN 303-5 we would be eliminated the public input normally gathered during the code development process.
- To get into the marketplace someone needs to meet existing standards or develop specific standards for the product. This is to ensure standardization. There is a third party testing body that issues a certified product label. This bill lacks that verification step.
- Oregon is the only state that has adopted the EN 303-5 code.

Cynthia Flynn, NH DOL

- If HB 1688 passes, the DOL would be responsible for adopting inspection procedures for EN 303-5. The National Board provides detailed inspection procedures centered on the ASME code, not EN 303-5.
- At this time the DOL is not qualified to perform inspections of boilers built to EN 303-5.
- The DOL's concern and focus must be on the safety of the public and the liability to the State of NH.
- While several states have investigated EN 303-5, only one has adopted it, which would make NH only one of two jurisdictions in North America to adopt it.
- EN 303-5 does not provide any standards for repair, a common occurrence. EN 303-5 does not require filing of data reports, thereby negating access to important equipment history that sometimes includes a lifespan of nearly one hundred years. EN 303-5 is written in metric whereas ASME Section IV includes both metric and western numeric references.
- EN 303-5 latest code book was published in 1999, consequently lacking the very latest technology information. ASME Code is published every three years. EN 303-5 provides no direction regarding electric control standards. ASME does. EN 303-5 provides no direction regarding installation standards. EN 303-5 requires metals that are hard to find and repair. EN 303-5 only requires combustion efficiency rating of 79% even though today's new oil and gas boast efficiency rates of up to 95%.
- There are several pellet-fired boilers constructed to ASME Code in North America.

Wayne Brigham, Chief Building Inspector at NH DOL

- ASME guidelines are much more frequently updated than EN 303-5. We were only trained on ASME codes. The European products can't be repaired in NH.

Steve Walker, NE Wood Pellet

- There are about 100 different boilers available in Europe; there are only 2 options in NH. Jobs have been lost because we haven't been able to take advantage of this market. Other states are watching to see if NH will pass this bill.

- Yes, this will be a burden on the NH DOL but it will be good for NH. The European products are safe.
- This bill gives a 2 year window to translate repair manuals so they can be used here. If this isn't accomplished in the 2 year window, these products would not be sold in NH.
- ASME has a monopoly on oversight in the U.S. A pilot program is possible but our company has financial limitations and the cost of doing all the work that would be required for a full change but then only have access to part of the market would make a pilot program financially impossible.

Representative Harding, House ED&A Committee

- We need to look for more opportunities to bring businesses to NH and to be more efficient with our energy use. European manufacturers have offered to come to NH to provide training for the EN 303-5 codes.

Mike Fitzgerald, NH DES

- We need to figure out a way to move forward with these opportunities. These European products are far more efficient. This is a job creator for NH.

Ronald Thomas, Zuruch Services Corporation

- There are significant differences in the safety factors used to build the boilers built to ASME code as opposed to those built to EN 303-5. While both offer safety when originally installed, the more robust ASME standard appears to me to offer safety over the long period of time that NH businesses and residents expect from their heating equipment to last while EN 303-5 units are not designed to last that long.
- There are significant differences in the method used to calculate the efficiency of heating appliances in the US when compared to the method designated under EN 303-5. I believe that anyone reading the method dictated by the Federal Trade Commission for determining the efficiency of central heating appliances, called the AFUE, will immediately understand the method must result in a significantly lower rating than the result found using the method called for under EN 303-5. The AFUE takes into account the cyclic on/off operation and associated energy losses of the heating unit as it responds to changes in the load, the EN 303-5 method measures efficiency at set firing rates.
- When the Massachusetts regulatory board considered the same issue they chose not to modify their safety codes to allow boilers manufactured to EN 303-5.
- If the European products have a shorter life span and are more prone to failure they will cost more to insure.

Funding:**FISCAL IMPACT:**

The Department of Labor states this bill, as amended by the House (Amendment #2010-0561h), may increase state general fund expenditures by an indeterminable amount in FY 2011 and each year thereafter. There is no fiscal impact on county and local expenditures or state, county and local revenue.

METHODOLOGY:

The Department of Labor states this bill requires the state building code review board adopt certain code requirements concerning biomass burning boilers inspected by and subject to enforcement by the Department. The Department states this bill establishes a new program where there is no process in place for the inspection of boilers and pressure vessels, issuing of operating certificates or boiler inspection licenses for pellet boilers built to the foreign code. The Department states there may be increased state expenditures associated with the retraining of inspectors in the new code.

Action:

Executive action is pending.

cm

Date: April 6, 2010
Time: 4:00 p.m.
Room: LOB 101

The Senate Committee on Executive Departments and Administration held a hearing on the following:

HB 1688-FN relative to the regulation of the installation and operation of boiler and pressure vessels.

Members of Committee present: Senator Cilley
Senator Fuller Clark
Senator DeVries
Senator Downing
Senator Carson

The Chair, Senator Jacalyn L. Cilley, opened the hearing on HB 1688-FN and invited the prime sponsor, Representative Ken Hawkins, to introduce the legislation.

Senator Jacalyn L. Cilley, D. 6: I'm going to open up the bill (sic) on House Bill 1688 and recognize the prime sponsor, Representative Hawkins.

Representative Ken Hawkins: Well thank you, Madam Chair, thank you, members of the Committee. This is the only one that I had signed up to speak on. For the record, Ken Hawkins, Hillsborough County District 18, Town of Bedford.

This bill came out of a study committee over the summer, Senate Bill 98, of which I was not appointed to the committee, but they asked me to attend so I attended. And somehow wound up being the prime sponsor.

This bill allows the ECC codes for especially the pellet stoves to be sold in New Hampshire. Presently, you can put them in your house, you can put them in two families. You cannot put them in industrial or commercial. Everything in the boiler codes that we have in law today say they have to be ASME codes, A-S-M-E. What this does is add this European code to the language of the boiler codes that's handled by the Labor board (sic). We met six times, I think, this summer, over the course of the summer. Heard a lot of testimony from people at the National Boiler and Inspectors level, insurance companies that go inspect the boilers, to certify them and provide insurance,

the Boiler Board, the manufacturers of these, pellet manufacturers, etc. What, this bill was the best that we could come out with to satisfy, try to satisfy. You never satisfy everybody, to satisfy everyone that we could get something working in the state that helps the environment, helps the energy, burns less coal, is a lot cleaner than woodstoves, etc.

And with that, will answer questions, so I don't talk forever, and don't talk about what you want to know about.

Senator Betsi DeVries, D. 18: Madam Chair, I have a...

Senator Martha Fuller Clark, D. 24: Yes, thank you, Senator DeVries, you have a question.

Senator Betsi DeVries, D. 18: Thank you, Madam Chair, and thank you, Representative, for the overview of your legislation. And I recall the legislation somewhat from last year. Is it your understanding that most of the technology that we could benefit from here in New Hampshire has now been allowed under the language that you are proposing in your legislation? Or do you feel that we have excluded a lot of that European technology?

Representative Hawkins: Thank you for the question. Up until this point, we have excluded a lot of the European and other standards because, again, like I said, the actual RSA states they have to have the ASME stamp on them. What this does is allow the Department of Safety, fire folk, and the Building Code Review Board, once they've satisfied all of the requirements of the bill, including the pressure relief valves, the manuals written in English, the plates written in English, etc., etc., to now allow these to be sold here. They cannot be sold here until all of those conditions are met. So, and this is basically the one code that we're putting in for now, and if I remember correctly, there was something in there to the extent that other codes that meet or exceed the ASME standards, because there is some. The way the original bill was written, boilers would have been able to come in that did not meet those standards. So we tried to keep it fairly straightforward just, and I don't have the bill there, I've just got my amendment. It's the EN 303-5 code.

Senator Betsi DeVries, D. 18: Thank you, I was just, follow-up if I might.

Senator Martha Fuller Clark, D. 24: Yes, certainly.

Senator Betsi DeVries, D. 18: Because I was just about to ask you, and I don't see the language that you suggested, equivalent to or exceeding, I think

is what you said. But the EN 303-5, is that, would that be a European equivalency to our ASME or other?

Representative Hawkins: Yes, it's the European code and I want to say it's Sweden where these are manufactured, if I remember correctly.

Senator Betsi DeVries, D. 18: I would believe that might be one of the countries.

Representative Hawkins: Yes. So, yes, that 303-5 standard is what the stoves are manufactured to. What it comes down to is that there's a different plate thickness, a different welding technique that ASME wants that EN 303-5 doesn't use. Okay, those are a couple of the differences that have been brought forward as part of what we heard from the boiler inspectors.

Senator Martha Fuller Clark, D. 24: Do you have?

Senator Betsi DeVries, D. 18: I'm all set, thank you.

Senator Martha Fuller Clark, D. 24: Representative Hawkins, on line 14, the code and amendments thereto adopted under paragraph 1 shall be ratified by the adoption of appropriate legislation within two years of their adoption?

