



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF LABOR AND INDUSTRY

C. Ray Davenport  
COMMISSIONER

Main Street Centre  
600 East Main Street, Suite 207  
Richmond, Virginia 23219  
PHONE (804) 371-2327  
FAX (804) 371-6524

### AGENDA

#### SAFETY AND HEALTH CODES BOARD

Main Street Centre  
600 East Main Street  
12<sup>th</sup> Floor Conference Room - South  
Richmond, Virginia

Thursday, November 30, 2017

10:00 a.m.

1. Call to Order
2. Approval of Agenda
3. Approval of Minutes for Board Meeting of July 27, 2017 and Public Hearing of October 26, 2017
4. Opportunity for the Public to Address the Board on these issues pending before the Board today or on any other topics that may be of concern to the Board or within the scope of authority of the Board.

*This will be the only opportunity for public comment at this meeting. Please limit remarks to 5 minutes in consideration of others wishing to address the Board.*

5. **Old Business**

- a) Final Regulatory Action to Amend 16VAC25-50, Boiler and Pressure Vessel Rules and Regulations

*Presenter – Ed Hilton*

- b) 16VAC25-60, *et seq.*, Final Amendments to the Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program; State and Local Government Penalties

*Presenter – Jay Withrow*

6. **New Business**

Federal-identical Regulations:

- a) Occupational Exposure to Beryllium for the Shipyard Industry (Part 1915) and the Construction Industry (Part 1926); Delay of Compliance Date

*Presenter – Ron Graham*

7. Items of Interest from the Department of Labor and Industry

8. Items of Interest from Members of the Board

9. Meeting Adjournment

**DRAFT**  
**SAFETY AND HEALTH CODES BOARD**  
**PUBLIC HEARING AND MEETING MINUTES**  
**THURSDAY, July 27, 2017**

**BOARD MEMBERS PRESENT:** Mr. John Fulton  
Mr. Chris Gordon  
Mr. Courtney Malveaux  
Mr. David Martinez, New Vice Chair  
Mr. Travis Parsons, New Chair  
Mr. Kenneth Richardson, II  
Ms. Milagro Rodriguez,  
Mr. Chuck Stiff, Outgoing Chair  
Mr. Tommy Thurston

**BOARD MEMBERS ABSENT:** Mr. Jerome Brooks  
Mr. Lou Cernak, Jr., Outgoing Vice Chair  
Ms. Anna Jolly

**STAFF PRESENT:** Mr. C. Ray Davenport, Commissioner of Dept. of Labor & Industry  
Mr. Bill Burge, Assistant Commissioner  
Mr. Jay Withrow, Director, Legal Support, BLS, VPP, ORA, OPP & OWP  
Mr. Ed Hilton, Director, Boiler Safety Compliance Management  
Mr. Ron Graham, Director, VOSH Health Compliance  
Mr. Warren Rice, Director, Consultation Services  
Mr. John Crisanti, Manager, Office of Policy and Planning  
Ms. Holly Raney, Regulatory Coordinator  
Ms. Regina Cobb, Senior Management Analyst  
Ms. Deonna Hargrove, Richmond Regional Health Director  
Ms. Monica Vanney, DHRM/LCI

**OTHERS PRESENT:** Ms. Lisa Wright, Court Reporter, Chandler & Halasz, Stenographic Court Reporters  
Joshua E. Laws, Esq., Assistant Attorney General, OAG

**PUBLIC HEARING**

Board Chair, Mr. Chuck Stiff, called the Public Hearing to order at 10:00 a.m. A quorum was present. He explained that the sole purpose of the hearing was for the Board to receive comments from the public regarding the Proposed Regulatory Action to Amend 16VAC25-50, Boiler and Pressure Vessel Rules and Regulations. Next, he invited anyone who wished to speak to address the Board.

Although there were no comments for the public, Mr. Hilton, Director, Boiler Safety Compliance for the Department, addressed the Board concerning the various revisions to the Boiler and Pressure Rules and Regulations. He explained the various revisions to the Boiler and Pressure Rules and Regulations were suggested by the Department of Legislative Services to improve the clarity of these regulations. Then Mr. Stiff adjourned the Public Hearing at 10:05 a.m.

## BOARD MEETING

Immediately following the Public Hearing, Mr. Stiff called to order the Safety and Health Codes Board meeting at 10:06 a.m. A quorum was present.

### ORDERING OF AGENDA

Mr. Stiff requested a motion to approve the Agenda. A motion to accept the Agenda was made and properly seconded. The Agenda was approved, as submitted, and the motion was carried by unanimous voice vote.

### APPROVAL OF MINUTES

Mr. Stiff asked the Board for a motion to approve the Minutes from the February 16, 2017 Board meeting. The motion was made and properly seconded. The Minutes were approved by unanimous voice vote.

### ELECTION

Mr. Stiff stated that generally the Board switches back and forth between labor and management representatives. He announced that at the next meeting the new Chair would then appoint a Secretary. Next, he requested nominations for a new Chair. Mr. Travis Parsons was nominated. There were no other nominees. By unanimous voice vote, Mr. Parsons was elected as Board Chair.

Next, Mr. Stiff asked for nominations for Vice Chair. Mr. David Martinez was nominated. There were no other nominees. By unanimous voice vote, Mr. Martinez was elected as Board Vice Chair. Mr. Parsons permitted Mr. Stiff to continue presiding over this meeting.

### PUBLIC COMMENTS

Mr. Stiff opened the floor for comments from the public, however, there were no comments.

### OLD BUSINESS

#### ***16VAC25-60, et seq., Final Regulation to Amend the Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program, Miscellaneous Changes***

Mr. Withrow began by requesting that the Board consider for adoption, as a final regulation of the Board, language to amend 16 VAC25-60, et seq., Administrative Regulation for the VOSH Program, (Enforcement of VDOT's MUTCD; Clarification of Anti-retaliation Safeguards for Public Sector Employees, etc.).

He refreshed the Board's memory about the rulemaking process of this regulation, which started with a Notice of Intended Regulatory Action, adopted by the Board on October 29, 2015, and published in the Virginia Register on December 28, 2015, with a 30-day comment period ending on January 27, 2016.



He continued by stating that the Board adopted the proposed regulation on March 3, 2016, which was published on November 28, 2016, with a 60- day comment period and a public hearing. He added that no comments were received during that comment process.

He informed the Board that the only changes from the final briefing package from the proposed package are some additional language (highlighted) that was added for clarification on the FOIA provisions regarding VPP.

Mr. Withrow called the Board's attention to items allowing VOSH to enforce the Virginia Department of Transportation Work Area Protection Manual, which is based on the federal OSHA regulation. This regulation will allow the Department to be a little more stringent than federal OSHA and it will help VDOT to enforce their contracts and make sure that the employees are safe. This is important for VDOT because when VDOT has a contract breach, there is a whole legal process that it must go through to get to clients. A citation can get things done much quicker than to get an abatement to occur.

Next, Mr. Withrow addressed the clarification of a little conflict in the Department's regulation about whistleblower having to do with the Commissioner's authority to litigate a whistleblower case if the Department cannot settle it in the public sector. He noted that state agencies do not go to court against local government agencies or political subdivisions.

The third item Mr. Withrow discussed was just making sure that §40.1-7 of the *Code of Virginia* applies to public employers and that §40.1-7 of the Code of Virginia says the Commonwealth's Attorneys can represent the Commissioner when litigation is necessary.

Mr. Withrow's fourth item dealt with regulatory language concerning how to resolve a failure to abate issue with a state agency. He informed the Board that there are a variety of ways to settle things.

His fifth item specifically addressed the Freedom of Information Act provisions for the Virginia Voluntary Protection Program (VPP). VPP files will be treated in the same way as a VOSH enforcement case file.

In item 6, he stated that there was a change of the term "anti-discrimination" to "whistleblower" since federal OSHA refers to the program as "Whistleblower."

Item 7 clarifies that if the Department litigates a whistleblower case, the statute provides the court with the ability to restrain violations and issue penalties appropriately. He added that money received from penalties issued would go directly to the employee; not the Department or the Commonwealth.

Item 8 clarifies the Commissioner's authority to take and preserve testimony, examine witnesses, and administer oaths, constitutes an administrative subpoena power.

He stated that items 9 and 10 are placing into regulation rulings from case law.

Regarding impact of these amendments, Mr. Withrow stated that there is impact on Item 1 because employers could be subject to citation and penalty; however, they are required by contract to comply. Any costs for correction are already required under the contract, and the only additional impact would be the possibility of a penalty if they are not complying.

He informed the Board that Items 2 through 6 did not have any additional impacts. Item 7, which was the ability of the Commissioner to ask for penalties at the litigation stage of a whistleblower case would be affected as a financial burden to the employer. He added that the Department averages litigating one whistleblower case a year or less.

He concluded by recommending that the Board consider for adoption, as a final regulation of the Board, the final amendments to 16VAC25-60, *et seq.*, Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program, Miscellaneous Changes, in accordance with the authority of the Board under §40.1-22(5) and the requirements of the Administrative Process Act, §2.2-4000, *et. seq.*

A motion to accept the Department's recommendation was made and properly accepted. The motion was approved by voice vote, with Mr. Malveaux abstaining.

### ***16VAC25-200, Final Regulation on Virginia Voluntary Protection Programs (VPP)***

Mr. Withrow began by requesting that the Board consider for adoption, as a final regulation of the Board, 16VAC25-200, Virginia Voluntary Protection Program (VPP).

Mr. Withrow reminded the Board of the rulemaking process for this regulation. The Notice of Intended Regulatory Action (NOIRA) was adopted by the Board on October 29, 2015, which was actually in response to a statute adopted by the General Assembly which codified the Virginia Voluntary Protection Program in July 2015. He continued by stating that the NOIRA was published on December 28, 2015, with a 30-day comment period ending on January 27, 2016. No comments were received. The Board adopted the proposed regulation on March 3, 2016. The proposed regulation was published on December 12, 2016, with a 60-day comment period ending on February 16, 2017. Again, no comments were received during the comment period.

Mr. Withrow informed the Board of the four categories of changes – some are more administrative and not substantive. He explained that, when the Department submitted the proposed regulation to the Department of Planning and Budget (DPB), DPB suggested that the Department contact the Register of Regulations for consistency in regulations, language used, etc. DPB identified a number of issues with the VPP regulation, for example: substituting "Department" for "Agency"; requested definitions for the terms: "Challenge" and "VOSH"; reference to "Small Business" was deleted because that term was not used in the VPP regulation; a definition for "nested contractor" was added.

He continued by stating that some changes were recommended by the Department, e.g., adding definitions for "Applicant", "Commissioner of Labor and Industry", and "Participant". The word "employer" was substituted in a number of places for "company" since the VPP regulation will apply to state and local government agencies.

Mr. Withrow referred to the Board to page 4 of the briefing package which lists the issues the final regulation addresses.

He informed the Board that the VPP sites nationally have averaged injury and illness rates that are 50 percent below the national average, and in Virginia, injury and illness rates average about 60 percent below the national average. He noted that there is spending associated with the regulation; it's a voluntary program; and there are significant benefits to the company as well.

He stated that the Department only takes VPP applications in which the Department is about 98 percent of approval.

With respect to impact on the Department, Mr. Withrow stated that the Department was successful in going to the General Assembly this year and getting three more positions for VPP, along with three consultation positions which have a significant impact on the Department. He added that the Department is making significant efforts to expand the use of VPP, both in construction and general industry.

With respect to employees, Mr. Withrow stated that the Department believes that VPP has a great impact on employees in that there are fewer injuries, illnesses, and fatalities. He added that the core element of VPP is to develop a really good safety and health management system with employee involvement in developing it and running it. Employees will have a direct say in safety and health. It's a "win-win" for everybody.

Mr. Withrow concluded by recommending that the Board consider for adoption as a final regulation of the Board 16VAC25-200, Virginia Voluntary Protection Program, in accordance with the authority of the Board under §40.1-22(5) and the requirements of the Administrative Process Act, §2.2-4000.

A motion to accept the Department's recommendation was made and properly accepted. The motion was approved by voice vote, with Courtney Malveaux abstaining.

## **NEW BUSINESS**

### ***Report on Periodic Review of Certain Existing Regulations***

Ms. Holly Raney, Regulatory Coordinator for the Department of Labor and Industry, informed the Board of the five regulations that were identified for review in 2017, in accordance with the Administrative Process Act (§2.2-4017 of the *Code of Virginia*) and Governor McAuliffe's Executive Order 17 (2014).

The regulations for review are as follows:

1. 16VAC25-20, Regulation Concerning Licensed Asbestos Contractor Notification, Asbestos Project Permits, and Permit Fees
2. 16VAC25-30, Regulations for Asbestos Emissions Standards for Demolition and Renovation Construction Activities and the Disposal of Asbestos-Containing Construction Waste – Incorporation by Reference, 40 CFR 61.140 through 61.156;
3. 16VAC25-40, Standard for Boiler and Pressure Vessel Operator Certification;
4. 16VAC25-70, Virginia Confined Space Standard for the Telecommunications Industry; and
5. 16VAC25-97, Reverse Signal Procedures – General Industry – Vehicles/Equipment Not Covered by Existing Standards

Ms. Raney explained that, following the Board's February 16, 2017 approval, the periodic review process for the regulations began with publication of a Notice of Periodic Review in the *Virginia Register*, which began a public comment period of at least 21 days, but not longer than 90 days. She added that the public comment period began on March 20, 2017 and closed on April 14, 2017, with no comments being received for any of these regulations during the public comment period.