Representative Hawkins: Yes.

Senator Martha Fuller Clark, D. 24: Not very clear English. But who will see to, will additional legislation be brought forward during this two year period? Is that the intention?

Representative Hawkins: The intention is that if there's no legislation brought forward within the two year period, this expires.

Senator Martha Fuller Clark, D. 24: I wanted to get that on the record.

Representative Hawkins: Okay.

Senator Martha Fuller Clark, D. 24: Okay, thank you.

Senator Jacalyn L. Cilley, D. 6: Senator DeVries.

Senator Betsi DeVries, D. 18: And thank you, new Madam Chair. Senator Fuller Clark actually brought a very good point up. If you could take a look,

now that you have the bill in front of you, at that line, page 1, lines 14 and 15.

Representative Hawkins: Yup, 14, yup.

Senator Betsi DeVries, D. 18: Are you trying to say that within two years of the first use or the implementation, that the appropriate legislation will be adopted? What is it, you've got too many adoptions in there.

Senator Martha Fuller Clark, D. 24: It was within two years of their adoption.

Senator Betsi DeVries, D. 18: Because you're saying the code and amendments thereto adopted under paragraph 1 shall be ratified by the adoption of appropriate legislation within two years of their adoption. So we just have too many adoptions in there, and it's confusing your intent.

Representative Hawkins: What we're, the intent of this is to give two years to come up with the rules to allow the installations, okay. If they haven't been done within two years, we have to adopt those rules within two years, otherwise this goes away unless new legislation is introduced to extend the time.

Senator Jacalyn L. Cilley, D. 6: Senator Fuller Clark.

Senator Martha Fuller Clark, D. 24: I guess what I think you're saying, within two years of the adoption of this legislation. In other words, this is setting the base ...

Representative Hawkins: There's a gentleman from the Building Code Review Board.

Senator Martha Fuller Clark, D. 24: Okay, thank you.

Representative Hawkins: This is existing language.

Senator Martha Fuller Clark, D. 24: Okay, thank you, thank you very much.

Representative Hawkins: But he'll be here in a couple minutes.

Senator Jacalyn L. Cilley, D. 6: Okay, are there any other questions? Thank you very much, Representative Hawkins.

Representative Hawkins: Thank you folk.

Senator Jacalyn L. Cilley, D. 6: So maybe what makes sense, this is what I'm thinking. We've got some folks. I would like, I think, first of all. Excuse me?

Senator Martha Fuller Clark, D. 24: I need to leave, so I'd like to hear from the Building Code person.

Senator Jacalyn L. Cilley, D. 6: Alright, we can do that. So why don't we have Wayne Brig... Hmm?

Senator Michael W. Downing, D. 22: Don Bliss is the Building Code guy.

Senator Jacalyn L. Cilley, D. 6: So are you Wayne Brigham? You're Don Bliss. Who's Wayne Brigham?

Mr. Wayne Brigham: I am.

Senator Jacalyn L. Cilley, D. 6: Are you both from the Building Code? No, you're the Building Inspector.

Mr. Brigham: No, I'm the chief boiler inspector from the Department of Labor.

Senator Jacalyn L. Cilley, D. 6: Oh, oh, okay. Alright. So why don't we hear from Donald Bliss. We'll get you three folks up as quickly as possible.

Mr. Donald Bliss: Thank you, Madam Chair, members of the Committee. For the record, my name is Donald Bliss from Hampton. I currently chair the State Building Code Review Board as the designee of the Commissioner of Safety.

By way of background, for those of you that don't know me, I served for 12 years as your State Fire Marshal. I have about 35 years of experience in the world of codes and standards, and have served and currently serve on numerous and chaired numerous technical committees for the National Fire Protection Association, and have served on a technical committee for the International Code Council.

Also by way of background, I've got some experience in the European code world. Have done work on issues related to the harmonization of standards for fire safety, for consumer products, home furnishings and building construction materials. Have worked with officials for the European Union,

officials in Sweden, Germany and most of Scandinavia. So I think I have a pretty good perspective on the issue of trying to draw a European standard into the U.S. code environment.

I'm speaking in opposition to the bill for a couple of reasons. And I first want to speak about process related to the State Building Code Review Board. The Building Code Review Board was established a number of years ago and our role and function is to basically be the final step in the adoption of building codes for the State of New Hampshire, to insure uniformity in the standards that are adopted. By statute, the codes that we are authorized to adopt are very specific. It includes the International Code Council standards, the International Building Code, International Residential Code, the International Energy Conservation Code, the Plumbing Code and the International Mechanical Code. The State Fire Code functions, activities come totally under the jurisdiction of the State Fire Marshal through his rulemaking process, and does not come before the State Building Code Review Board.

But when I talk about codes, it's really a higher level that we're dealing with. We do not and have not dealt with specific product standards. And the primary reason I'm opposed to this legislation is I think it's a slippery slope for you to start involving us as a Board with making judgments on specific products and the standards that apply to those. There's a difference between a standard and a code. The code is the overall document dealing say, for example, with a structure and within that code we'll refer you to standards, whether it's a plumbing standard, whether it's a mechanical standard, a fire safety standard. And those are the more prescriptive requirements that get down to the particular products that might be installed in a building.

So that's the first issue of, as a policy, I would urge you not to ask the State Building Code Review Board to start looking at product reviews. Because we already have had people come through, come to us and ask us to incorporate their particular product into the State Building Code. And there are problems with that. There's liability issues, there's a lack of expertise on our volunteer board to do that. Where there are national mechanisms for doing that kind of review, either through a group like Underwriters Laboratory, Inspector Mutual, ETL Certified Labs, that do develop standards.

Now the second issue, by simply adopting a European standard, you're really eliminating the public input into the development of that standard. If you look at the National Fire Protection Association process or the International Code Council process, you or I or any member of the public at any point in that development of the code, can have input. By testimony, by written comment. By adopting a European standard, we've now eliminated that

entire process of adopting or allowing for public comment during the development of the standard.

And as I mentioned before, our board is volunteer. We simply don't have the time nor the expertise to be doing specific product reviews.

Senator Jacalyn L. Cilley, D. 6: I guess I have a question on that then.

Mr. Bliss: Sure.

Senator Jacalyn L. Cilley, D. 6: If everything that you're saying being the case, how does one get a new product into this market? What if it's something more efficient and, you know, the next best widget? I'm hearing very little opportunity to do that. Legislature doesn't have, you know, the expertise to do it and I happen to be pretty much in agreement with that. But then you say you've got a volunteer board and you need public input and all. So how does somebody get into our marketplace?

Mr. Bliss: You do that through the existing standards making bodies that exist in the United States today. Whether it's the American National Standards Institute, the American Society of Mechanical Engineers, ASME, through Underwriters Laboratories. You either meet an existing standard or you go through a process to develop a specific standard for your product, and that's done all the time. That's constantly in progress. And there are committees and standards groups of thousands and thousands of experts and individuals that contribute to those committees and efforts.

Now, certainly, there's a price for that. A company has to pay for that process, but it ensures a standardization. When it comes to this European standard, there are processes in place for the harmonization of standards on an international basis so that the, if there's a U.S. perspective on a product that needs to be incorporated into that standard, that indeed can happen. And I would suggest that that's the process that should be adhered to at this point in time.

Senator Jacalyn L. Cilley, D. 6: Okay, thank you.

Mr. Bliss: The other, final thing I would say in addition to the harmonization issue, is typically when a product is approved, certified to meet a standard. It bears a mark or a label from a nationally recognized testing laboratory - UL, ASME, there's the National Gas Association. Whatever the product may be, there would be an appropriate label for that. In this legislation, and if I'm just reading it wrong I would be happy to stand corrected, but there's a requirement for the EN 303-5 symbol. But it doesn't

say who affixes that symbol, who tests to that symbol. And in the European process, typically it's a self-certification process, which is not adopted or acceptable in the U.S. So I would caution you on that issue.

Senator Jacalyn L. Cilley, D. 6: Okay.

Mr. Bliss: So I would, in closing, ask that you vote this inexpedient to legislate. Thank you very much.

Senator Jacalyn L. Cilley, D. 6: Thank you. Are there questions for Mr. Bliss? Senator DeVries.

Senator Betsi DeVries, D. 18: And thank you, Madam Chair. The last part that you just said, the labeling for the EN 303-5, is not applicable here in the United States. But yet in section 1 of the bill, it's requiring that certain data plates and warning labels be written in English, etc. Would that make it applicable?

Mr. Bliss: No, because what's missing, if I may, Madam Chair. What's missing is that independent third party, the requirement that an independent third party testing organization affix that label. I mean it's, the manufacturer may put information, certainly manufacturers put information on their products all the time. But what an inspector typically looks for, or the regulatory agency is looking for is that independent third party organization that has national standing to do that.

Senator Betsi DeVries, D. 18: Gotcha. Follow-up if I could.

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Betsi DeVries, D. 18: It's a verification of the statements that they're making, that is not made by a third party.

Mr. Bliss: That's correct.

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Betsi DeVries, D. 18: To your knowledge, with your background, are other states somehow overcoming the problem so that they can avail themselves of this new technology?

Mr. Bliss: On this particular issue, it's my understanding that the only state that has partially adopted some requirements is the State of Oregon, and comparatively limited use for that. But again, there are new products

coming on the market all the time that go through a certification approval process, and it's certainly not intended to restrict efficiency or new ideas or new capabilities.

Senator Jacalyn L. Cilley, D. 6: Okay. Senator Fuller Clark. Oops.

Senator Betsi DeVries, D. 18: Clarification on that if I can, because you said on this particular piece. So you're speaking with the pressurized vessels?

Mr. Bliss: Correct.

Senator Betsi DeVries, D. 18: That would be required in furnaces. It's to your knowledge that only Oregon has adopted a piece of that technology or standardization?

Mr. Bliss: If I, maybe I could clarify myself, Madam Chair.

Senator Betsi DeVries, D. 18: Thank you.

Mr. Bliss: Adopted this particular European standard that we're talking about.

Senator Betsi DeVries, D. 18: The EN 303-5.

Mr. Bliss: 303-5, yes, correct.

Senator Betsi DeVries, D. 18: Okay, thank you.

Senator Jacalyn L. Cilley, D. 6: Senator Fuller Clark.

Senator Martha Fuller Clark, D. 24: My question is, do you know what has been the history of safety and efficiency regarding this product in Europe?

Mr. Bliss: I don't. I'm not familiar with, you know, the use of it. And again, believe me, if there are environmental reasons to do this. The little reading I've done on it, is that there are much more restrictive pollution requirements. Certainly, all in favor of that. I'm specifically talking about the process of adopting it here in New Hampshire, we're going down a slippery slope with that.

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Martha Fuller Clark, D. 24: I guess that, just, I'm concerned that if we can't look to more efficient and effective energy products coming from Europe, because they are ahead of us. And it's my understanding that, you know, these are proven products, that we're going to be behind in being able to move ahead with energy efficiency and that to be able to get some of these products approved at the national level will be much harder and take that much longer. And I believe that the reason that this bill was brought forth partially was because we have a very strong emerging wood pellet industry in New Hampshire. And that, so, I just wanted to have you comment on the fact of barriers preventing us from going forward in terms of, one, economically supporting businesses here in New Hampshire and, two, of the overall agenda with regard to achieving much greater energy efficiency and meeting the Governor's climate change goals.

Mr. Bliss: If I may, Madam Chair?

Senator Jacalyn L. Cilley, D. 6: Absolutely.

Mr. Bliss: I can speak from personal experience to your question. Two years ago, I installed or had installed a new gas boiler in my house that has 97 percent efficiency rating, which happens to be made in Germany. The U.S. headquarters of that company is in Londonderry, New Hampshire. So I don't think that across the board the issue is as, that as many barriers as may be perceived may be for this one product, for whatever reason, has either not sought out harmonization or ability to get approval under U.S. standards. I don't know all the history to it. But there are certainly European technologies in a lot of areas that are adopted here and I'm currently working with some European companies that are bringing their technology here in a variety of areas.

Senator Martha Fuller Clark, D. 24: True.

Senator Jacalyn L. Cilley, D. 6: Are there other questions? Thank you very much. Could I call Christine Farmer and Wayne Brigham, both from the DOL, right?

Ms. Christine Farmer: Yes.

Senator Jacalyn L. Cilley, D. 6: Okay, why don't we come together. We are really running behind, I'd like to get a couple of bills out of here before we leave.

Ms. Farmer: Okay. I'll be brief.

Senator Jacalyn L. Cilley, D. 6: Thank you.

Ms. Farmer: I'm Christine Farmer from the Inspection Division of the New Hampshire Department of Labor. My administrator, Cynthia Flynn, has given me ...

Senator Jacalyn L. Cilley, D. 6: Spoke with her about this earlier.

Ms. Farmer: Yes, and she told you that I would be bringing her written testimony to pass out.

Senator Jacalyn L. Cilley, D. 6: Yes, so if you'll submit that to Cathy, I'd appreciate it.

Ms. Farmer: Okay. Just briefly, the DOL does oppose. First, the DOL does not oppose renewable energy and biomass heating and pellet boilers. The DOL opposes adopting this standard that doesn't meet the safety code adopted by the State of New Hampshire since 1968. The ASME Code is a nationally recognized safety code for manufacturing and installing boilers and pressure vessels. It's also widely accepted throughout North America and Europe. At this time, the Department is not qualified to perform inspections of boilers built to this standard. We don't know what their physical impact would be for that, for retraining boiler inspectors and exactly what it would take. **See written testimony of Cynthia Flynn attached hereto and hereafter referred to as Attachment 1.**

Senator Jacalyn L. Cilley, D. 6: We'll make sure to read this, Christine. I wonder if you could just tell us sort of the highlights. What is the, what are the overarching concerns of the Department of Labor?

Ms. Farmer: I'm not reading her statement, so it is something different.

Senator Jacalyn L. Cilley, D. 6: Oh, I was sort of following along on your points.

Ms. Farmer: Well our concern is that there may be a fiscal impact. We're not trained to inspect boilers built to this standard. For numerous reasons, there's difference ...

Senator Jacalyn L. Cilley, D. 6: So you're just, on that point. You're saying that your department would have to receive training for this?

Ms. Farmer: Right, and we're not sure where that training would come, what the impact would be. So there may be a fiscal impact, is what I'm saying.

Senator Jacalyn L. Cilley, D. 6: Okay.

Ms. Farmer: For numerous reasons, because of the differences in the standard and the code. The Chief Boiler Inspector, Wayne Brigham, here can answer your technical questions about those differences, and that's why we brought him. And probably I should turn it over to him and move right along. Thank you.

Senator Jacalyn L. Cilley, D. 6: No, , no, stay, stay. We may have some questions.

Ms. Farmer: I'll move over.

Senator Jacalyn L. Cilley, D. 6: Okay, don't go anywhere.

Mr. Wayne Brigham: Okay, I'm Wayne Brigham, I'm the State of New Hampshire Chief Boiler Inspector. I've been inspecting boilers going on my 40th year.

The main thing I wanted to bring out is, the EN 303-5 code, the last publication was in 1999. The ASME code is over 100 years old and was last published in 2007 and is due for a new publication in 2010 with all the different changes that it has encompassed within those years. The main reason why I am opposed to this bill is, when we go out to inspect boilers. We come upon the scene and the first thing we look for is the manufacturer's data plate. Which you can look at, can see the code symbol indicating we know that that boiler has been built to ASME. We look for the maximum allowable working pressure on that boiler and the minimum relief valve capacity. That's our main structure to perform our inspection. On the European manufactured boilers, you do not get that information.

I'll give you an example. I came across two of them yesterday, and one data plate, data tag I looked at, it gave me working pressure of two bars, five bars. I don't know which indicates the maximum allowable working pressure on the boiler. It had no minimum relief valve capacity on it.

The other boiler I looked at, the data tag on it, it had some information on it but it didn't tell me that that information pertains to the boiler I was looking at, okay. Christine Farmer said the relationship to, as what we're qualified to inspect these boilers or not. Back when I first got my boiler inspector's license, I was given an examination that was all ASME code. So that's what I know is ASME code construction. The EU code, they use different type of materials and they do a different type of welding to assemble that boiler.

Senator Jacalyn L. Cilley, D. 6: Okay, so if I understand you correctly, the, you've been trained to certain specs. This could require different training. It will not adhere to the safety standards that we currently have in place in the State of New Hampshire. So some of those things would have to be changed.

Mr. Brigham: Okay, but a big factor is that when an EN boiler is manufactured, a manufacturers data report is not made up and follows that boiler. So if down the road one of these EN boilers are required to be repaired, it cannot be repaired in the state of New Hampshire, because in New Hampshire all welded repairs must be done by a repair shop holding an R stamp. That R stamp, they run audits, quality control manuals all pertaining to ASME, not the EN code.

Senator Jacalyn L. Cilley, D. 6: Thank you. Okay, are there questions for either Christine Farmer or Wayne, Brigham, Bridgham?

Mr. Brigham: Brigham.

Senator Jacalyn L. Cilley, D. 6: Brigham. No questions? Thank you very much. Chief Degnan left?

Mr. Bliss: He had another hearing to go to.

Senator Jacalyn L. Cilley, D. 6: Another hearing? Okay. He actually didn't put down there to would speak, anyway. So, and Representative Harding, did she want to speak?

Mr. Brigham: She just stepped out, she'll be back.

Senator Jacalyn L. Cilley, D. 6: Okay, why don't, Steve Walker, right there.