During her presentation, Ms. Raney discussed the Review and Analysis for each regulation undergoing review and the factors that were required to be considered:

- The continued need for the regulation;
- The complexity of the regulation;
- The extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and
- The length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation.

After discussing each factor for consideration for each regulation, Ms. Raney concluded by recommending, on behalf of the Department, that the Board vote to retain all five regulations “as is” with no changes.

A motion to accept the Department’s recommendation was properly made and seconded. The recommendation was approved unanimously by voice vote.

#### **Items of Interest from the Department of Labor and Industry**

Mr. Withrow informed the Board that they would be receiving an invitation through “ticketbud” to the VPP Machine Guarding Best Practice Day, hosted by Goodyear Tire & Rubber Co. on September 13, 2017 at The Institute for Advanced Learning and Research in Danville, VA.

Commissioner Ray Davenport began by reminding the Board of federal OSHA’s increased maximum penalty, effective since August 2016, and that State Plans must be at least as effective as federal OSHA. He stated that VOSH penalties are incorporated by statute in the *Code of Virginia*. He stated that, during the 2017 General Assembly session, the increase in maximum penalties was adopted by the General Assembly and signed by the governor, with the maximum penalty increasing from \$7,000 to \$12,471 for other-than-serious and failure to abate violations. The maximum penalty for willful violations will increase from \$70,000 to \$124,709, effective on July 1, 2017. He stated that the Department met with its stakeholders to explain the penalty increase and to make them aware of the changes even prior to the General Assembly session.

Commissioner Davenport also informed the Board that on April 6, 2017, OSHA’s delayed enforcement of the federal Silica standard for construction. The Board adopted a federal-identical version of the Silica standard on September 13, 2016; however, VOSH did not delay enforcement of its standard because of the short notice of this delay by OSHA and the Town Hall regulatory requirements. He stated that the Department did not think it was a good idea to enforce the standard, and then not enforce the standard.

Because of the delay of the federal OSHA regulation, an effective date for the construction standard is June 23, 2017. He added that VOSH’s use of the National Emphasis Program (NEP) for the Silica Standard in Construction has been suspended on any case inspections opened on or after June 23, 2017. The suspension will await the pending revision and reflect the adoption of the new Silica standard on the federal level. VOSH will continue to respond to silica-related employee complaints, referrals, and situations where the potential exposure to silica in Construction is observed in plain view of VOSH personnel.

Commissioner Davenport reiterated that, during the 2017 General Assembly session, Gov. McAuliffe and the General Assembly provided \$650,000 of additional funding for three consultants and three VPP coordinators. He added that the Department was not successful on the compliance side of the House. He continues to be concerned about the twelve unfunded compliance officer vacancies on the compliance side.

He thanked Brett Bassie of the VMA and the Virginia AFL-CIO, Chuck Stiff, among others that came out in support of the funding which became effective on July 1, 2017.

Commissioner Davenport informed the Board that OSHA uses statistics to show nationally that there is one compliance officer for every 59,000 workers. In Virginia, he said the ration is approximately one compliance officer per 80,000 workers.

Commissioner Davenport stated that year- to-date VOSH has investigated 19 fatalities, and that seven of those fatalities occurred during the month of July.

Mr. Stiff asked about the effectiveness of the Reverse Signal unique standard. Commissioner Davenport responded that there is no activity that he's aware of regarding adopting the reverse signal standard on the federal level. Mr. Withrow added that OSHA has sent out a request for information regarding the Reverse Signal regulation. He also stated that the Reverse Signal regulation cut the Virginia fatality rate by at least 50 percent.

Mr. Withrow, then again addressed the settlement penalty phase. He said that failure to abate and other-than-serious violations went from \$7,000 up to \$12,000, and that serious and other- than-serious went from \$7,000 up to \$12,000. He continued by stating that failure to abate amount did not change.\*

Lastly, Commissioner Davenport thanked the Board for their time commitments.

#### **Items of Interest from the Department or from the Board**

Mr. Stiff recognized the Department staff for their work in making these meeting run smoothly.

#### **Adjournment**

There being no further business, a motion was properly made and seconded to adjourn the meeting. The motion was carried unanimously by voice vote. The meeting adjourned at 11:13 a.m.

\* Following the adjournment of the meeting, Mr. Withrow realized that he had mistakenly stated to the Board, during the Board meeting, that the new VOSH penalty increase that took effect on July 1, 2017 **did not** affect VOSH "failure to abate" penalty levels. He stated that the penalty did change VOSH failure to abate penalty levels, and added the following chart with the correct amounts:

<b>Violation Type</b>	<b>Old</b>	<b>New</b>
Serious	\$ 7,000	\$12,471
Other-than-serious	\$ 7,000	\$12,471
Repeat	\$70,000	\$124,709
Willful	\$70,000	\$124,709
Failure to Abate	\$ 7,000	\$124,471

**DRAFT**

**DEPARTMENT OF LABOR AND INDUSTRY**

**ON BEHALF OF**

**THE SAFETY AND HEALTH CODES BOARD**

**PUBLIC HEARING MINUTES**

**THURSDAY, October 26, 2017**

**BOARD MEMBERS PRESENT:** Not Required  
Ms. Anna Jolly

**STAFF PRESENT:** Mr. C. Ray Davenport, Commissioner, Department of Labor & Industry  
Mr. Bill Burge, Assistant Commissioner  
Ms. Regina Cobb, Senior Management Analyst  
Mr. John Crisanti, Manager, Office of Policy and Planning  
Mr. Robert Feild, Senior Staff Attorney

**OTHERS PRESENT:** Mr. Scott Kalis, Occupational Safety & Health Manager, City of Virginia Beach  
Ms. Lisa A. Wright, Court Reporter, Chandler & Halasz, Stenographic Court Reporters

On behalf of the Department of Labor and Industry, Ms. Regina Cobb, Senior Management Analyst, called the Public Hearing to order at 10:00 a.m. to receive public comments on the Safety and Health Codes Board's Proposed Amendments to the Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program; State and Local Government Penalties, 16VAC25-60, *et. seq.*

Ms. Cobb then explained that the sole purpose of the hearing was for the Department, on behalf of the Board, to take comments from the public regarding the Board's Proposed Amendments to the Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program; State and Local Government Penalties, 16VAC25-60, *et. seq.*

There was one speaker who appeared to present comments - Mr. Scott Kalis, Occupational Safety and Health Manager, City of Virginia Beach, VA. Mr. Kalis asked that language be included in this proposed Va. Code amendment to include a penalty reduction system similar to the current program in place for application with private businesses, and that public entities be allowed the same manner of consideration when determining final penalty assessments and recording of citations, where appropriate.

Ms. Cobb thanked Mr. Kalis for his comments and adjourned the hearing at 10:30 a.m.





**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF LABOR AND INDUSTRY**

**C. Ray Davenport**  
COMMISSIONER

Main Street Centre  
600 East Main Street, Suite 207  
Richmond, Virginia 23219  
PHONE (804) 371-2327  
FAX (804) 371-6524

**VIRGINIA SAFETY AND HEALTH CODES BOARD**

**BRIEFING PACKAGE**

**November 30, 2017**

-----

**Final Regulatory Action to Amend  
16 VAC 25-50, Boiler and Pressure Vessel Rules and Regulations**

**I. Action Requested**

The Boiler Safety Compliance Program of the Virginia Department of Labor and Industry requests the Safety and Health Codes Board to consider for adoption as a final regulation of the Board amendments to 16VAC25-50, Boiler and Pressure Vessel Rules and Regulations, pursuant to §40.1-51.6 of the *Code of Virginia*.

**II. Summary of the Final Amendments.**

The final regulation seeks to amend the Boiler and Pressure Vessel Rules and Regulations by defining additional terms for improved clarity. The terms defined, which appear in 16VAC25-50-10, include the following: "ANSI/ASME CSD-1"; "API-510"; ASME B31.1"; "ASME Code"; "Current edition of the ASME Code"; and "National Fire Protection No.85". Amendments also include updating to the most recent editions of the following "Forms" and "Documents Incorporated by Reference" (DIBR), as listed below:

**Forms (16VAC 25-50)**

Form R-1, Report of Repair, National Board Inspection Code NB-66 (~~rev. 2012~~) (rev.13 6/25/15);

Form R-2, Report of Alteration, National Board Inspection Code (~~eff. 1/1/99~~) NB-229 (rev.7 11/12/15);



Form R-3, Report of Parts Fabricated By Welding, National Board Inspection Code (~~eff. 1/1/99~~) NB-230 (Rev.3 9/24/15); and

Form R-4, Report Supplementary Sheet, National Board Inspection Code (~~eff. 1/1/99~~) NB-231 (9/23/15).

**Documents Incorporated by Reference (16VAC 25-50)**

1. ~~2007~~ 2015 Boiler and Pressure Vessel Code, ASME Code, American Society of Mechanical Engineers;
2. ANSI/NB 23, ~~2007~~ 2015 National Board Inspection Code, National Board of Boiler and Pressure Vessel Inspectors;
3. ASME Code B 31.1, ASME Code for Pressure Piping, American National Standards Institute, ~~2007~~ 2014;
5. NFPA 85 Boiler and Combustion Systems Hazards, ~~2001 Edition~~ 2015 Edition, National Fire Protection Association;
6. Part CG (General), Part CW (Steam and Waterside Control) and Part CF (Combustion Side Control) Flame Safeguard of ANSI/ASME CSD-1, Controls and Safety Devices for Automatically Fired Boilers, ~~2009~~ 2012, American Society of Mechanical Engineers; and
7. API 510, Pressure Vessel Inspection Code, Maintenance Inspection, Rating, Repair and Alteration, ~~Ninth Edition~~ Tenth Edition, ~~June 2006~~ May 2014, American Petroleum Institute.

**III. Basis and Purpose of Intended Regulatory Action**

**A. Basis**

The Safety and Health Codes Board is authorized by Title 40.1-51.6.A. of the *Code of Virginia* to:

“...formulate definitions, rules, regulations and standards which shall be designed for the protection of human life and property from the unsafe or dangerous construction, installation, inspection, operation, maintenance and repair of boilers and pressure vessels in this Commonwealth.”

**B. Purpose**

The purpose of the final regulatory action is to conform to the most current editions of the ASME, NBIC, and NFPA safety and inspection codes, as noted in Section II of this briefing package.

**IV. Impact on Employers, Employees and the Department**

**A. Impact on Employers**

For the most part, there would be little impact on employers as a result of the American Society Mechanical Engineers (ASME), National Board Inspection Code (NBIC), and National Fire Protection Association (NFPA) code updates. Companies that utilize the ASME or NBIC codes for construction or repair are already required to have and work to the current editions of these codes; therefore, there is no financial burden for them to purchase the most recent editions. The major change would be the requirement in the NBIC for signage and metering for CO<sub>2</sub> tank installations.

**B. Impact on Employees**

No negative impact is anticipated on employees as a result of the final regulatory changes. For employees working in, and citizens visiting, the restaurant, fast food, and convenience store industry utilizing CO<sub>2</sub> tanks for beverage dispensers, there will be additional safety added by the requirement for CO<sub>2</sub> metering/alarms.

**C. Impact on the Department of Labor and Industry**

Any impact on the Department would be minimal as the Department already has copies of, and already follows, the most recent editions of the NBIC and ASME when performing reviews of manufacturers and repair shops. As noted in subsection IV.A., above, such firms are required to use the most recent code edition.

**V. Comments Received During Public Comment Period**

The Boiler Safety Compliance Program of the Virginia Department of Labor and Industry received no comments during the July 27, 2017 through September 22, 2017 proposed stage public comment period.

**Contact Person:**

Mr. Ed Hilton  
Director, Boiler Safety Compliance  
(804) 786-3262  
[Ed.Hilton@doli.virginia.gov](mailto:Ed.Hilton@doli.virginia.gov)

### RECOMMENDED ACTION

The Boiler Safety Compliance Program recommends that the Safety and Health Codes Board adopt the amendments to 16 VAC 25-50, Boiler and Pressure Rules and Regulation, as a final regulation of the Board, as authorized by §40.1-51.6 of the *Code of Virginia*.

The Department also recommends that the Board state in any motion it may make to amend this regulation that it will receive, consider and respond to petitions by any interested person with respect to reconsideration or revision of this or any other regulation.

**16 VAC 25-50, Proposed Regulation to Amend the Boiler and Pressure Vessel  
Rules and Regulations**

As Adopted by the  
Safety and Health Codes Board

Date: \_\_\_\_\_



Part I  
Definitions

**16VAC25-50-10. Definitions.**

The following words and terms when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise:

"Act" means the Boiler and Pressure Vessel Safety Act, Chapter 3.1 (§ 40.1-51.5 et seq.) of Title 40.1 of the Code of Virginia.