Mr. Steve Walker: Thank you, Madam Chair and Committee. Bear with me, a little cough here. For the sake of time, I think I'm going to save everybody from the big history of this. Because we've certainly spent a lot of time with the House, which has done a great job, amending and put this bill before us. Which certainly has got some compromises but all in all we're happy with it.

Senator Jacalyn L. Cilley, D. 6: Oh, you do need to identify yourself, I'm sorry.

Mr. Walker: I'm sorry, Steve Walker, for the record.

Qm

Senator Jacalyn L. Cilley, D. 6: From?

Mr. Walker: New England Wood Pellet LLC in Jaffrey, New Hampshire.

Senator Jacalyn L. Cilley, D. 6: Okay.

Mr. Walker: And we've been in business here in New Hampshire for about 15 years, have about 85 employees. And we're probably one of the primary pushers behind this bill.

The reasons are, quickly, if I'm going too quickly, stop me. When we had that big price in oil, by my accounts we had about two boilers that were installed in the entire state, and we had potentially thousands that could have been. The reason was, there was none available. Truly none available. The ones that were put in were kind of handcrafted and custom engineered to work around all these regulations.

Today, there's about three or four boilers available, and actually we have introduced one under the ASME code. It cost us somewhere close to \$1 million to get one converted from the European to this, not making it any safer, not making it really very much different. But just, the codes don't work together. It's like dealing with two different languages entirely.

The, I just came back from a trade show in Europe, where there was about 100 different models of boilers for sale. And New Hampshire residents have a choice of two out of 100. And the real push for this isn't even so much for our company, but I think the general population in New Hampshire. The vast, vast majority of this technology, it just so happens at the moment, is being developed in Europe. The vast majority of boilers being sold in Europe are under this and several other European codes, but this is the biggest one we're talking about here.

What this will do is ultimately allow, maybe one step closer to allowing people in the state of New Hampshire to have more options. Ultimately, I see these boilers being built here. I see a whole industry being built here. I see a phenomenal number of jobs being created here. I can also testify as a fact jobs have been lost because of not having a bill like this through. We have actually laid people off for the first time in years this year. The, while we're sitting on massive inventories of fuel that's cleaner, better, locally made and cheaper than oil, and we're not able to sell it. So to give ourself as motivation for this, that's it. But certainly for the common good of New Hampshire, it's very important.

We're also working closely with the states of New York and Massachusetts, both are watching this very carefully. A lot of people within those two states agree, have the same problem. Where they just don't have enough of an array of products available.

We also, going back three years, four years, got an ASME boiler into our plant and as any of my employees can attest, I was utterly embarrassed, pulled it out. It had nothing to do with ASME, but it had to do with what was being built here in the U.S. The emissions were too high, the efficiency wasn't nearly good enough. It's not something that we wanted to even see the industry sell, let alone our company.

The fact is it takes millions and millions of dollars in research and development and time to put this together. No one is going to spend that money without an industry and we're not going to have an industry until someone can spend the money. And that's the chicken and egg. That can be broken by allowing these boilers to start coming in. Ultimately, I believe they're going to be built here, so some of the cases being made in the past had to do with jobs. There's no question, that Sweden and Germany where most of these things are being built have more expensive labor than we do. We can compete with them ultimately. What I think is very inefficient is to recreate the tens if not hundreds of millions of dollars of R & D that have gone into these and just have to recreate this all for the sake of what I perceive as a very antiquated code. I recognize testimony ...

Senator Jacalyn L. Cilley, D. 6: But you recognize, I just want to stop you on that point for one moment. You recognize that what we're being asked to do here as a Legislature, with no particular expertise in the technology or anything else, is to deem it acceptable.

Mr. Walker: Yeah.

Senator Jacalyn L. Cilley, D. 6: And tell our departments, deal with it.

Mr. Walker: Yeah.

Senator Jacalyn L. Cilley, D. 6: Wouldn't that trouble you in some other areas?

Mr. Walker: Here, make sure I give you two answers for that. One is, is there's no question this is putting a burden on the Department of Labor to have to work with this. But my perception is, is laws are for the people of New Hampshire, not for a particular department, not for a particular industry, and not even this legislative body. It's really about the people of

New Hampshire. And I have from day one said this. I've also said that we will be there in any support we can and have capacity to, to see this through, whatever training is necessary. One thing we don't want to do is to circumvent this, and that is precisely what's happening. And I think Wayne even testified to that. He's looking at boilers that are being brought in from Europe with inappropriate plates and what have you. That's the kind of thing that really scares me. What I want to do is have a law so they work with the proper inspectors to make sure no one gets hurt.

To answer the question of really what the ASME is about is safety. From a company standpoint, our first, we have three customers lined up right now and we're installing systems in schools. If you want to see our company, which has been 20 years in the making and my entire life and then some, just ask my wife. The, it would be over, overnight, if we had a catastrophe in a school. You can imagine, it'd be done. So I'd be the first person to be scared to death of a safety issue. I am, from all the engineering, we have our own in-staff engineering, consulting engineers, it is crystal clear to me that what's made over there is safer. I'm not suggesting in that comment that ASME is not safe enough. The fact of the matter is with either code, we haven't been able to find a death and we've done the research. I can tell you how many people died on bicycles in this country, general aviation, regular aviation. We haven't been able to find ...

Senator Jacalyn L. Cilley, D. 6: You'll hold that, because we are so far beyond the amount of time. But I do want you to answer some questions.

Mr. Walker: Yeah, so fire away, I'll stop with my ...

Senator Jacalyn L. Cilley, D. 6: So, some of the things that I think are of particular concern include the fact that these aren't coming in with a manual so they can't be repaired. How would you respond to that?

Mr. Walker: We've already, at the House, said obviously we'll take care of that problem. They're coming in now because there is no code. What we're hoping for is to have some direction and have a code so we can go to the manufacturer and say this is the manual, this is how it's going to be printed, along with those name plates he just suggested. I mean that is, that's not an issue. That we will, that should be written into it and that should be taken care of.

Senator Jacalyn L. Cilley, D. 6: Alright. I think Senator Fuller Clark had her hand up and then after Senator DeVries.

Senator Martha Fuller Clark, D. 24: Okay, so as I understand it, that if we were to return to the first part of the bill, on line 6 on the first page, it said the board shall adopt a code and amendments thereto which shall regulate the installation and operation of biomass burning boilers. The code adopted shall include the 199 EN 303-5 standard established by the European Committee for Standardization, and shall include requirements for the safe installation, operation and repair of such boilers.

Mr. Walker: Correct.

Senator Martha Fuller Clark, D. 24: The implication there is that would be translated into English so that it would be available, is that correct?

Mr. Walker: Absolutely.

Senator Martha Fuller Clark, D. 24: Okay. Secondly, again, with regard to the data plates and the warning labels written in English, the limits on the temperature and pressure with associated relief values and filing of the construction and emissions specifications written in English.

Mr. Walker: Correct.

Senator Martha Fuller Clark, D. 24: So some of the concerns that have been raised here are addressed by this first paragraph, is that correct?

Mr. Walker: Absolutely.

Senator Martha Fuller Clark, D. 24: And just to follow-up, what it's also saying is this has to be done within two years. If it's not done within two years, then the effort to authorize these European code boilers will cease, in a sense.

Mr. Walker: Correct.

Senator Martha Fuller Clark, D. 24: So that you have a window within which to do this before they can be sold. Is that correct?

Mr. Walker: Correct.

Senator Martha Fuller Clark, D. 24: Okay, and if you don't meet these requirements, then at the end of two years if you haven't done so, they can't be sold here.

Mr. Walker: No problem whatsoever. We've never, I wouldn't let a bill go through without requirements like that.

Senator Martha Fuller Clark, D. 24: Okay, follow-up?

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Martha Fuller Clark, D. 24: Can you tell us what's happening since it looks like, as we heard in Oregon, is the other state that has approved these boilers?

Mr. Walker: Yeah, not, well, Oregon is a very small state in population. So not a whole lot. I don't know, our market area doesn't cover Oregon. One of my understandings is, though, and one of the things through the process through the House we discovered, which is why this has taken quite some time, is that they went ahead. And my understanding, again, I, please don't take this as gospel.

Senator Martha Fuller Clark, D. 24: It's okay.

Mr. Walker: That they passed a law saying you can install these but they haven't amended and updated all the building codes to do the same, and so that's created a problem. We almost fell into that same trap until one of, I think the insurance, somebody brought up, hey, you can't do this because it's not in the codes. And that's why that has been included. So that's going to be important.

And frankly, to really make this successful, we need other states involved in working on that. However, just doing this in New Hampshire, make no mistake. If we can just get one or two or three boilers in, this is hundreds of thousands of dollars of savings to the consumers of New Hampshire.

Senator Jacalyn L. Cilley, D. 6: Thank you. Senator DeVries.