"Alteration" means any change in the item described on the original Manufacturers' Data Report which affects the pressure containing capability of the boiler or pressure vessel. Non-physical changes, such as an increase in the maximum allowable working pressure (internal or external) or design temperature of a boiler or pressure vessel, shall be considered an alteration. A reduction in minimum temperature such that additional mechanical tests are required shall also be considered an alteration.

"ANSI/ASME CSD-1" means ASME CSD-1-2012, Controls and Safety Devices for Automatically Fired Boilers, 2012 Edition, American Society of Mechanical Engineers.

"API-510" means API-510, Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair, and Alteration, Tenth Edition, May 2014, American Petroleum Institute.

"Approved" means acceptable to the board, commissioner or chief inspector as applicable.

"ASME B31" means ASME B31.1-2014, Power Piping, an International Piping Code, The American Society of Mechanical Engineers.

"ASME Code" means the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers ~~approved and adopted by the governing council of such society and approved and adopted by the board.~~

"Authorized inspection agency" means one of the following:

- a. A department or division established by a state, commonwealth or municipality of the United States, or a province of Canada, which has adopted one or more sections of the ~~Boiler and Pressure Vessel Code of the ASME Code~~ and whose inspectors hold valid commissions with the National Board of Boiler and Pressure Vessel Inspectors; or equivalent qualifications as defined and set forth in 16VAC25-50-50 and 16VAC25-50-70;
- b. An inspection agency of an insurance company which is authorized (licensed) to write boiler and pressure vessel insurance in those jurisdictions which have examined the agency's inspectors to represent such jurisdictions as is evident by the issuance of a valid certificate of competency to the inspector;
- c. An owner-user inspection agency as defined in this section; or
- d. A contract fee inspector.

"Board" means the Virginia Safety and Health Codes Board.

"Boiler" means a closed vessel in which water is heated, steam is generated, steam is superheated, or any combination of them, under pressure or vacuum for use externally to itself by the direct application of heat. The term "boiler" shall include fired units for heating or vaporizing liquids other than water where these units are separate from processing systems and are complete within themselves.

"Certificate of competency" means a certificate issued by the commissioner to a person who has passed the prescribed examination as provided in 16VAC25-50-50. See §§ 40.1-51.9 and ~~40.1-51.9:1~~ 40.1-51.9:1 of the Act.

"Certificate inspection" means an inspection, the report of which is used by the chief inspector to decide whether or not a certificate, as provided for in § 40.1-51.10 of the Act may be issued. This certificate inspection shall be an internal inspection when required; otherwise, it shall be as complete an inspection as possible.

"Chief inspector" means the chief boiler and pressure vessel inspector of the Commonwealth.

"Commission, National Board" means the commission issued by the National Board to a holder of a Certificate of Competency for the purpose of conducting inspections in the Commonwealth in accordance with ~~the National Board Bylaws~~ and this chapter. The employer must submit the inspector's application to the National Board for a commission.

"Commissioner" means the Commissioner of the Department of Labor and Industry.

"Commonwealth inspector" means any agent appointed by the commissioner under the provisions of § 40.1-51.9 of the Act.

"Condemned boiler or pressure vessel" means a boiler or pressure vessel that has been inspected and declared unsafe for use or disqualified by legal requirements and to which a stamping or marking designating its condemnation has been applied by the chief or commonwealth inspector.

"Current edition of the ASME Code" means the 2015 Edition of the ASME Code, which has been adopted by the Safety and Health Codes Board.

"Department" means the Department of Labor and Industry.

"Division" means the Boiler Safety Enforcement Division of the Department of Labor and Industry.

"Electric boiler" means a boiler in which the source of heat is electricity.

"Examining board" means persons appointed by the chief inspector to monitor examinations of inspectors.

"Existing installation" means and includes any boiler or pressure vessel constructed, installed, placed in operation or contracted for before July 1, 1974.

"External inspection" means an inspection of the exterior of the boiler or pressure vessel and its appliances when the item is in operation.

"Heating boiler" means a steam or vapor boiler operating at pressures not exceeding 15 psig, or a hot water boiler operating at pressures not exceeding 160 psig or temperature not exceeding 250°F at or near the boiler outlet.

"High-pressure, high-temperature water boiler" means a water boiler operating at pressures exceeding 160 psig or temperatures exceeding 250°F at or near the boiler outlet.

"Hobby boiler" means a steam boiler which serves no commercial purpose and is used solely for hobby or display and operated solely for the enjoyment of the owner.

"Hot water supply boiler" means a boiler furnishing hot water to be used externally to itself at pressures not exceeding 160 psig or temperatures not exceeding 250°F at or near the boiler outlet, with the exception of boilers which are directly fired by oil, gas or electricity where none of the following limitations ~~are~~ is exceeded:

- a. Heat input of 200,000 BTU per hour;
- b. Water temperature of 210°F; or
- c. Nominal water containing capacity of 120 gallons.

"Hot water supply storage tanks" means those heated by steam or any other indirect means where any one of the following limitations ~~are~~ is exceeded:

- a. Heat input of 200,000 BTU per hour;
- b. Water temperature of 210°F; or
- c. Nominal water containing capacity of 120 gallons.

"Inspection certificate" means a certificate issued by the chief inspector for the operation of a boiler or pressure vessel.

"Inspector" means the chief inspector, commonwealth inspector or special inspector.

"Internal inspection" means a complete examination of the internal and external surfaces of a boiler or pressure vessel and its appliances while it is shut down and manhole plates, handhole plates or other inspection openings removed.

"Lap seam crack" means a failure in a lap joint extending parallel to the longitudinal joint and located either between or adjacent to rivet holes.

"Miniature boiler" means any boiler which does not exceed any one of the following limits:

- a. 16 inches inside diameter of shell;
- b. 20 square feet heating surface;
- c. 5 cubic feet gross volume, exclusive of casing and insulation; or
- d. 100 psig maximum allowable working pressure.

"National Board" means the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229, whose membership is composed of the chief inspectors of government jurisdictions who are charged with the enforcement of the provisions of the ASME Code.

"National Board Inspection Code" means ~~the manual for boiler and pressure vessel inspectors published by the National Board. Copies of this code may be obtained from the National Board~~ NB-23, the National Board Inspection Code, 2015 Edition, The National Board of Boiler Pressure Vessel Inspectors.

"National Fire Protection Association No. 85" means the NFPA<sup>®</sup> 85, Boiler and Combustion Systems Hazards Code, 2015 Edition, National Fire Protection Association.

"New boiler or pressure vessel installation" means all boilers or pressure vessels constructed, installed, placed in operation or contracted for after July 1, 1974.

"NFPA" means the National Fire Protection Association.

"Nonstandard boiler or pressure vessel" means a boiler or pressure vessel that does not bear the stamp of Commonwealth of Virginia, the ASME stamp or the National Board stamp when applicable.

"Owner or user" means any person, partnership, firm or corporation who is legally responsible for the safe operation of a boiler or pressure vessel within the Commonwealth.

"Owner-user inspection agency" means any person, partnership, firm or corporation registered with the chief inspector and approved by the board as being legally responsible for inspecting pressure vessels which they operate in this Commonwealth.

"Portable boiler" means an internally fired boiler which is primarily intended for temporary location and whose construction and usage permit it to be readily moved from one location to another.

"Power boiler" means a boiler in which steam or other vapor is generated at a pressure of more than 15 psig.

"Pressure vessel" means a vessel in which the pressure is obtained from an external source, or by the application of heat from an indirect source, or from a direct source, other than those boilers defined in Part I (16VAC25-50-10 et seq.) of this chapter.

"PSIG" means pounds per square inch gauge.

"R Certificate of Authorization" means an authorization issued by the National Board for the repair and alteration of boilers and pressure vessels.

"Reinstalled boiler or pressure vessel" means a boiler or pressure vessel removed from its original setting and reinstalled at the same location or at a new location.

"Repair" means work necessary to return a boiler or pressure vessel to a safe and satisfactory operating condition, provided there is no deviation from the original design.



"Secondhand boiler or pressure vessel" means a boiler or pressure vessel which has changed both location and ownership since the last certificate inspection.

"Special inspector" means an inspector holding a Virginia Certificate of Competency, and who is regularly employed by an insurance company authorized (licensed) to write boiler and pressure vessel insurance in this Commonwealth, an inspector continuously employed by any company operating pressure vessels in this Commonwealth used or to be used by the company, or a contract fee inspector.

"Standard boiler or pressure vessel" means a boiler or pressure vessel which bears the stamp of the Commonwealth of Virginia, the ASME Code stamp and the National Board stamp when applicable.

"Underwriters' Laboratories" means Underwriters' Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062, which is a nonprofit, independent organization testing for public safety. It maintains and operates laboratories for the examination and testing of devices, systems, and materials to determine their relation to life, fire, casualty hazards and crime prevention.

"VR Certificate of Authorization" means an authorization issued by the National Board for the repair of pressure relief valves.

"Water heater" means a vessel used to supply: (i) potable hot water; or (ii) both space heat and potable water in combination which is directly heated by the combustion of fuels, electricity, or any other source and withdrawn for use external to the system at pressures not to exceed 160 psi or temperatures of 210°F. This term also includes fired storage water heaters defined by the Virginia Uniform Statewide Building Code as a "water heater."

## Part II Administration

### **16VAC25-50-20. Minimum construction standards for boilers and pressure vessels.**

A. Boilers and pressure vessels to be installed for operation in this Commonwealth shall be designed, constructed, inspected, stamped and installed in accordance with the applicable ASME ~~Boiler and Pressure Vessel~~ Code including all addenda and applicable code ~~case(s)~~ cases, other international construction standards which are acceptable to the chief inspector, and this chapter.

B. Boilers and pressure vessels shall bear the National Board stamping, except cast iron boilers and UM vessels. A copy of the Manufacturers' Data Report, signed by the manufacturer's representative and the National Board commissioned inspector, shall be filed by the owner or user with the chief inspector prior to its operation in the Commonwealth.

C. Pressure piping -- (including welded piping) -- Piping external to power boilers extending from the boiler to the first stop valve of a single boiler, and to the second stop valve in a battery of two or more boilers is subject to the requirements of the current edition of the ASME Power Boiler Code, Section I and the design, fabrication, installation and testing of the valves and piping shall be in conformity with the applicable paragraphs of the current edition of the ASME Code, Section I. Applicable ASME data report forms for this piping shall be furnished by the owner to the chief inspector. Construction rules for materials, design, fabrication, installation and testing both for the boiler external piping and the power piping beyond the valve or valves required by the current edition of the ASME Power Boiler Code, Section I, are referenced in ~~ANSI~~ ASME B31.1, Power piping, and the ~~code~~ ASME Code.

D. Boilers and pressure vessels brought into the Commonwealth and not meeting ~~code~~ ASME Code requirements shall not be operated unless the owner/user is granted a variance in accordance with § 40.1-51.19 of the Act.

The request for variance shall include all documentation related to the boiler or pressure vessel that will provide evidence of equivalent fabrication standards, i.e., design specification, calculations, material specifications, detailed construction drawings, fabrication and inspection procedures and qualification records, examination, inspection and test records, and any available manufacturers' data report.

In order to facilitate such a variance approval, the submission of documentation, in the English language and in current U.S. standard units of measure would be helpful. The following list of documents, while not all inclusive, would be useful in providing evidence of safety equivalent to ASME Code construction:

1. List of materials used for each pressure part;
2. The design calculations to determine the maximum allowable working pressure in accordance with the ASME ~~Boiler and Pressure Vessel Code~~, applicable section, edition and addenda;
3. The design code used and the source of stress values for the materials used in the design calculations;
4. The welding procedures used and the qualification records for each procedure;
5. The material identification for each type of welding material used;
6. The performance qualification records for each welder or welding operator used in the construction of the boiler or pressure vessel;
7. The extent of any nondestructive examination (NDE) performed and the qualification records of NDE operators;
8. Record of final pressure test signed by a third party inspector;
9. Name and organization of the third party inspection agency;
10. A certification from a licensed professional engineer stating that the boiler or pressure vessel has been constructed to a standard providing equivalent safety to that of the ASME ~~Boiler and Pressure Vessel Code~~. A signature, date and seal of the certifying engineer ~~is~~ are required;
11. Where applicable, a matrix of differences between the actual construction of the boiler or pressure vessel for which a variance is requested and a similar boiler or pressure vessel that is ~~code~~ ASME Code stamped; and
12. Where applicable, a letter from an insurance company stating that it will insure the boiler or pressure vessel.

After notification of a violation of ~~these rules and regulations~~ this chapter, an owner/user desiring a variance shall submit a request for variance within 30 days.

The chief inspector shall respond to any request for a variance within 30 days of receipt of all required documentation, and shall submit a recommendation to the commissioner, who will make the decision on the variance.

E. Before secondhand equipment is installed, application for permission to install shall be filed by the owner or user with the chief inspector and approval obtained.