Senator Betsi DeVries, D. 18: Thank you, Madam Chair. I wanted you, Mr. Walker, and thank you for coming forward today. I wanted you to clarify your comment that you said that these furnaces are already here in New Hampshire.

Mr. Walker: Correct.

Senator Betsi DeVries, D. 18: They're just coming in without any kind of oversight.

CSM

Mr. Walker: Yeah, there's some residentially, they don't need to have a code. That's sort of the irony of this is that it's okay to have it in your house without a code, but not in a professional environment or a commercial environment, school, hospital, what have you. So, yes, they are. And people have been bringing them, you can bring them in and atmospherically vent it, to in effect circumvent this law. But then that goes against their code. So they're legal in the state. I could install one right in this building and in fact we've had the inspector come in to inspect the fact that they didn't have to inspect the boiler by atmospherically venting it. The problem is you're going against the warranty and all the recommendations and the safety of that, of what the European code says. And then now I'm back in the liability trap. This thing goes and I've modified it against a code, you might as well tie your own knot and shoot yourself in the head. I can't do that. So ...

Senator Betsi DeVries, D. 18: Could you clarify atmospherically?

Mr. Walker: All that does, what ends up happening is you install a pipe into the boiler and then you bring a stand tube up high enough to create enough pressure in the boiler. It's sort of like a toilet works.

Senator Betsi DeVries, D. 18: Okay.

Mr. Walker: I don't mean to get bathroom humor in here, but it may happen by mistake. That we in effect took a toilet bowl and then that regulates the water and then keeps the pressure, instead of just having a simple pressure valve. The problem with that is it's open, oxygen gets introduced in there. And where they have a problem is that can create internal corrosion that you either can't or it's very difficult to inspect. And so that's their, why they said, you know, forget it. We're not going, they didn't want to sell us the boilers under those conditions. However, they are coming in and that's what I'm seeing happen.

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Betsi DeVries, D. 18: Can you speak also to the repair problem that was brought to our attention, that without the proper certification, nobody can work on the pressurized vessel.

Mr. Walker: Whatever the certification, I recognize there are loose ends. The fact of the matter, they're using very similar steel, very similar welding, very similar everything. We need to just qualify exactly, like for instance, what kind of welding rod gets used on what kind of vessel. It, and you know, these things... By the way it's very, very rare that you do repair them. In fact, I don't know of one. But if you do, you certainly do have to use the

correct welding techniques. They're not using steel from Mars. In fact, it's steel that's probably identical. My guess is we'll be using the same welding procedures and what have you, so I don't see that as a problem. I do and will commit and certainly under my name, will not sell a boiler without the information on how to repair it. We'll take responsibility for that.

Senator Betsi DeVries, D. 18: Can I ask?

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Betsi DeVries, D. 18: It may help us in our deliberations. Have you considered somehow working on a pilot program to try to help us, as well as the officials, with the long term oversight. Look at this maybe in a more limited fashion, to work out some of those wrinkles that you referenced even yourself?

Mr. Walker: We did, going back in history, we first started of course with the Department of Labor and spent quite a bit of time with them. It was crystal clear that they emphatically, absolutely no, without question was this going to happen. And understandably. I don't, there's no animosity ...

Senator Betsi DeVries, D. 18: They have a job to do.

Mr. Walker: ...with me to them, because the simple fact of the matter is their entire industry. The ASME has a complete and total monopoly in this country on these regulations. Which is not, that's not the case with UL, for instance, they have competitors. And we have no problems with UL. See all these boilers have to conform to all these other American ones. There's only one that's really a sticking point, is ASME. What certainly I hear arguments over there, it's protectionism or whatever you want to call it, that makes sure they can't compete.

The other issue is the boilers end up being much heavier, they require far more steel for no apparent reason. It's certainly not for safety, in my opinion.

Senator Betsi DeVries, D. 18: European, the European boilers?

Mr. Walker: No, the American ones. And so we tried this, they clearly didn't want to work with us. And I even met with the Commissioner, very great guy, and he said go back to our guy. It was just clear that it was going to be ASME or nothing and go away. And so then we're here, and again, understandably. I think it would be putting them in a very bad position to be advocating for this because their entire network, their whole life is wrapped around ASME. That's my understanding.

Senator Jacalyn L. Cilley, D. 6: Thank you. Are there further questions?

Senator Betsi DeVries, D. 18: He didn't answer the question of the pilot.

Mr. Walker: I'm sorry.

Senator Betsi DeVries, D. 18: Might there be a way for us to look at this as some sort of a pilot?

Mr. Walker: We could.

Senator Betsi DeVries, D. 18: To limit the scope immediately?

Mr. Walker: We could. Recognize that, you know, although we're, I guess, a medium sized business as far as New Hampshire's concerned, we can only afford so much at this point. We've gone down this road, we've invested tens and tens of thousands of dollars in this process right here today, if not more, maybe hundreds of thousands. And at some point, we're at a breaking point where it's just not worth it and we just go another road. That's the issue.

Senator Betsi DeVries, D. 18: Understood.

Mr. Walker: So the answer is yes, I'd be willing, but recognize there's financial limitations to our one company to addressing this.

Senator Jacalyn L. Cilley, D. 6: Okay, I'm not sure, if I could follow-up on that question. How would you do a pilot program without creating the manual and everything else? I mean, it seems to me ...

Mr. Walker: We would probably have to do all that, and that's sort of the issue.

Senator Jacalyn L. Cilley, D. 6: Okay, so that's ...

Mr. Walker: You spend all the money for a very focused group. We spent \$1 million, just about, to convert one boiler to ASME. We now have to pass that along. At the moment, it's increasing the price to the consumer by \$60,000. A gas boiler of that same size is about \$50,000. So we have in effect a tax on a boiler more than the fossil fuel boiler cost in the first place, before we've ever made a boiler. And that's where the real problem is.

Senator Jacalyn L. Cilley, D. 6: Okay, thank you. Are there any further questions of Mr. Walker? Alright, thank you very much. Mike Fitzgerald,

you're either last or Representative Harding, did you want to speak to this as well?

Representative Laurie Harding: I'll just say, I know you're behind.

Senator Jacalyn L. Cilley, D. 6: We're really behind, so... No, no, no.

Senator Martha Fuller Clark, D. 24: I would like to hear from Representative Harding.

Senator Jacalyn L. Cilley, D. 6: Well, I had sort of ... Go ahead, Representative Harding. Mike, forgive me.

Senator Sharon M. Carson, D. 14: I think there's another gentleman.

Senator Jacalyn L. Cilley, D. 6: I don't have any more names on my list.

Mr. Ronald Thomas: Madam Chairman, I left to feed the meter at about 3:40 because you were running so late, and that's why I wasn't here to sign.

Senator Jacalyn L. Cilley, D. 6: Alright, Representative Harding would you come forward please. Then we will put your name on the list. We are running late though, so.

Representative Harding: You want me to wait until you get ...?

Senator Jacalyn L. Cilley, D. 6: No.

Representative Harding: Madam Chair, members of the Committee. For the record, my name is Laurie Harding, representing Lebanon and West Lebanon.

And I would just like to say that House ED&A and House Science and Technology Committee, perhaps already mentioned by Representative Hawkins, passed this bill out this spring after working on it for two years. Really feeling that this was the time that we really needed to look for new opportunities in the area of renewable energy, and also an opportunity to invite new businesses to come into this state with new job opportunities. I think that it's really important to be thinking out of the box. There are barriers here that I think are manageable, that we can deal with in order to move industries like this ahead. We spent a long time talking about safety. The individuals who were involved in this particular work in the state went to great lengths to explore what was available in Europe in terms of any safety concerns. And there are none that could be identified.

The other thing that is really important is that the European maker of these boilers has offered to send people to New Hampshire to train people to inspect these boilers here, and have offered to actually do the translation and work to develop manuals.

So I hope, I know that ASME has felt very strongly about this and these individuals that have actually gone to the point where they've tried to take the European boilers and bring them up to ASME codes, but it costs \$2,000 more, I believe, to go through that process. I see this as an opportunity, and I hope this Committee will seriously look at these individuals here that are experts in this area as really good resources. And I know our Committees will strongly encourage you to consider favorably upon this bill.

Senator Jacalyn L. Cilley, D. 6: Thank you.

Representative Harding: The other thing is we've got two departments. We've got DES and Energy and Planning saying go for it, and we've got Labor saying don't go for it.

Senator Jacalyn L. Cilley, D. 6: That's clear.

Representative Harding: So it's an interesting bind that it puts us all in.

Senator Jacalyn L. Cilley, D. 6: Before you run, are there questions for Representative Harding? Okay, thank you very much. Mike Fitzgerald, could I see you?

Mr. Mike Fitzgerald: Good afternoon.

Senator Jacalyn L. Cilley, D. 6: Good afternoon. It still is, are you sure?