F. Electric boilers, subject to the requirements of the Act and this chapter, shall bear the Underwriters' Laboratories label on the completed unit or assembly by the manufacturer. This label shall be in addition to the code symbol stamping requirements of the ASME Code and the National Board.

**16VAC25-50-30. Frequency of inspections of boilers and pressure vessels.**

A. Power boilers and high-pressure, high-temperature water boilers shall receive an annual internal inspection for certification. Such boilers shall also receive, where possible, an annual external inspection, given while under representative operating conditions.

B. Heating boilers shall receive a certificate inspection biennially.

1. Steam boilers shall receive an internal inspection where construction permits.

2. Water boilers shall receive an external inspection with an internal inspection at the discretion of the inspector where construction permits.

C. Except as provided for in subsection E of this section, pressure vessels subject to internal corrosion shall receive a certificate inspection biennially. This inspection shall be an internal inspection conducted at the discretion of the inspector where construction permits.

D. Except as provided for in subsection E of this section, pressure vessels not subject to internal corrosion shall receive a certificate inspection biennially. This inspection shall be an external inspection, with an internal inspection conducted at the discretion of the inspector where construction permits.

E. Pressure vessels that are under the supervision of an authorized owner-user inspection agency shall be inspected at intervals in a manner as agreed upon between the Commissioner and that agency.

F. Boiler and pressure vessel components of nuclear power plants, that are included in the Act, shall be inspected as provided by ~~Section XI~~ of the ASME ~~Boiler and Pressure Vessel Code~~, Section XI.

G. Based upon documentation of such actual service conditions by the owner or user of the operating equipment, the Commissioner may permit variations in the inspection requirements as provided in the Act.

**16VAC25-50-260. Removal of safety appliances.**

A. No person shall attempt to remove or do any work on any safety appliance prescribed by this chapter while a boiler or pressure vessel is in operation, except as provided in applicable sections of the current edition of the ASME Code. Should any of these appliances be removed for repair during an outage of a boiler or pressure vessel, they must be reinstalled and in proper working order before the object is again placed in service.

B. No person shall load the safety valve or valves in any manner to maintain a working pressure in excess of that stated on the inspection certificate.

**16VAC25-50-280. Requirements for new installations.**

A. No boiler or pressure vessel shall be installed in this Commonwealth unless it has been constructed, inspected and stamped as provided in Part II, 16VAC25-50-20 except:

1. Those exempt by the Act;
2. Those outlined in Part II, 16VAC25-50-20 D; and
3. Those existing boilers and pressure vessels ~~which~~ that are to be reinstalled.

B. All new boiler and pressure vessel installations, including reinstalled and secondhand boilers and pressure vessels, shall be installed in accordance with the requirements of the current edition of the ASME Code and this chapter.

C. A boiler or pressure vessel constructed equivalent to ASME Code standards, or having the standard stamping of another state that has adopted a standard of construction equivalent to the standard of this Commonwealth, may be accepted by the chief inspector. The person desiring to install the boiler or pressure vessel shall make application for the installation prior to construction and shall file the Manufacturers' Data Report for the boiler or pressure vessel with the chief inspector following construction and prior to installation.

D. The stamping shall not be concealed by insulation or paint and shall be exposed at all times unless a suitable record is kept of the location of the stamping so that it may be readily uncovered at any time this may be desired.

**16VAC25-50-300. Return loop connection.**

The return water connections to all low-pressure, steam heating boilers supplying a gravity return heating system shall be arranged to form a loop so that the water cannot be forced out of the boiler below the safe water level. This connection, known as a "return pipe loop connection," is shown in Section IV, the current edition of the ASME Heating Boiler Code, Section IV.

**16VAC25-50-330. Operation.**

The current edition of the ASME Code, Section VII, Recommended Rules for Care of Power Boilers, Section VII, and the current edition of the ASME Code, Section VI, Recommended Rules for Care of Heating Boilers, Section VI, of the ASME Code, shall be used as a guide for proper and safe operating practices.

Part III  
Existing Installations

**16VAC25-50-360. Power and high-pressure, high-temperature water boilers.**

A. Age limit of existing boilers.

1. The age limit of any boiler of nonstandard construction, installed before July 1, 1974, other than one having a riveted, longitudinal lap joint, shall be 30 years; however, any boiler passing a thorough internal and external inspection, and not displaying any leakage or distress under a hydrostatic pressure test of 1-1/2 times the allowable working pressure held for at least 30

minutes, may be continued in operation without reduction in working pressure. The age limit of any boiler having riveted, longitudinal, lap joints and operating at a pressure in excess of 50 psig shall be 20 years. This type of boiler, when removed from an existing setting, shall not be reinstalled for a pressure in excess of 15 psig. A reasonable time for replacement, not to exceed one year, may be given at the discretion of the chief inspector.

2. The shell or drum of a boiler in which a typical lap seam crack is discovered along a longitudinal riveted joint for either butt or lap joints shall be permanently removed from service.

3. The age limit of boilers of standard construction, installed before July 1, 1974, shall be determined from the results of a thorough internal and external inspection by an authorized inspector and the application of an appropriate pressure test. Hydrostatic test pressure shall be 1-1/2 times the allowable working pressure and maintained for 30 minutes. The boiler may be continued in service at the same working pressure provided there is no evidence of leakage or distress under these test conditions.

4. The minimum temperature of the water used for the hydrostatic test of low-pressure boilers and pressure vessels shall be 60°F. The minimum temperature of the water used for the hydrostatic test of power boilers shall be 70°F or ambient whichever is greater.

B. The maximum allowable working pressure for standard boilers shall be determined in accordance with the applicable provisions of the edition of the ASME Code under which they were constructed and stamped.

C. 1. The maximum allowable working pressure on the shell of a nonstandard boiler shall be determined by the strength of the weakest section of the structure, computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint or tube ligaments, the inside diameter of the weakest course and the factor of safety allowed by this chapter.

$$\frac{TStE}{RFS} = \text{Maximum allowable working pressure, psi}$$

where:

TS = ultimate tensile strength of shell plates, psi

t = minimum thickness of shell plate, in weakest course, inches

E = efficiency of longitudinal joint:

For tube ligaments, E shall be determined by the rules in the ASME Code, Section I of the ASME Code for Power Boilers. For riveted joints, E shall be determined by the rules in the applicable edition of the ASME Code. For seamless construction, E shall be considered 100%.

R = inside radius of the weakest course of the shell, in inches

FS = factor of safety permitted.

2. Tensile strength. When the tensile strength of steel or wrought iron shell plates is not known, it shall be taken as 55,000 psi.

3. Crushing strength of mild steel. The resistance to crushing of mild steel shall be taken at 95,000 psi of cross-sectional area.

4. Strength of rivets in shear. When computing the ultimate strength of rivets in shear, the following values, in pounds per square inch, of the cross-sectional area of the rivet shank shall be used.

	PSI
Iron rivets in single shear	38,000
Iron rivets in double shear	76,000
Steel rivets in single shear	44,000
Steel rivets in double shear	88,000

When the diameter of the rivet holes in the longitudinal joints of a boiler is not known, the diameter and cross-sectional area of rivets, after driving, may be selected from Table 1, or as ascertained by cutting out one rivet in the body of the joint.

TABLE 1 SIZES OF RIVETS BASED ON PLATE THICKNESS (in inches)	
Plate of Thickness	Rivet Diameter after Driving
1/4	11/16
9/32	11/16
5/16	3/4
11/32	3/4
3/8	13/16
13/32	13/16
7/16	15/16
15/32	15/16
1/2	15/16
9/16	1-1/16
5/8	1-1/16

5. Factors of safety. The following factors of safety shall be increased by the inspector if the condition and safety of the boiler demand it:

a. The lowest factor of safety permissible on existing installations shall be 4.5 for vessels built prior to January 1, 1999. For vessels built on or after January 1, 1999, the factor of safety may be 4.0. Horizontal-return-tubular boilers having continuous longitudinal lap seams more than 12 feet in length, shall have a factor of safety of eight. When this type of boiler is removed from its existing setting, it shall not be reinstalled for pressures in excess of 15 psig.

b. Reinstalled or secondhand boilers shall have a minimum factor of safety of six when the longitudinal seams are of lap-riveted construction, and a minimum factor of safety of five when the longitudinal seams are of butt-strap and double-strap construction.

D. Cast-iron headers and mud drums. The maximum allowable working pressure on a water tube boiler, the tubes of which are secured to cast iron or malleable-iron headers, or which have cast iron mud drums, shall not exceed 160 psig.



E. Pressure on cast iron boilers. The maximum allowable working pressure for any cast iron boiler, except hot water boilers, shall be 15 psig.

F. Safety valves.

1. The use of weighted-lever safety valves, or safety valves having either the seat or disk of cast iron, shall be prohibited. Valves of this type shall be replaced by direct, spring-loaded, pop-type valves that conform to the requirements of the current edition of the ASME Code, Section I.
2. Each boiler shall have at least one safety valve, and, if it has more than 500 square feet of water-heating surface or an electric power input of more than 500 kilowatts, it shall have two or more safety valves.
3. The valve or valves shall be connected to the boiler, independent of any other steam connection, and attached as close as possible to the boiler without unnecessary intervening pipe or fittings. Where alteration is required to conform to this requirement, the chief inspector shall allow the owner or user reasonable time in which to complete the work.
4. No valves of any description shall be placed between the safety valve and the boiler nor on the escape pipe, if used, between the safety valve and the atmosphere, except as provided by applicable sections of the current edition of the ASME Code. When an escape pipe is used, it shall be at least full size of the safety-valve discharge and fitted with an open drain to prevent water lodging in the upper part of the safety valve or escape pipe. When an elbow is placed on a safety valve escape pipe, it shall be located close to the safety-valve outlet or the escape pipe shall be anchored and supported securely. All safety valve discharges shall be located or piped as not to endanger persons working in the area.
5. The safety-valve capacity of each boiler shall be so that the safety valve or valves will discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than 6.0% above the highest pressure to which any valve is set, and in no case to more than 6.0% above the maximum allowable working pressure.
6. One or more safety valves on every boiler shall be set at or below the maximum allowable working pressure. The remaining valves may be set within a range of 3.0% above the maximum allowable working pressure, but the range of setting of all the safety valves on a boiler shall not exceed 10% of the highest pressure to which any valve is set.
7. When two or more boilers, operating at different pressures and safety valve settings, are interconnected, the lower pressure boilers or interconnected piping shall be equipped with safety valves of sufficient capacity to prevent overpressure, considering the maximum generating capacity of all boilers.
8. In those cases where the boiler is supplied with feedwater directly from water mains without the use of feeding apparatus (not to include return traps), no safety valve shall be set at a pressure higher than 94% of the lowest pressure obtained in the supply main feeding the boiler.
9. The relieving capacity of the safety valves on any boiler shall be checked by one of the three following methods and, if found to be insufficient, additional valves shall be provided:
  - a. By making an accumulation test, which consists of shutting off all other steam-discharge outlets from the boiler and forcing the fires to the maximum. The safety-valve capacity shall be sufficient to prevent a rise of pressure in excess of 6.0% of the maximum allowable working pressure. This method shall not be used on a boiler with a superheater or reheater.
  - b. By measuring the maximum amount of fuel that can be burned and computing the corresponding evaporative capacity (steam-generating capacity) upon the basis of the

heating value of this fuel. These computations shall be made as outlined in the appendix of the current edition of the ASME Code, Section I.

c. By measuring the maximum amount of feedwater that can be evaporated.

When either of the methods (b or c) outlined in this subdivision is employed, the sum of the safety-valve capacities shall be equal to or greater than the maximum evaporative capacity (maximum steam-generating capacity) of the boiler.

10. The relieving capacity of safety valves for forced-flow steam generators shall be in accordance with the requirements of ~~Section I~~ the current edition of the ASME ~~Boiler Code~~, Section I.

11. Safety valves and safety relief valves requiring repair shall be replaced with a new valve or repaired by the original manufacturer, its authorized representative or the holder of a "VR" Stamp.

#### G. Boiler feeding.

1. Each boiler shall have a feed supply ~~which~~ that will permit it to be fed at any time while under pressure.

2. A boiler having more than 500 square feet of water-heating surface shall have at least two means of feeding, one of which shall be an approved feed pump or injector. A source of feed directly from water mains at a pressure 6.0% greater than the set pressure of the safety valve with the highest setting may be considered one of the means. As provided in the current edition of the ASME ~~Power Boiler~~ Code, Section I, boilers fired by gaseous, liquid or solid fuel in suspension may be equipped with a single means of feeding water provided means are furnished for the immediate shutoff of heat input if the water feed is interrupted.

3. The feedwater shall be introduced into the boiler in a manner so that it will not be discharged close to riveted joints of shell or furnace sheets, or directly against surfaces exposed to products of combustion, or to direct radiation from the fire.

4. The feed piping to the boiler shall be provided with a check valve near the boiler and a valve or cock between the check valve and the boiler. When two or more boilers are fed from a common source, there shall also be a valve on the branch to each boiler between the check valve and source of supply. Whenever a globe valve is used on feed piping, the inlet shall be under the disk of the valve.

5. In all cases where returns are fed back to the boiler by gravity, there shall be a check valve and stop valve in each return line, the stop valve to be placed between the boiler and the check valve, and both shall be located as close to the boiler as is practicable. No stop valves shall be placed in the supply and return pipe connections of a single boiler installation.

6. Where deaerating heaters are not employed, the temperature of the feedwater shall not be less than 120°F to avoid the possibility of setting up localized stress. Where deaerating heaters are employed, the minimum feedwater temperature shall not be less than 215°F so that dissolved gases may be thoroughly released.

#### H. Water level indicators.

1. Each boiler shall have at least one water gauge glass installed and located so that the lowest visible part of the water glass shall be at least two inches above the lowest permissible water level, at which level there will be no danger of overheating any part of the boiler when in operation at that level; except as provided by the current edition of the ASME Code.



2. No outlet connections (except for damper regulator, feedwater regulator, low-water fuel cutout, drain, steam gauges, or such apparatus that does not permit the escape of an appreciable amount of steam or water from it) shall be placed on the piping that connects the water column to the boiler. The water column shall be provided with a valved drain of at least 3/4 inch pipe size; the drain is to be piped to a safe location.
3. When the direct reading of gauge glass water level is not readily visible to the operator in his working area dependable indirect indications shall be provided utilizing remote level indicators or equipment to transmit the gauge glass image. When remote level indication is provided for the operator instead of the gauge glass, the minimum level reference shall be clearly marked.

#### I. Steam gauges.

1. Each steam boiler shall have a steam gauge, with dial range not less than 1-1/2 times the maximum allowable working pressure, connected to the steam space or to the steam connection to the water column. The steam gauge shall be connected to a siphon or equivalent device of sufficient capacity to keep the gauge tube filled with water and arranged so that the gauge cannot be shut off from the boiler except by a cock with a tee or lever handle placed in the pipe near the gauge. The handle of the cock shall be parallel to the pipe in which it is located when the cock is open.
2. When a steam gauge connection longer than eight feet becomes necessary, a shutoff valve may be used near the boiler provided the valve is of the outside-screw-and-yoke type and is locked open. The line shall be of ample size with provision for free blowing.
3. Each boiler shall be provided with a test gauge connection and suitable valving for the exclusive purpose of attaching a test gauge so that the accuracy of the boiler steam gauge may be ascertained while the boiler is in operation.

#### J. Stop valves.

1. Except for a single-boiler, prime-mover installation, each steam outlet from a boiler (except safety valve and water column connections) shall be fitted with a stop valve located as close as practicable to the boiler.
2. In a single-boiler, prime-mover installation the steam stop valve may be omitted provided the prime-mover throttle valve is equipped with an indicator to show whether the valve is open or closed and is designed to withstand the required hydrostatic pressure test of the boiler.
3. When a stop valve is so located that water can accumulate, ample drains shall be provided. The drainage shall be piped to a safe location and shall not be discharged on the top of the boiler or its setting.
4. When boilers provided with manholes are connected to a common steam main, the steam connection from each boiler shall be fitted with two stop valves having an ample free-blow drain between them. The discharge of the drain shall be visible to the operator and shall be piped clear of the boiler setting. The stop valves shall consist preferably of one automatic nonreturn valve (set next to the boiler) and a second valve of the outside-screw-and-yoke type.

K. Blowoff connection.

1. The construction of the setting around each blowoff pipe shall permit free expansion and contraction. Careful attention shall be given to the problem of sealing these setting openings without restricting the movement of the blowoff piping.
2. All blowoff piping, when exposed to furnace heat, shall be protected by firebrick or other heat-resisting material constructed so that the piping may be inspected.
3. Each boiler shall have a blowoff pipe, fitted with a valve or cock, in direct connection with the lowest water space. Cocks shall be of the gland or guard type and suitable for the pressure allowed. The use of globe valves shall not be permitted. Where the maximum allowable working pressure exceeds 100 psig, each blowoff pipe shall be provided with two valves or a valve and cock; however only one valve need be provided for forced-flow steam generators with no fixed steam and waterline, high-temperature water boilers, and those used for traction or portable purposes with less than 100 gallons normal water content.
4. Blowoff piping shall comply with the requirements of the current edition of the ASME Code, Section I, and ANSI ASME B31.1, from the boiler to the valve or valves, and shall be run full size without use of reducers or bushings. All piping shall be steel. Galvanized steel pipe and fittings shall not be used for blowoff piping.
5. All fittings between the boiler and blowoff valve shall be of steel. In case of renewal of blowoff pipe or fittings, they shall be installed in accordance with this chapter for new installations.

L. Repairs and renewals of boiler fittings and appliances. Whenever repairs are made to fittings or appliances or it becomes necessary to replace them, such repairs or replacements shall comply with the requirements for new installations.

M. Each automatically fired steam boiler or system of commonly connected steam boilers shall have at least one steam pressure control device that will shut off the fuel supply to each boiler or system of commonly connected boilers when the steam pressure reaches a preset maximum operating pressure. In addition, each individual automatically fired steam boiler shall have a high steam pressure limit control that will prevent generation of steam pressure in excess of the maximum allowable working pressure.

N. Conditions not covered by this chapter. All cases not specifically covered by this chapter shall be treated as new installations pursuant to 16VAC25-50-280 or may be referred to the chief inspector for instructions concerning the requirements.

**16VAC25-50-370. Heating boilers.**

A. Standard boilers. The maximum allowable working pressure of standard boilers shall in no case exceed the pressure indicated by the manufacturer's identification stamped or cast on the boiler or on a plate secured to it.

B. Nonstandard riveted boilers. The maximum allowable working pressure on the shell of a nonstandard riveted heating boiler shall be determined in accordance with 16VAC25-50-360 C covering existing installations, power boilers, except that in no case shall the maximum allowable working pressure of a steam heating boiler exceed 15 psig, or a hot water boiler exceed 160 psig or 250°F temperature.

C. Nonstandard welded boilers. The maximum allowable working pressure of a nonstandard steel or wrought iron heating boiler of welded construction shall not exceed 15 psig for steam. For other than steam service, the maximum allowable working pressure shall be calculated in accordance with ~~Section IV~~ of the ASME Code, Section IV.

D. Nonstandard cast iron boilers.

1. The maximum allowable working pressure of a nonstandard boiler composed principally of cast iron shall not exceed 15 psig for steam service or 30 psig for hot water service.
2. The maximum allowable working pressure of a nonstandard boiler having cast iron shell or heads and steel or wrought iron tubes shall not exceed 15 psig for steam service or 30 psig for hot water service.

E. Safety valves.

1. Each steam boiler must have one or more officially rated (ASME Code stamped and National Board rated) safety valves of the spring pop type adjusted to discharge at a pressure not to exceed 15 psig. Seals shall be attached in a manner to prevent the valve from being taken apart without breaking the seal. The safety valves shall be arranged so that they cannot be reset to relieve at a higher pressure than the maximum allowable working pressure of the boiler. A body drain connection below seat level shall be provided by the manufacturer, and this drain shall not be plugged during or after field installation. For valves exceeding two inch pipe size, the drain hole or holes shall be tapped not less than 3/8 inch pipe size. For valves less than two inches, the drain hole shall not be less than  $\frac{3}{8}$  1/4 inch in diameter.
2. No safety valve for a steam boiler shall be smaller than 3/4 inch unless the boiler and radiating surfaces consist of a self-contained unit. No safety valve shall be larger than 4-1/2 inches. The inlet opening shall have an inside diameter equal to, or greater than, the seat diameter.
3. The minimum relieving capacity of the valve or valves shall be governed by the capacity marking on the boiler.
4. The minimum valve capacity in pounds per hour shall be the greater of that determined by dividing the maximum BTU output at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1,000; or shall be determined on the basis of the pounds of steam generated per hour per square foot of boiler heating surface as given in Table 2. When operating conditions require it a greater relieving capacity shall be provided. In every case, the requirements of subdivision 5 of this subsection shall be met.

TABLE 2  
Minimum Pounds of Steam Per Hour Per Square Foot of Heating Surface

	Fire Tube Boilers	Water Tube Boilers
<b>Boiler Heating Surface:</b>		
Hand fired	5	6
Stoker fired	7	8
Oil, gas, or pulverized fuel fired	8	10
<b>Waterwall Heating Surface:</b>		

Hand fired	8	8
Stoker fired	10	12
Oil, gas, or pulverized fuel fired	14	16

NOTES: When a boiler is fired only by a gas giving a heat value of not in excess of 200 BTU per cubic foot, the minimum safety valve or safety relief valve relieving capacity may be based on the value given for handfired boilers ~~above~~ in Table 2.

The minimum safety valve or safety relief valve relieving capacity for electric boilers shall be 3-1/2 pounds per hour per kilowatt input.

For heating surface determination, see the current edition of the ASME Code, Section IV.

5. The safety valve capacity for each steam boiler shall be such that with the fuel burning equipment operating at maximum capacity, the pressure cannot rise more than five psig above the maximum allowable working pressure.

6. When operating conditions are changed, or additional boiler surface is installed, the valve capacity shall be increased, if necessary, to meet the new conditions and be in accordance with subdivisions 4 and 5 of this subsection. When additional valves are required, they may be installed on the outlet piping provided there is no intervening valve.

7. If there is any doubt as to the capacity of the safety valve, an accumulation test shall be run (see the current edition of the ASME Code, Section VI, Care of Heating Boilers) VI).

8. No valve of any description shall be placed between the safety valve and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. The discharge pipe shall be at least full size and be fitted with an open drain to prevent water lodging in the upper part of the safety valve or in the discharge pipe. When an elbow is placed on the safety valve discharge pipe, it shall be located close to the safety valve outlet, or the discharge pipe shall be securely anchored and supported. All safety valve discharges shall be so located or piped as not to endanger persons working in the area.

#### F. Safety relief valve requirements for hot water boilers.

1. Each hot water boiler shall have one or more officially rated (ASME Code stamped and National Board rated) safety relief valves set to relieve at or below the maximum allowable working pressure of the boiler. Safety relief valves officially rated as to capacity shall have pop action when tested by steam. When more than one safety relief valve is used on hot water boilers, the additional valve or valves shall be officially rated and shall be set within a range not to exceed six psig above the maximum allowable working pressure of the boiler up to and including 60 psig and 5.0% for those having a maximum allowable working pressure exceeding 60 psig. Safety relief valves shall be spring loaded. Safety relief valves shall be so arranged that they cannot be reset at a higher pressure than the maximum permitted by this paragraph.

2. No materials liable to fail due to deterioration or vulcanization when subject to saturated steam temperature corresponding to capacity test pressure shall be used for any part.

3. No safety relief valve shall be smaller than 3/4 inch nor larger than 4-1/2 inches standard pipe size, except that boilers having a heat input not greater than 15,000 BTU per hour may be equipped with a safety relief valve of 1/2 inch standard pipe size. The inlet opening shall have an inside diameter approximately equal to, or greater than, the seat diameter. In no case shall the

minimum opening through any part of the valve be less than 1/2 inch diameter or its equivalent area.

4. The required steam relieving capacity, in pounds per hour, of the pressure relieving device or devices on a boiler shall be the greater of that determined by dividing the maximum output in BTU at the boiler outlet obtained by the firing of any fuel for which the unit is installed by 1,000, or on the basis of pounds of steam generated per hour per square foot of boiler heating surface as given in Table 2. When necessary a greater relieving capacity of valves shall be provided. In every case, the requirements of ~~subsection~~ subdivision F 6 of this section shall be met.

5. When operating conditions are changed, or additional boiler heating surface is installed, the valve capacity shall be increased, if necessary, to meet the new conditions and shall be in accordance with subdivision F 6 of this section. The additional valves required, on account of changed conditions, may be installed on the outlet piping provided there is no intervening valve.

6. Safety relief valve capacity for each boiler shall be so that, with the fuel burning equipment installed and operated at maximum capacity the pressure cannot rise more than ~~6~~ six psig above the maximum allowable working pressure for pressure up to and including 60 psig and 5.0% of maximum allowable working pressures over 60 psig.

7. If there is any doubt as to the capacity of the safety relief valve, an accumulation test shall be run (see the current edition of the ASME Code, Section VI, Care of Heating Boilers) VI).

8. No valve of any description shall be placed between the safety relief valve and the boiler, nor on the discharge pipe between the safety relief valve and the atmosphere. The discharge pipe shall be at least full size and fitted with an open drain to prevent water lodging in the upper part of the safety relief valve or in the discharge pipe. When an elbow is placed on the safety relief valve discharge pipe, it shall be located close to the safety relief valve outlet or the discharge pipe shall be securely anchored and supported. All safety relief valve discharges shall be so located or piped as not to endanger persons working in the area.

G. Valve replacement and repair. Safety valves and safety relief valves requiring repair shall be replaced with a new valve or repaired by the original manufacturer, its authorized representative, or the holder of a "VR" Stamp.