Mr. Fitzgerald: Depends on your definition of afternoon.

Senator Jacalyn L. Cilley, D. 6: We're trying to keep about five minutes to exec out a couple more bills, so if you'll ...

Mr. Fitzgerald: I'll try to keep it as brief a possible. Mike Fitzgerald for the Department of Environmental Services, Air Resources Division. My group within the Division is responsible for energy and environmental legislation related to air and climate issues. And we have worked extensively with the Legislature over the past several years on a number of renewable initiatives, including the renewable portfolio standard, the 25 x 25 plan that the Governor has adopted for achieving goals for renewable energy, the climate

action plan. And we also, I sit on the EESE Board, which is a board that is statutorily charged to help promote the development of renewable and energy efficiency measures here in New Hampshire.

We obviously support this bill. We understand the concerns, but basically, you know, I guess the situation that you're hearing is, you know, we're bringing in telephones and the existing bureaucratic infrastructure is related to telegraphs. And we want, we need to figure out a way to move ahead. For our climate action plan, we need to achieve significant, significant reductions in climate related emissions. One of the ways to do that is through the increased use of biomass and renewable resources in the state. But at the same time, we also see concerns. As Mr. Walker mentioned, over the past several years we've seen increased wood burning, primarily in the few years since oil spiked to \$4 or \$5 a gallon. In particular, over in the Keene area, we're now measuring particulate matter levels in the winter that are approaching, exceeding national standards. And it's related, I can bring in charts and graphs at some point if you want. But it's purely related to wood burning. We see significant p.m. increases at night when woods stoves are burning at their highest.

So our concern is on the one hand, we certainly want to see reduced emissions of CO² and other climate related pollutants. But at the same time, we do not want to see significant increases in wood burning particulate matter related pollution, and we see these appliances that are European certified coming in with efficiencies that are close to that of oil burners. Also, all of good high efficiency oil burners at this point in time.

All of our efforts over the past few years in this area have been towards promoting increased renewables. And we think that hopefully the direction that this legislation will take is to try to get people to take a look at how to work together. The issue that's been brought up is, you know, what states are doing it? The ASME has a national perspective and so on. I think state by state, it's tough for states to take individual stances, but I will note that the State of Vermont has recently passed a similar bill to this. **See Vermont bill S.293 attached hereto and hereafter referred to as Attachment 2.**

Senator Jacalyn L. Cilley, D. 6: If you'll give that to Cathy, then? Thank you.

Mr. Fitzgerald: The Senate, it has not been signed into law. We are working with the other six New England states on this issue in particular, through an organization called NESCOM, trying to sort of break this in. Hopefully, New Hampshire can be a leader. And as we move on, get other states to do so, it'll work better.

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Last, all of our analyses on the renewable energy front for the past several years and the legislation we've been promoting, we've had economic analyses associated with these done by, you know, people such as Professor Gittell at UNH and so on. All of those analyses have pointed to the fact that these are job creators for the state, and so hopefully this will be the same. If we can bring in these type of technologies and if these type of technologies can come to the United States and be demonstrated and be then possibly, be built here in New Hampshire, if we can attract them. So ...

Senator Jacalyn L. Cilley, D. 6: Great. Okay, thank you. Senator Fuller Clark.

Senator Martha Fuller Clark, D. 24: Yes, I just wanted to comment about the attention between national standards and states. And it seems to me that time and time again, we've seen that states in so many areas have been incubators. And that what has happened at the state level has then ultimately been adopted at the national level, but without the opportunity for states to move in new and innovative directions. Could you speak to that?

Mr. Fitzgerald: Certainly not directly in terms of the technical issues here, but in terms of environmental programs and situations, you know, we, states have adopted RGGI and other regulatory programs and so on, that we strongly believe have led the way for national programs and national regulations. And we have, what we've done is we've gotten together in states and we have put our heads together and said, here's a nut we need to crack and we're going to figure out a way to do it. And as always, you know, RGGI and the RPS and so on, many examples, we spent years trying to figure out how to work together. You know,

Senator Jacalyn L. Cilley, D. 6: Thank you.

Mr. Fitzgerald: ... I mean, you put 11 states in the same room and try to get them to do the same thing.

Senator Martha Fuller Clark, D. 24: Thank you.

Senator Jacalyn L. Cilley, D. 6: Are there other questions? Thank you very much. Ronald Thomas. We are desperately trying to be out of here by 5, and I do apologize, we're just running way behind.

Mr. Ronald Thomas: The majority of what I had to say is in writing.

Senator Jacalyn L. Cilley, D. 6: Okay, then leave it right there and when Cathy gets back, she'll hand it out.

Mr. Thomas: I'll try not to cover that data.

Senator Jacalyn L. Cilley, D. 6: So if you will just hit the highlights for us.

Mr. Thomas: My name is Ronald Thomas, I'm a licensed certified boiler inspector in the states of New Hampshire, Maine, Vermont, New York, New Jersey and Connecticut. I work for an insurance company, Zurich Insurance. I go out and inspect boilers for them. I've been doing this for six years. Prior to that, I was a marine engineer running ships' power plants for 30 years.

I am intimately familiar with boilers and their operation and repair. I'm also very familiar with mixing codes, because the United States Merchant Marine started taking in foreign built ships, which were built to standards other than American standards. And I am pretty familiar with some of the disasters we dealt with because those codes did not match.

Senator Jacalyn L. Cilley, D. 6: And are you speaking in favor of the bill or in opposition?

Mr. Thomas: I'm speaking opposed, to oppose, in opposition.

Senator Jacalyn L. Cilley, D. 6: Okay.

Mr. Thomas: The, some of the information that is coming out is mistaken. ASME code boilers are required in this state to be put in residences. There is no exception for residences for the meeting of the building code or the fire code requiring ASME boilers. ASME boilers in residences or other boilers are not inspected by law, but they are required under code. So when people say that they're already here, they are correct, but they are in violation of code.

The company I work for was very concerned about this. They asked me to appear before the House. I testified against this bill. I think it's got some serious problems. One of the things is, ASME is a code and this is a standard and there is a big difference between a standard and a code. Some of the comparisons that the main study that seems to have been used for the approval of this by the House committee, I see some huge flaws in the technical knowledge of the people that wrote that study. I read the House report and almost fell out of the chair when it said that ASME boilers are cylindrical and European boilers are rectangular. Ninety-five percent of the boilers I look at on a weekly basis are rectangular and they're built in the

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United States to ASME code. Anyone that would make that statement, in my opinion, has no idea what he's talking about.

This is a very difficult situation. You're asking for approval of a boiler that's built to standards that are not the same as ASME code. And ASME, the average boiler that I see that's newly installed, say one or two years old, has replaced a 30 year old boiler. These European boilers are designed to last about 10 years. So, yeah, you're going to build, sell a boiler that costs a little less, burns a little better, but it's not going to last as long. Most businesses, if they get the information, are not going to buy these boilers because the payback isn't going to be there.

The other thing I mention in there is the European standard for measurement of particulate matter is different than the standard used in the United States to measure it, so American built boilers, ASME style boilers, come out on a worse basis just because the test system picks up more particulate the way it's done. The efficiency is measured differently, so you get a distorted vision of the efficiency.

The other thing you should realize is that the EN 303-5 standard applies to coal and wood, and there are multiple standards. The standard that talks about being more efficient than American - which by the way, currently isn't true, there are American boilers that are equal to that - is the third class. The way this legislation is worded, you're allowing all classes into this country. You could get a disreputable vendor selling stuff that's dirtier than anything made in the United States that's made to EN 303-5 and you've allowed it in. **See written testimony of Ronald Thomas attached hereto and hereafter referred to as Attachment 3.**

Senator Jacalyn L. Cilley, D. 6: Alright, thank you. Senator Downing, you had a question?

Senator Michael W. Downing, D. 22: Thank you, Madam Chair. If I were to install one of these devices in my commercial building, how would that affect my insurance, I mean, if something happened?

Mr. Thomas: The insurance, the first answer I got from my supervisor was he didn't want to insure it.

Senator Michael W. Downing, D. 22: Well, Madam Chair, if I might?

Senator Jacalyn L. Cilley, D. 6: Follow-up.

Senator Michael W. Downing, D. 22: Follow-up. Right now I have a boiler and it's inspected by the Department of Labor. And it's certified, they sign a form that's there where everybody can see it. But if I have this in there, my insurance company comes in, because they come in and they inspect it. How is that going to affect me as a business?

Mr. Thomas: Your, you should only be inspected by one or the other. The Department of Labor is only supposed to inspect boilers that are not insured. If your boiler, business is covered under a business policy that has boiler and machinery coverage, someone like me is supposed to be doing that inspection. I inspect to the same standards as the State. The difference is, is you've paid for my inspection when you paid your premium.

Senator Michael W. Downing, D. 22: Right.