H. Pressure relieving devices. Boilers and fired storage water heaters except those exempted by the Act shall be equipped with pressure relieving devices in accordance with the requirements of ~~Section IV~~ the current edition of the of the ASME ~~Boiler and Pressure Vessel Code, Section IV.~~

I. Instruments, fittings and control requirements. Instruments, fittings and controls for each boiler installation shall comply with the requirements of the current edition of the ASME ~~Heating Boiler Code,~~ Section IV.

J. Low water fuel cutoff.

1. Each automatically fired hot water heating boiler with heat input greater than 400,000 ~~BTU's~~ BTUs per hour shall have an automatic low water fuel cutoff ~~which that~~ has been designed for hot water service, located so as to stop the fuel supply automatically when the surface of the water falls to the level established in subdivision 2 of this subsection (also see ASME ~~Heating Boiler Code,~~ Section IV).



2. As there is no normal waterline to be maintained in a hot water heating boiler, any location of the low water fuel cutoff above the lowest safe permissible water level established by the boiler manufacturer is satisfactory.

3. A coil type boiler or a water tube boiler with heat input greater than 400,000 BTU's BTUs per hour requiring forced circulation, to prevent overheating of the coils or tubes, shall have a flow sensing device installed in the outlet piping, instead of the low water fuel cutoff required in subdivision 1 of this subsection to stop the fuel supply automatically when the circulating flow is interrupted.

#### K. Steam gauges.

1. Each steam boiler shall have a steam gauge connected to its steam space, its water column, or its steam connection, by means of a siphon or equivalent device exterior to the boiler. The siphon shall be of sufficient capacity to keep the gauge tube filled with water and arranged so that the gauge cannot be shut off from the boiler except by a cock.

2. The range of the scale on the dial of a steam boiler pressure gauge shall be not less than 30 psig nor more than 60 psig. The gauge shall be provided with effective stops for the indicating pointer at the zero point and at the maximum pressure point. The travel of the pointer from  $\emptyset$  zero to full scale 30 psig shall be at least three inches.

#### L. Pressure or altitude gauges.

1. Each hot water boiler shall have a pressure or altitude gauge connected to it or to its flow connection in a manner so that it cannot be shut off from the boiler except by a cock with tee or lever handle placed on the pipe near the gauge. The handle of the cock shall be parallel to the pipe in which it is located when the cock is open.

2. The range of the scale on the dial of the pressure or altitude gauge shall be not less than 1-1/2 times nor more than three times the maximum allowable working pressure. The gauge shall be provided with effective stops for the indicating pointer at the  $\emptyset$  zero point and at the maximum pressure point.

3. Piping or tubing for pressure or altitude gauge connections shall be of nonferrous metal when smaller than one inch pipe size.

M. Thermometers. Each hot water boiler shall have a thermometer located and connected so that it shall be easily readable when observing the water pressure or altitude gauge. The thermometer shall be located so that it will at all times indicate the temperature in degrees Fahrenheit of the water in the boiler at or near the outlet.

#### N. Water gauge glasses.

1. Each steam boiler shall have one or more water gauge glasses attached to the water column or boiler by means of valved fittings. The lower fitting shall be provided with a drain valve of the straightaway type with opening not less than 1/4 inch diameter to facilitate cleaning. Gauge glass replacement shall be possible while the boiler is under pressure.

2. Transparent material, other than glass, may be used for the water gauge provided that the material has proved suitable for the pressure, temperature and corrosive conditions encountered in service.

O. Stop valves and check valves.

1. If a boiler can be closed off from the heating system by closing a steam stop valve, there shall be a check valve in the condensate return line between the boiler and the system.
2. If any part of a heating system can be closed off from the remainder of the system by closing a steam stop valve, there shall be a check valve in the condensate return pipe from that part of the system.

P. Feedwater connections.

1. Feedwater, make-up water, or water treatment shall be introduced into a boiler through the return piping system or through an independent feedwater connection ~~which~~ that does not discharge against parts of the boiler exposed to direct radiant heat from the fire. Feedwater, make-up water, or water treatment shall not be introduced through openings or connections provided for inspection or cleaning, safety valve, safety relief valve, surface blowoff, water column, water gauge glass, pressure gauge or temperature gauge.
2. Feedwater piping shall be provided with a check valve near the boiler and a stop valve or cock between the check valve and the boiler or return pipe system.

Q. Return pump. Each boiler equipped with a condensate return pump, where practicable, shall be provided with a water level control arranged to maintain the water level in the boiler automatically within the range of the gauge glass.

R. Repairs and renewals of boiler fittings and appliances. Whenever repairs are made to fittings or appliances, or it becomes necessary to replace them, the repairs or replacements shall comply with the requirements for new installations.

S. Conditions not covered by this chapter. Any case not specifically covered by this chapter shall be treated as a new boiler or pressure vessel installation pursuant to 16VAC25-50-280 or may be referred to the chief inspector for instructions concerning the requirements.

**16VAC25-50-380. Pressure vessels.**

A. Maximum allowable working pressure for standard pressure vessels. The maximum allowable working pressure for standard pressure vessels shall be determined in accordance with the applicable provisions of the edition of the ASME Code or API-ASME code under which they were constructed and stamped. The maximum allowable working pressure shall not be increased to a greater pressure than shown on the manufacturers nameplate stamping and data report.

B. Maximum allowable working pressure for nonstandard pressure vessels.

1. For internal pressure. The maximum allowable working pressure on the shell of a nonstandard pressure vessel shall be determined by the strength of the weakest course computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint, the inside diameter of the weakest course and the factor set by this chapter.

$$\frac{TStE}{RFS} = \text{maximum allowable working pressure, psi}$$

where:

TS = ultimate tensile strength of shell plate, psi. When the tensile strength of the steel plate is not known, it shall be taken as 55,000 psi for temperatures not exceeding 700°F.

t = minimum thickness of shell plate of weakest course, inches,

E = efficiency of longitudinal joint depending upon construction. Use the following values:

For riveted joints -- calculated riveted efficiency;

For fusion-welded joints:

Single lap weld	40%
Double lap weld	50%
Single butt weld	60%
Double butt weld	70%
Forge weld	70%
Brazed steel	80%

R = inside radius of weakest course of shell, inches, provided the thickness does not exceed 10% of the radius. If the thickness is over 10% of the radius, the outer radius shall be used.

FS = factor of safety allowed by this chapter.

2. For external pressure. The maximum allowable working pressure for cylindrical nonstandard pressure vessels subjected to external or collapsing pressure shall be determined by the rules in the ASME Code, Section VIII, Division 1, of the ASME Code.

3. Factors of safety. The minimum factor of safety shall in no case be less than 3.5 for vessels built on or after January 1, 1999. For vessels built prior to January 1, 1999, the minimum factor of safety shall in no case be less than 4.0. The factor of safety may be increased when deemed necessary by the inspector to insure the operation of the vessel within safe limits. The condition of the vessel and the particular service of which it is subject will be the determining factors.

4. The maximum allowable working pressure permitted for formed heads under pressure shall be determined by using the appropriate formulas from the ASME Code, Section VIII, Division 1, ASME Code and the tensile strength and factors of safety given in subdivisions 1 and 3 of this subsection.

C. Inspection of inaccessible parts. Where in the opinion of the inspector, as the result of conditions disclosed at the time of inspection, it is advisable to remove the interior or exterior lining, covering, or brickwork to expose certain parts of the vessel not normally visible, the owner or user shall remove the materials to permit proper inspection and to establish construction details. Metal thickness shall be determined utilizing appropriate equipment including drilling if necessary.

D. Pressure relief devices. Pressure relief devices for each pressure vessel installation, not exempt by the Act, shall comply with the requirements of the ASME Pressure Vessel Code, Section VIII.

E. Safety appliances.

1. Each pressure vessel shall be protected by safety and relief valves and indicating and controlling devices which will insure its safe operation. These valves and devices shall be constructed, located and installed so that they cannot readily be rendered inoperative. The relieving capacity of the safety valves shall prevent a rise of pressure in the vessel of more than



10% above the maximum allowable working pressure, taking into account the effect of static head. Safety valve discharges shall be located or piped so as not to endanger persons working in the area.

2. Safety valves and safety relief valves requiring repair shall be replaced with a new valve or repairs shall be performed by the original manufacturer, its authorized representative, or the holder of a "VR" stamp.

F. Repairs and renewals of fittings and appliances. Whenever repairs are made to fittings or appliances, or it becomes necessary to replace them, the repairs or replacements shall comply with requirements for new installations.

G. Conditions not covered by this chapter. All cases not specifically covered by this chapter shall be treated as new installations or may be referred to the chief inspector for instructions concerning the requirements.

**16VAC25-50-430. Hydrostatic pressure tests.**

A. A hydrostatic pressure test, when applied to boilers or pressure vessels, shall not exceed 1.25 times the maximum allowable working pressure, except as provided by the current edition of the ASME Code. The pressure shall be under proper control so that in no case shall the required test pressure be exceeded by more than 2.0%.

B. See 16VAC25-50-360 A 4 for temperature limitations on particular power boiler installations.

C. When a hydrostatic test is to be applied to existing installations, the pressure shall be as follows:

1. For all cases involving the question of tightness, the pressure shall be equal to the working pressure.

2. For all cases involving the question of safety, the test pressure shall not exceed 1.25 times the maximum allowable working pressure for temperature. During such test the safety valve or valves shall be removed or each valve disk shall be held to its seat by means of a testing clamp and not by screwing down the compression screw upon the spring.

**16VAC25-50-460. Blowoff equipment.**

A. The blowdown from a boiler or boilers that enters a sewer system or blowdown which is considered a hazard to life or property shall pass through blowoff equipment that will reduce pressure and temperature as required below.

B. The temperature of the water leaving the blowoff equipment shall not exceed 140°F.

C. The pressure of the blowdown leaving any type of blowoff equipment shall not exceed ~~5.0~~ five psig.

D. The blowoff piping and fittings between the boiler and the blowoff tank shall comply with ~~Section I of the current edition of the ASME code Code, Section I~~ and ANSI ASME B31.1.

E. All materials used in the fabrication of boiler blowoff equipment shall comply with ~~Section II of the current edition of the ASME code Code, Section II~~.

F. All blowoff equipment shall be fitted with openings to facilitate cleaning and inspection.

G. Blowoff equipment which conforms to the provisions set forth in the National Board publication, "Boiler Blowoff Equipment", shall meet the requirements of this section.

**16VAC25-50-540. Jacketed kettles and miniatures boilers.**

Jacketed kettles and miniature boilers are acceptable for installation if constructed and stamped in accordance with Section I, IV, or VIII, Division 1, of the current edition of the ASME Code and registered with the National Board.

FORMS (16VAC25-50)

R 1 Form, Report of Welded \_\_ Repair or \_\_ Alteration, CVR1 Rev 1.0.

~~Form R-1, Report of Repair, National Board Inspection Code, NB-66 (rev. 2012).~~

~~Form R-2, Report of Alteration, National Board Inspection Code (eff. 1/1/99).~~

~~Form R-3, Report of Parts Fabricated By Welding, National Board Inspection Code (eff. 1/1/99).~~

~~Form R-4, Report Supplementary Sheet, National Board Inspection Code (eff. 1/1/99).~~

Form R-1, Report of Repair, NB-66, Rev. 13 (rev. 6/25/2015)

Form R-2, Report of Alteration, NB-229, Rev. 7 (rev.11/12/2015)

Form R-3, Report of Parts Fabricated by Welding, NB-230, Rev. 3 (rev. 9/24/2015)

Form R-4, Report Supplement Sheet, NB-231, Rev. 2, (rev. 9/23/2015)

BPV-5, Boiler or Pressure Vessel Data Report- First Internal Inspection (eff. 1/1/99).

BPV-6, Boiler - Fired Pressure Vessel - Report of Inspection (eff. 1/1/99).

DOCUMENTS INCORPORATED BY REFERENCE (16VAC25-50)

~~2007 Boiler and Pressure Vessel Code, ASME Code, American Society of Mechanical Engineers.~~

~~National Board Bylaws, National Board of Boiler and Pressure Vessel Inspectors, August 8, 1996.~~

~~ANSI/NB 23, 2007 National Board Inspection Code, National Board of Boiler and Pressure Vessel Inspectors.~~

~~ASME B31.1, ASME Code for Power Piping, American National Standards Institute, 2007.~~

~~NFPA 85 Boiler and Combustion Systems Hazards, 2001 Edition, National Fire Protection Association.~~

Part CG (General), Part CW (Steam and Waterside Control) and Part CF (Combustion Side Control) Flame Safeguard of ANSI/ASME CSD-1, Controls and Safety Devices for Automatically Fired Boilers, 2009, American Society of Mechanical Engineers.

2015 Boiler and Pressure Vessel Code, ASME Code, The American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990; [www.asme.org](http://www.asme.org)

ANSI/NB 23, 2015 National Board Inspection Code, The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229-1183; [www.nationalboard.org](http://www.nationalboard.org)

ASME B31.1–2014, ASME Code for Power Piping, B-31, The American Society of Mechanical Engineers, International, Two Park Avenue, New York, NY 10016-5990; [www.asme.org](http://www.asme.org)

NFPA 85 Boiler and Combustion Systems Hazards, 2015 Edition, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471; [www.nfpa.org](http://www.nfpa.org)

ANSI/ASME CSD–1–2012, Controls and Safety Devices for Automatically Fired Boilers: Part CG (General), Part CW (Steam and Waterside Control), and Part CF (Combustion Side Control) Flame Safeguard, The American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990; [www.asme.org](http://www.asme.org)

API 510, Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair and Alteration, Tenth Edition, May 2014, American Petroleum Institute, 1220 L Street, NW, Washington, D.C. 20005-4070; [www.api.org](http://www.api.org)

"Boiler Blowoff Equipment," National Board of Boiler and Pressure Vessel Inspectors, Rules and Recommendations for the Design and Construction of Boiler Blowoff Systems, 1991, The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229-1183; [www.nationalboard.org](http://www.nationalboard.org)

API510, Pressure Vessel Inspection Code, Maintenance Inspection, Rating, Repair and Alteration, Ninth Edition, June 2006, American Petroleum Institute.



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF LABOR AND INDUSTRY**

**C. Ray Davenport**  
COMMISSIONER

Main Street Centre  
600 East Main Street, Suite 207  
Richmond, Virginia 23219  
PHONE (804) 371-2327  
FAX (804) 371-6524

**VIRGINIA SAFETY AND HEALTH CODES BOARD**  
**FINAL REGULATION BRIEFING PACKAGE**

**November 30, 2017**

-----

**16VAC-25-60, et seq., Final Amendments to the Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program; State and Local Government Penalties**

**I. Action**

The Virginia Occupational Safety and Health (VOSH) Program request the Safety and Health Codes Board consider for adoption, as a final regulation of the Board, the attached language to amend 16VAC25-60, et seq., Administrative Regulation for the VOSH Program, State and Local Government Penalties.

**II. Summary of the Rulemaking Process.**

A Notice of Intended Regulatory Action (NOIRA) was adopted by the Board on September 13, 2016. The NOIRA was published in the Virginia Register on November 28, 2016, with a 30-day comment period ending on December 28, 2016. No comments were received.

The Board adopted proposed regulatory language on February 16, 2017.

The proposed regulation was published in the Virginia Register on September 4, 2017, with a 60-day comment period ending on November 3, 2017. Two written comments were received (see the Department's response to comments below). A public hearing was held by the Department on behalf of the Safety and Health Codes Board on October 26, 2017. One comment was received from the public (see the Department's response to comments below).

**III. Summary of the Issues Under Consideration for Amendment**

The final amendment establishes procedures for the application of penalties for state and local



government employers in accordance with §40.1-2.1 of the *Code of Virginia*. In 2016, the Virginia General Assembly passed and Governor Terry R. McAuliffe signed into law legislation that allows the Board to authorize the Commissioner to issue penalties to state and local government employers. During the legislative process, the Department represented to General Assembly members that it would pursue authorization from the Board to:

Allow VOSH to issue proposed penalties to state and local government employers for willful, repeat and failure-to-abate violations, as well as serious violations that cause a fatal accident or are classified as “high gravity”, i.e., a violation that is classified as “high severity” and “high probability”. An example of a “high gravity” serious violation would be one where a violation directly results in non-fatal but serious injuries such as broken bones or amputations. Violations that are classified as non-high gravity serious, and other-than-serious violations would not receive a penalty.

#### **IV. Department’s Response to Public Comments.**

As a result of the October 26, 2017 public hearing, one comment was received:

##### **Commenter 1:**

Scott Kalis, Occupational Safety and Health Services Manager, City of Virginia Beach, Virginia

I ask that the Board adopt and implement a penalty reduction system similar to the current program in place for application with private businesses, and allow public entities the same manner of consideration when determining final penalty assessments and recording of citations.

Per Va. Code §40.1-49.4.A.4(a), VOSH can adjust proposed penalties once a GBP is determined for a particular hazard. I am requesting that this same methodology used for private industry employers be utilized for penalties assigned to public sector employers – where appropriate. Most public sector employers are not small business (type) organizations and will not readily qualify for a size of business reduction, thus leaving three other criteria to be weighed in consideration before penalties are assigned.

Again - I recommend that language be included in any proposed Va. Code amendments to include the same penalty reduction system opportunity. Specifically, I am referencing the to-be amended 16VAC25-60, et seq., Administrative Regulation for the VOSH Program, State and Local Government Penalties.

##### **Department Response:**

The Department generally agrees with the Commenter’s request, and intends to apply the same penalty calculation procedures to state and local government employers as it does to private sector employers, with the exception noted that penalties will not be issued for other-than-serious violations and “non-high gravity” serious violations as was represented to the General Assembly during the legislative process to amend Va. Code §40.1-2.1.

The intended purpose of the legislation and regulation is to introduce a more serious deterrent

effect to significantly reduce occupationally related accidents, injuries and illnesses in the public sector. As is evident from the following tables, while Virginia employers regularly experience injury and illness rates well below national averages, the rate of injuries for Virginia state and local government employees is considerably higher than the Virginia private sector:

	National	Virginia	Difference
<b>2015 Overall TCR* Rate</b>	3.3	2.6	-21.2%
<b>2015 Private Industry TCR* Rate</b>	3	2.4	-20.0%
<b>2015 Construction TCR Rate</b>	3.5	2.9	-17.1%
<b>2014 Manufacturing TCR Rate</b>	3.8	3.6	-5.3%
<b>2014 State and Local Government TCR Rate</b>	5.1	4.3	-15.7%

	Virginia	State/Local Government	Difference
<b>2015 Overall TCR Rate</b>	2.6	4.3	65.4%
<b>2015 Private Industry TCR* Rate</b>	2.4	4.3	79.2%
<b>2015 Construction TCR Rate</b>	2.9	4.3	48.3%
<b>2015 Manufacturing TCR Rate</b>	3.8	4.3	13.2%

Source: <https://www.bls.gov/iif/oshwc/osh/os/ostb4732.pdf>

Source: <https://www.bls.gov/iif/oshwc/osh/os/pr156va.pdf>

\* TCR - total recordable cases

\* DART - days away from work, job transfer, or restriction

Should the Department's current approach to penalties for state and local government not achieve the desired deterrent effect, it will approach the Safety and Health Codes Board about the possibility of revising the regulation in the future to allow for penalties to be issued for "non-high gravity" serious and other than serious violations.

As a result of the 60-day written comment period from September 4, 2017 to November 3, 2017, two comments were received:

**Commenter 2:**

Fred Brown, opposition to proposed rule.

I oppose this proposal on the following grounds noted in the DPB Economic Impact Analysis.

I must first state, I applaud any effort to ensure the safety of the human workforce. As a veteran of high-risk work environments, I appreciate the scale of responsibility public managers must assume for the welfare of their employees and of those that author and enforce safety regulations. The language of the proposed rule appears to originate from good intentions (and I have no doubt it does). But I fear the only penalties that would be felt are with those small agencies and municipalities who can ill-afford pre-determined monetary penalties in lieu of penalties in the form of percentages relative to a portion of a select budget of the violator.

I would also send caution of the culture that may be created from this policy. The adage “what gets inspected, gets done” may create a culture whereby specific violations are ignored in favor of those identified.

My final concern is that agency departments with large, geographically separated departments (i.e. VDOT, public universities, etc.) would be penalized for remote violations occurring outside their department. And how might municipalities respond after large penalties are assessed? Are citizens expected to pay more taxes because of a public managers’ negligence? Are there laws that would prevent increased fees and taxes after such penalties?

Thank you for your time and service.

**Department Response:**

The Department will address each issue in the order it was raised.

First, with respect to the concern that only small agencies or municipalities who can ill afford the cost will feel the effect of penalties in lieu of penalties in the form of a percentage relative to a portion of the budget; the Department’s current penalty calculation procedures for private employers take into account the size of the employer, the history of violations and the good faith of the employer. State and local government employers will, in certain situations, be able to take advantage of some of those reductions.

In addition, the Code of Virginia contains statutory maximums for penalties that can be issued on a per violation basis (see Va. Code §40.1-49.4), which serves to cap the amount of penalties that can be issued in any one case. The Department also uses an informal settlement conference process with state and local government employers that can be used to take into account the cost associated with correcting violations toward the final penalty levels agreed to. Finally, the Code of Virginia does not currently allow for a penalty calculation process that would assess penalties relative to a portion of a select budget of the violator.

Second, with respect to the concern that certain violations will be ignored in favor of those identified, there is nothing unique in the final regulation that would treat state and local government employers any differently with respect to this issue than private sector employers are treated. All employers have a statutory and regulatory duty to provide a safe and healthy workplace environment for employees, regardless of the way that hazards are identified. In those situations where VOSH conducts a comprehensive inspection of a worksite and issues violations, all violations will have to be corrected. In situations where a limited portion of a worksite is inspected (e.g., in response to an employee complaint), identified violations will have to be corrected and the employer will be placed on notice that hazards in other portions of the worksite should be identified

and corrected as well. In such cases, the employer will have the opportunity to correct hazards without having to incur monetary penalties.

Third, with regard to geographically separated departments, this is a situation again where there is no statutory distinction between private and public sector employers when it comes to the responsibility to provide a safe and healthy workplace, even for mobile employees or worksites that are geographically separated. It is the employer's responsibility to assure that employees and supervisors receive proper safety and health training and the proper personal protective equipment to complete job tasks in a safe and healthy manner, regardless of the physical location. The primary purpose of introducing penalties to state and local government employers is to encourage positive and proactive approaches to providing safe and healthy workplaces, particularly in instances where worksites are geographically separated.

Fourth, with regard to the concern that citizens may pay more taxes because of a public manager's negligence, taxing authority is not within the legal purview of the Department. However, VOSH citations and penalties when issued are public documents accessible by the news media and private citizens. The appropriate forum to address how penalties issued to a local government are paid for is through the governing structure of the locality (mayor, city council, board of supervisors, etc.).

Fifth, with regard to the question of whether there are any laws to prevent increased fees and taxes after such penalties, the Department is not aware of any such laws at this time.

**Commenter 3:**

David Malewitz, procedures for the application of penalties for state and local government

In response to the proposed regulation to amend the administrative regulation for the Virginia Occupational Safety and Health (VOSH) Program; State and Local Government Penalties, I am in favor of this amendment. My reasoning stems from the simplicity of the amendment to include penalties on only infractions that have been repeated or are considered "high gravity". State and local governments should be taking appropriate precautions to prevent the occurrence of these infractions. Unfortunately, one cannot depend on an agreement of correction without some stipulation attached to it. State and local governments are held to the same principles as private organizations. In some cases, they should be held to higher principles due to their relationship with the public that they serve. In any case, all organizations should be held accountable for not adhering to safety regulations and protocols. Repeated offenses must be rectified and serious infractions dealt with in an appropriate manner. If that means fines have to be imposed, then do what must be done to ensure compliance.

My only recommendation would be to create a separate fund that these funds are placed into so that the money can be appropriated to help disadvantaged workers who cannot afford the medical bills associated with a "high gravity" injury. If they were injured as a result of the state or local government failing to adequately secure a safe working environment, then they should not have to bear the brunt of the expenses.

Thank you for your time and consideration of my recommendation.



**Department Response:**

With regard to the request that some of the penalty monies be set aside “so that the money can be appropriated to help disadvantaged workers who cannot afford the medical bills associated with a “high gravity” injury;” such a fund would have to be set up through a statutory change. Currently, state and local government employees injured on the job are covered by workers’ compensation which should serve to cover the medical bills associated with the injury, although the Department recognizes that the effect of a serious injury on the employee and his or her family can be extensive, and not always fully compensated.<sup>1</sup>

**V. Basis, Purpose and Impact of the Proposed Rulemaking.**

**A. Basis**

The Safety and Health Codes Board is authorized by Title 40.1-22(5) to:

“... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the federal OSH Act of 1970...as may be necessary to carry out its functions established under this title”.

“In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence that no employee will suffer material impairment of health or functional capacity”.

“However, such standards shall be at least as stringent as the standards promulgated by the federal OSH Act of 1970 (P.L.91-596). In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experiences gained under this and other health and safety laws.”

Recent incidents which have resulted in the death of government employees, as well as other accident situations, have highlighted a need for an additional incentive for compliance with the safety and health laws and regulations. From January 1, 2007 to August 1, 2014, twenty-nine fatalities and catastrophes occurred in state and local government employment.

The deterrent effect of a penalty can reduce this number by encouraging compliance. The Department introduced this legislation in 2007 based on what we viewed at the time as a

---

<sup>1</sup> Adding Inequality to Injury: The Costs of Failing to Protect Workers on the Job, OSHA; <https://www.dol.gov/osha/report/20150304-inequality.pdf>; Leigh JP, Marcin JP. Workers’ compensation benefits and shifting costs for occupational injury and illness. Journal of Occupational and Environmental Medicine 2012;54:445-450.

high number of fatalities among government employees. Unfortunately, the rate of fatalities and catastrophes for state and local employees has increased from an average of 2.2 per year before the Department introduced the legislation to 3.9 per year since then.