Mr. Thomas: When the State comes in and does it, you pay them to come and do it and then you pay for the certificate as well. Does that answer your question?

Senator Michael W. Downing, D. 22: Well, sort of. Am I going to get my insurance policy cancelled when you come in and inspect a new boiler that's not meeting this code?

Mr. Thomas: It depends on, it's a hard answer. Personally, I think they should say no, we won't inspect, we won't insure them. But because they're more likely to fail, just because they're not made to last 30 years, they're made to last 10 years. The companies will price to the risk. So an insurance company could well say, yes, we'll insure that, but we need a higher premium. And that could well happen, just as it's happened in healthcare and everything else, is they'll just say, well, we'll cover you but you're going to pay more for it.

Senator Jacalyn L. Cilley, D. 6: Okay. Are there any other questions? Thank you very much. Seeing no other questions. And was there anybody left who didn't speak who thought they were going to speak? Okay, with that I'm going to close the hearing on House Bill 1688.

Hearing concluded at 5:01 p.m.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Catherine S. Mullen".

Catherine S. Mullen
Senate Secretary
4/9/10

3 Attachments

Date: April 6, 2010

RE: HB 1688 Amendment

Written Testimony of Cynthia A. Flynn
Administrator
Inspection Division
New Hampshire Department of Labor

1. The DOL opposes HB 1688; if this Bill passes, the DOL would be responsible for adopting inspection procedures for EN 303-5. The NB provides detailed inspection procedures centered on the ASME code, not EN 303-5. Current inspection procedures are found in the NBIC (National Board Inspection Code), adopted under 157-A; 157-A also requires licensed boiler inspectors to hold National Board Commissions. The training, field work and exams are all done by the National Board before they can come to us for a NH boiler inspector's license; the NB also provides continuing education for the inspectors.
2. At this time this Department is not qualified to perform inspections of boilers built to EN 303-5.
3. The DOL's concern and focus must be on the safety of the public and the liability to the State of NH.
4. While several states have investigated EN303-5, only one has adopted it, which would make New Hampshire ONLY one of two jurisdictions in North America to adopt it.
5. EN303-5 does not provide any standards for repair - a common occurrence. (Presently, ALL repairs shops in New Hampshire are required to be qualified to do repairs by having a National Board "R" stamp.
6. EN303-5 does not require filing of data reports, thereby negating access to important equipment history that sometimes includes a lifespan of nearly one hundred years.
7. EN303-5 is written in metric quantities whereas ASME Section IV includes both metric and western numeric references.
8. EN303-5 latest code book was published in 1999, consequently lacking the very latest technology information. ASME Code is published EVERY THREE YEARS.
9. EN303-5 provides no direction regarding electric control standards. ASME does.

10. EN303-5 provides no direction regarding installation standards.
11. EN303-5 requires metals hard to find and repair.
12. EN303-5 only requires combustion efficiency rating of 79 percent even though today's new oil and gas boast efficiency rates of up to 95 percent.
13. There are several pellet-fired boilers constructed to ASME Code in North America.

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S.293

Introduced by Committee on Economic Development, Housing and General
Affairs

Date:

Subject: Internal security and public safety; prevention and investigation of
fires; boilers and pressure vessels

Statement of purpose: This bill proposes to set standards for the use of boilers
and pressure vessels in the state, including authorizing the use of boilers or
pressure vessels manufactured in accordance with Canadian or European
standards.

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An act relating to state standards for boilers and pressure vessels

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. 20 V.S.A. § 2882 is amended to read:

§ 2882. RULES; INSTALLATION STANDARDS

(a) The commissioner may adopt rules pertaining to boilers and pressure
vessels, and standards to be observed, necessary for the safety and protection
of the public, employees and property. ~~All standards adopted by the
commissioner shall conform to the codes of the American Society of
Mechanical Engineers and the National Board of Boiler and Pressure Vessel~~

1 ~~inspectors.~~ The commissioner may provide for operating certificates to be
2 issued before a boiler or pressure vessel may be used.

3 (b) A boiler or pressure vessel regulated by the rules adopted under this
4 section shall be designed, manufactured, and assembled in accordance with the
5 relevant standards published by the:

6 (1) American Society of Mechanical Engineers;

7 (2) Canadian Standards Association;

8 (3) European Committee for Standardization, for boilers with a
9 maximum water jacket size of 60 gallons, a maximum input of 250,000 Btu,
10 and a maximum relief valve setting of 30 pounds per square inch gauge; or

11 (4) European Committee for Standardization, for boilers or pressure
12 vessels with an input of greater than 250,000 Btu or a water jacket size of
13 greater than 60 gallons as approved by the commissioner.

14 (c) A boiler or pressure vessel regulated by the rules adopted under this
15 section shall be installed in accordance with the National Board Inspection
16 Code, as amended, including control, safety, and pressure relief devices in
17 accordance with the relevant standards published by the American Society of
18 Mechanical Engineers.

19 (d) A boiler or pressure vessel regulated by the rules adopted under this
20 section shall provide the manufacturer's design information, instructions, data
21 plates, and warning labels in English.

1 (e) In reviewing an application for a variance, the commissioner may rely
2 upon decisions or information from other states or governmental entities that
3 have reviewed and approved a boiler or pressure vessel that does not meet one
4 of the standards set forth under subsection (b) of this section.

5 Sec. 2. EFFECTIVE DATE

6 This act shall take effect upon passage.

To: The Senate Executive Departments and Administration Committee

At the joint public hearing on HB1688 held on February 2nd of this year a substantial portion of the time allowed for public input was taken up with a presentation by students from the Rockefeller Center at Dartmouth. Unfortunately, much of their presentation was technically flawed. After their presentation, those present were told that there would not be time to hear detailed technical presentations during the hearing and that such testimony would be heard during the sub-committee hearings that would follow. Because of this admonition most of the errors contained in the presentation were allowed to stand as supposed fact. At the hearing there were at least six professionals who could have corrected those errors, those professionals included two officials from the National Board of Boiler and Pressure Vessel Inspectors both of whom are acknowledged experts on boilers.

On February 8th I attended the first subcommittee hearing for HB1688 with the intention of providing information that would set the record straight. However, Representative McGuire announced at the beginning of the hearing that she intended to take no input concerning the safety of EN 303-5 boilers because she believed their level of safety to have been settled. I was not the only person present who had come to correct the record.

In my search to find the source of the errors in the students' presentation and similar misinformation contained in the report of the committee established under SB98, Chapter 251.1, Laws of 2009, I obtained and read the two documents cited by the students as the source of their information. I found that the vast majority of the errors come from the report supplied to the committee by BioHeatUSA and authored by Roger Reedy, P.E. and Rick Swayne.

I understand that many on this committee do not have either the background or the time for a lengthy discussion of why I feel the report is flawed but I think it can be established how flawed the report is by asking you each to look at two items and take a short walk.

First, note the second sentence of the disclaimer printed on the report's title page, specifically the part that says that the report, "shall not be relied on by any other person". The study committee placed more reliance on this report than on the testimony of multiple professionals who deal with boilers on a daily basis. It appears they also chose to rely on this report more heavily than the one produced to inform the government of Massachusetts concerning the same issue, at least when they made comparisons between the two standards.

Second, please read the paragraph in the report titled "2. Background". In sentence three the authors assert that ASME Section IV does not address

rectangular boilers or solid fuel heating boilers. As a result of this assertion the study committee report states that ASME boilers are cylindrical while European boilers are rectangular. You can judge the veracity of first half of the report's statement by walking to the heating boiler in your home or the home of any neighbor whose home is heated with a boiler (either forced hot water or steam). On either the front or a side of that boiler there will be a label or nameplate bearing the letter H inside a cross shape, on the same label will be information on who certified the boiler, what its MAWP (maximum allowable working pressure) is and what the minimum allowable relief valve capacity is. What you are looking at is proof that your boiler meets the ASME Section IV code, it is there because presently, all New Hampshire codes require that ASME boilers be used in residences and in businesses. If your boiler is like mine and like 90+% of the ones I inspect each week, it is rectangular in shape. It is true, that the ASME boiler codes do not specify the type of fuel used in a boiler however the codes were developed close to a hundred years ago when the primary fuels used in boilers were either coal or wood. Although the codes are periodically updated they were not changed in a manner to make them incompatible with solid fuels. ASME Section IV codes assure that the pressure portion of any heating boiler is safe no matter what fuel it uses for heat.

If you combine the disclaimer on the report's title page with the demonstration that the report authors were not even familiar enough with heating boilers to know that ASME Section IV boilers can indeed be rectangular you will understand why I urge you to not rely on any of the other "facts" included in that report. You may even wonder as I do, how much faith you can put in the authors' claim that they "carefully reviewed" these codes.

I think HB 1688 is fatally flawed, it seeks to meet a legitimate need but those involved in crafting the bill placed too much reliance on a report that told them up front not to rely on it. As pointed out by Dr. Robert Schueler during the public hearing of February second there are significant differences in the safety factors used to build the boilers built to ASME code as opposed to those built to EN 303-5. While both offer safety when originally installed, the more robust ASME standard appears to me to offer safety over the long period of time that New Hampshire businesses and residents expect from their heating equipment to last while EN 303-5 units are not designed to last that long.

Further, there are significant differences in the method used to calculate the efficiency of heating appliances in the United States when compared to the method designated under EN 303-5. I believe that anyone reading the method dictated by the Federal Trade Commission for determining the efficiency of central heating appliances, called the AFUE, will immediately understand the method must result in a significantly lower rating than the result found

using method called for under EN 303-5. The AFUE takes into account the cyclic on/off operation and associated energy losses of the heating unit as it responds to changes in the load, the EN 303-5 method measures efficiency at set firing rates. As the other study cited by in the Dartmouth students presentation explains, the methods used to measure the emissions of small heating boilers in the United States also varies significantly from the method used under EN 303-5. I would suggest that this second study, which was not financed by a stake holder in the issue but was instead produced for the State of Massachusetts is more likely to give information that can be relied on. You will find that its conclusions vary significantly from those of last year's legislative study committee. In fact when the state of Massachusetts regulatory board considered the same issue they chose not to modify their safety codes to allow boilers manufactured to EN 303-5.

Respectfully,

A handwritten signature in cursive script that reads "Ronald E. Thomas".

Ronald E. Thomas
Risk Engineering Consultant
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Speakers

Voting Sheets

Senate ED&A Committee

EXECUTIVE SESSION

Bill # HB 1688

Hearing date: 4-6-10

Executive session date: 4-13-10

Motion of: OTP/A

VOTE: 4-0

<u>Made by</u>	Cilley <input type="checkbox"/>	<u>Seconded</u>	Cilley <input type="checkbox"/>	<u>Reported</u>	Cilley <input type="checkbox"/>
<u>Senator:</u>	Fuller Clark <input checked="" type="checkbox"/>	<u>by Senator:</u>	Fuller Clark <input type="checkbox"/>	<u>by Senator:</u>	Fuller Clark <input type="checkbox"/>
	DeVries <input type="checkbox"/>		DeVries <input checked="" type="checkbox"/>		DeVries <input type="checkbox"/>
	Downing <input type="checkbox"/>		Downing <input type="checkbox"/>		Downing <input type="checkbox"/>
	Carson <input type="checkbox"/>		Carson <input checked="" type="checkbox"/>		Carson <input type="checkbox"/>

Motion of: Comm amend

VOTE: 4-0

<u>Made by</u>	Cilley <input type="checkbox"/>	<u>Seconded</u>	Cilley <input type="checkbox"/>	<u>Reported</u>	Cilley <input type="checkbox"/>
<u>Senator:</u>	Fuller Clark <input type="checkbox"/>	<u>by Senator:</u>	Fuller Clark <input checked="" type="checkbox"/>	<u>by Senator:</u>	Fuller Clark <input type="checkbox"/>
	DeVries <input checked="" type="checkbox"/>		DeVries <input type="checkbox"/>		DeVries <input type="checkbox"/>
	Downing <input type="checkbox"/>		Downing <input type="checkbox"/>		Downing <input type="checkbox"/>
	Carson <input type="checkbox"/>		Carson <input type="checkbox"/>		Carson <input type="checkbox"/>

<u>Committee Member</u>	<u>Present</u>	<u>Yes</u>	<u>No</u>	<u>Reported out by</u>
Senator Cilley, Chairman	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Senator Fuller Clark, Vice-Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator DeVries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Downing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Carson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Amendments: OTP MFC 1st moved
SC 2nd

Notes: _____

Committee Report

STATE OF NEW HAMPSHIRE
SENATE
REPORT OF THE COMMITTEE

Date: April 13, 2010

THE COMMITTEE ON Executive Departments and Administration
to which was referred House Bill 1688-FN

AN ACT relative to the regulation of the installation and operation
 of boiler and pressure vessels.

Having considered the same, the committee recommends that the Bill:

OUGHT TO PASS WITH AMENDMENT

BY A VOTE OF: 4-0

AMENDMENT # 1385s

Senator Jacalyn L. Cilley
For the Committee

Cathy Mullen 271-3067

New Hampshire General Court - Bill Status System

Docket of HB1688

Docket Abbreviations

Bill Title: relative to the regulation of the installation and operation of boiler and pressure vessels.*Official Docket of HB1688:*

Date	Body	Description
01/06/2010	H	Introduced and Referred to Executive Departments and Administration; HJ 6 , PG.248
01/26/2010	H	Public Hearing: 2/2/2010 1:30 PM LOB 305-307 (Joint with Science, Technology & Energy Committee)
02/02/2010	H	Subcommittee Work Session: 2/8/2010 9:30 AM LOB 306
02/02/2010	H	Subcommittee Work Session: 2/9/2010 3:00 PM LOB 306
02/02/2010	H	Subcommittee Work Session: 2/16/2010 9:00 AM LOB 308
02/10/2010	H	Executive Session: 2/16/2010 10:30 AM LOB 306
02/17/2010	H	Committee Report: Ought to Pass with Amendment #0561h for Mar 3 RC (Vote 15-1); HC 17 , PG.821
02/17/2010	H	Proposed Committee Amendment #0561h; HC 17 , PG.923
03/03/2010	H	Amendment #0561h Adopted, VV; HJ 20 , PG.1166-1167
03/03/2010	H	Ought to Pass with Amendment #0561h: MA VV; HJ 20 , PG.1166-1167
03/24/2010	S	Introduced and Referred to Executive Departments and Administration; SJ 11 , Pg.265
03/31/2010	S	Hearing: April 6, 2010, Room 101, LOB, 3:00 p.m.; SC14
04/15/2010	S	Committee Report: Ought to Pass with Amendment 1385s, 4/21/10; SC16
04/21/2010	S	Committee Amendment 1385s, AA, VV; SJ 15 , Pg.317
04/21/2010	S	Ought to Pass with Amendment 1385s, MA, VV; OT3rdg; SJ 15 , Pg.317
04/21/2010	S	Passed by Thrd Reading Resolution; SJ 15 , Pg.325
05/19/2010	H	House Concurs with Senate AM #1385s (Rep Harding): MA VV; HJ 46 , PG.2226
06/02/2010	H	Enrolled
06/02/2010	S	Enrolled; SJ 21 , Pg.779
07/21/2010	H	Signed by the Governor 07/20/2010; Effective: 09/18/2010; Chapter 0326

NH House

NH Senate

Contact Us

New Hampshire General Court Information Systems
 107 North Main Street - State House Room 31, Concord NH 03301

Other Referrals

COMMITTEE REPORT FILE INVENTORY

HB 1688-FN ORIGINAL REFERRAL

_____ RE-REFERRAL

1. THIS INVENTORY IS TO BE SIGNED AND DATED BY THE COMMITTEE SECRETARY AND PLACED INSIDE THE FOLDER AS THE FIRST ITEM IN THE COMMITTEE FILE.
2. PLACE ALL DOCUMENTS IN THE FOLDER FOLLOWING THE INVENTORY IN THE ORDER LISTED.
3. THE DOCUMENTS WHICH HAVE AN "X" BESIDE THEM ARE CONFIRMED AS BEING IN THE FOLDER.
4. THE COMPLETED FILE IS THEN DELIVERED TO THE CALENDAR CLERK.

DOCKET (Submit only the latest docket found in Bill Status)

COMMITTEE REPORT

CALENDAR NOTICE on which you have taken attendance

HEARING REPORT (written summary of hearing testimony)

HEARING TRANSCRIPT (verbatim transcript of hearing)

List attachments (testimony and submissions which are part of the transcript) by number [1 thru 4 or 1, 2, 3, 4] here: 1, 2, 3

SIGN-UP SHEET (2)

ALL AMENDMENTS (passed or not) CONSIDERED BY COMMITTEE:

- AMENDMENT # 1385 _____ - AMENDMENT # _____
_____ - AMENDMENT # _____ _____ - AMENDMENT # _____

ALL AVAILABLE VERSIONS OF THE BILL:

AS INTRODUCED AS AMENDED BY THE HOUSE
 FINAL VERSION _____ AS AMENDED BY THE SENATE

_____ PREPARED TESTIMONY AND OTHER SUBMISSIONS (Which are not part of the transcript)

List by letter [a thru g or a, b, c, d] here: _____

EXECUTIVE SESSION REPORT

_____ OTHER (Anything else deemed important but not listed above, such as amended fiscal notes):

IF YOU HAVE A RE-REFERRED BILL, YOU ARE GOING TO MAKE UP A DUPLICATE FILE FOLDER

DATE DELIVERED TO SENATE CLERK

9-14-10

Catherine S. Muller
COMMITTEE SECRETARY