Action by the General Assembly during the 2016 Session amended the language in the existing statute to allow the issuance of monetary penalties to state and local government employers for certain occupational safety and health program violations. On March 29, 2016, a statutory change approved by the General Assembly was signed by Governor McAuliffe with an effective date of July 1, 2016. *[Refer to Attachment-1 to this package.]*

**B. Purpose**

The purpose of amending the Administrative Regulation is to establish procedures for the application of penalties for state and local government employers in accordance with §40.1-2.1 of the *Code of Virginia*.

**C. Impact on Employers**

An average of three (3) willful violations have been issued by VOSH per year in the public sector. Since 2007 there have been 24 willful violations, all of which have been issued to local government employers. An average of 1.4 repeated violations are issued per year to local government and 3.3 to state agencies.

Approximately five percent (5%) of the serious violations issued are classified as high gravity. VOSH estimates that 15 such violations in state and local government would be subject to penalty per year. The average penalty issued for high gravity serious items is \$6,300.

VOSH estimates up to three willful violations per year and up to five repeat violations per year. The average penalty for a "high gravity" willful violation is \$63,000 and for a repeat is \$12,600. VOSH estimates that total penalties on a per year basis could range from zero to \$346,500.<sup>2</sup>

In 2015, the National Safety Council (NSC) reported that the average cost of a medically consulted occupational injury in 2013 was \$42,000. (*NSC Injury Facts, 2015 Edition, p. 69 - includes estimates of wage losses, medical expenses, administrative expenses, and employer costs; excludes property damage costs except to motor vehicles*). See reference at:

[http://www.nsc.org/Membership%20Site%20Document%20Library/2015%20Injury%20Facts/NSC\\_InjuryFacts2015Ed.pdf](http://www.nsc.org/Membership%20Site%20Document%20Library/2015%20Injury%20Facts/NSC_InjuryFacts2015Ed.pdf)

If the proposed imposition of penalties has the anticipated deterrent effect, pro-active steps to develop and implement injury and illness prevention programs can have a

---

<sup>2</sup> Va. Code §40.1-49.4.A.4(a) provides that the calculation of penalties shall take into account the size of the business of the employer being charged, the gravity of the violation, the good faith of the employer, and the history of previous violations.



significant positive impact in reducing injury and illness rates and the significant associated costs for state and local government employers.

In addition, the Department can provide some resources to state and local government employers to assist them in identifying and correcting workplace hazards through the use of the VOSH Consultation Services Program before an accident or VOSH enforcement inspection occurs.<sup>3</sup>

The Washington State Plan Division of Occupational Safety and Health (DOSH), which is tied directly into the states' workers' compensation system, conducted a study on "The Impact of DOSH Enforcement and Consultation Visits on Workers' Compensation Claims Rates and Costs, 1999-2008", May, 2011. The study reviewed ten annual studies on the topic and found:

DOSH consultation visits [at fixed worksites] were associated with a 24.8% larger decrease in non-MSD [Musculoskeletal Disorder] compensable claims rates relative to employers with no DOSH activity."

....

DOSH consultation visits [at non-fixed worksites] were associated with a 11% larger decrease in non-MSD [Musculoskeletal Disorder] compensable claims rates relative to employers with no DOSH activity."

**D. Impact on Employees**

Employees will benefit from the identification and correction of workplace hazards as a result of cited violations and issued penalties, the development and implementation of injury and illness prevention programs, and the anticipated reduction in injuries and illnesses.

According to OSHA publication "Adding Inequality to Injury: The Costs of Failing to Protect Workers on the Job", "the costs of workplace injury and illness are borne primarily by injured workers, their families, and tax-payer supported safety net programs....workers' compensation payments cover only a small fraction (about 21%) of lost wages and medical costs of work injuries and illnesses, workers, their families and private health insurance pay for nearly 63 percent of these costs, with taxpayers shouldering the remaining 16%."<sup>4</sup>

---

<sup>3</sup> [http://www.doli.virginia.gov/vosh\\_coop/vosh\\_consultation\\_p1.html](http://www.doli.virginia.gov/vosh_coop/vosh_consultation_p1.html)

<sup>4</sup> [https://www.osha.gov/Publications/inequality\\_michaels\\_june2015.pdf](https://www.osha.gov/Publications/inequality_michaels_june2015.pdf)

A recent study indicates that Workers' Compensation payments only cover approximately 21% of the cost of workplace injuries. If Virginia's workers' compensation payout in 2012 of 913.8 million dollars (as reported by the National Safety Council) represents only 21% of the cost, the total impact of compensated injuries in 2012 in Virginia was 4.351 billion dollars.

**E. Impact on the Department of Labor and Industry**

No significant impact on agency operations is anticipated. Adding penalties to citations issued does not significantly increase the workload for an individual VOSH Compliance Safety and Health Officer (CSHO). As referenced above, it is only anticipated that approximately 21 violations per year will carry a penalty for state and local government employers.

**Contact Person:**

Mr. Jay Withrow  
Director, Legal Support, VPP, ORA, OPP and OWP  
(804) 786-9873  
[withrow.jay@doli.virginia.gov](mailto:withrow.jay@doli.virginia.gov)

---

That same study found that approximately 50% of the cost of workplace accidents is born by the employee and his/her family, so of the estimated 4.351 billion cost to Virginia in 2012, approximately 2.175 billion dollars was born by Virginia workers and their families.

## RECOMMENDED ACTION

The staff of the Department of Labor and Industry recommends that the Safety and Health Codes Board consider for adoption, as a final regulation of the Board, the attached amendments to 16VAC25-60, *et seq.*, Administrative Regulation for the Virginia Occupational Safety and Health (VOSH) Program; in accordance with the authority of the Board under §40.1-22(5) and the requirements of the Administrative Process Act §2.2-4000, *et seq.*

The Department also recommended that the Board state in any motion it may make that it will receive, consider, and respond to petitions by any interested person with respect to reconsideration or revision of any regulation under the purview of the Board.

**16VAC25-60, et seq., Administrative Regulation for the  
Virginia Occupational Safety and Health (VOSH) Program**

As Adopted as a Final Regulation of the  
Safety and Health Codes Board

Date: November 30, 2017



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

**16VAC25-60, et seq., Administrative Regulation for the  
Virginia Occupational Safety and Health (VOSH) Program**

**Part I**  
**Definitions**

**16VAC25-60-10. Definitions.**

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Abatement period" means the period of time defined or set out in the citation for correction of a violation.

"Board" means the Safety and Health Codes Board.

"Bureau of Labor Statistics" means the Bureau of Labor Statistics of the United States Department of Labor.

"Citation" means the notice to an employer that the commissioner has found a condition or conditions that violate Title 40.1 of the Code of Virginia or the standards, rules or regulations established by the commissioner or the board.

"Commissioner" means the Commissioner of Labor and Industry. Except where the context clearly indicates the contrary, any such reference shall include his authorized representatives.

"Commissioner of Labor and Industry" means only the individual who is Commissioner of Labor and Industry.

"Department" means the Virginia Department of Labor and Industry.

"De minimis violation" means a violation which has no direct or immediate relationship to safety and health.

"Employee" means an employee of an employer who is employed in a business of his employer.

"Employee representative" means a person specified by employees to serve as their representative.

"Employer" means any person or entity engaged in business who has employees but does not include the United States.

"Establishment" means, for the purpose of record keeping requirements, a single physical location where business is conducted or where services or industrial operations are performed, e.g., factory, mill, store, hotel, restaurant, movie theater, farm, ranch, bank, sales office, warehouse, or central administrative office. Where distinctly separate activities are performed at a single physical location, such as contract activities operated from the same physical location as a lumberyard; each activity is a separate establishment. In the public sector, an establishment is either (i) a single physical location



where a specific governmental function is performed; or (ii) that location which is the lowest level where attendance or payroll records are kept for a group of employees who are in the same specific organizational unit, even though the activities are carried on at more than a single physical location.

"Failure to abate" means that the employer has failed to correct a cited violation within the period permitted for its correction.

"FOIA" means the Freedom of Information Act.

"Gravity based penalty" means an unadjusted penalty that is calculated based on the severity of the hazard and the probability that an injury or illness would result from the hazard.

"High gravity violation" means a violation with a gravity based penalty calculated at the statutory maximums contained in §§40.1-49.4 H through J.

"Imminent danger condition" means any condition or practice in any place of employment such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through standard enforcement procedures provided by Title 40.1 of the Code of Virginia.

"OSHA" means the Occupational Safety and Health Administration of the United States Department of Labor.

"Other violation" means a violation which is not, by itself, a serious violation within the meaning of the law but which has a direct or immediate relationship to occupational safety or health.

"Person" means any individual, corporation, partnership, association, cooperative, limited liability company, trust, joint venture, government, political subdivision, or any other legal or commercial entity and any successor, representative, agent, agency, or instrumentality thereof.

"Public employer" means the Commonwealth of Virginia, including its agencies, authorities, or instrumentalities or any political subdivision or public body.

"Public employee" means any employee of a public employer. Volunteer members of volunteer fire departments, pursuant to § 27-42 of the Code of Virginia, members of volunteer rescue squads who serve without pay, and other volunteers pursuant to the Virginia State Government Volunteers Act are not public employees. Prisoners confined in jails controlled by any political subdivision of the Commonwealth and prisoners in institutions controlled by the Department of Corrections are not public employees unless employed by a public employer in a work-release program pursuant to § 53.1-60 or § 53.1-131 of the Code of Virginia.

"Recordable occupational injury and illness" means (i) a fatality, regardless of the time between the injury and death or the length of illness; (ii) a nonfatal case that results in lost work days; or (iii) a nonfatal case without lost work days which results in transfer to another job or termination of



employment, which requires medical treatment other than first aid, or involves loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illness which is reported to the employer but is not otherwise classified as a fatality or lost work day case.

"Repeated violation" means a violation deemed to exist in a place of employment that is substantially similar to a previous violation of a law, standard or regulation that was the subject of a prior final order against the same employer. A repeated violation results from an inadvertent or accidental act, since a violation otherwise repeated would be willful.

"Serious violation" means a violation deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment, unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation. The term "substantial probability" does not refer to the likelihood that illness or injury will result from the violative condition but to the likelihood that, if illness or injury does occur, death or serious physical harm will be the result.

"Standard" means an occupational safety and health standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.

"VOSH" means Virginia Occupational Safety and Health.

"Willful violation" means a violation deemed to exist in a place of employment where (i) the employer committed an intentional and knowing, as contrasted with inadvertent, violation and the employer was conscious that what he was doing constituted a violation; or (ii) the employer, even though not consciously committing a violation, was aware that a hazardous condition existed and made no reasonable effort to eliminate the condition.

"Working days" means Monday through Friday, excluding legal holidays, Saturday, and Sunday.

#### **16VAC25-60-20. Jurisdiction.**

All Virginia statutes, standards, and regulations pertaining to occupational safety and health shall apply to every employer, employee and place of employment in the Commonwealth of Virginia except where:

1. The United States is the employer or exercises exclusive jurisdiction;
2. The federal Occupational Safety and Health Act of 1970 does not apply by virtue of § 4(b)(1) of that Act. The commissioner shall consider federal OSHA case law in determining where jurisdiction over specific working conditions has been preempted by the regulations of a federal agency; or

3. The employer is a public employer, as that term is defined in this chapter. In such cases, the Virginia laws, standards and regulations governing occupational safety and health are applicable as stated including 16VAC25-60-10, 16VAC25-60-30, 16VAC25-60-260, 16VAC25-60-280, 16VAC25-60-290, and 16VAC25-60-300.

## Part II

### General Provisions

....

#### **16VAC25-60-30. Applicability to public employers.**

A. All occupational safety and health standards adopted by the board shall apply to public employers and their employees in the same manner as to private employers.

B. All sections of this chapter shall apply to public employers and their employees. Where specific procedures are set out for the public sector, such procedures shall take precedence.

C. The following portions of Title 40.1 of the Code of Virginia shall apply to public employers: §§ 40.1-10, 40.1-49.4 A(1), 40.1-49.4 A(4), except that the reference to subsection G does not apply, 40.1-49.4 C, 40.1-49.4 D, 40.1-49.4 H through J, 40.1-49.8, 40.1-51, 40.1-51.1, 40.1-51.2, 40.1-51.2:1, 40.1-51.3, 40.1-51.3:2, and 40.1-51.4:2.

D. Section 40.1-51.2:2 A of the Code of Virginia shall apply to public employers except that the commissioner shall not bring action in circuit court in the event that a voluntary agreement cannot be obtained.

E. Sections 40.1-49.4 A(4), except that the reference to subsection G does not apply, 40.1-49.4 C, 40.1-49.4 D, 40.1-49.4 F, 40.1-49.4 H through J, 40.1-49.9, 40.1-49.10, 40.1-49.11, 40.1-49.12, and 40.1-51.2:2 of the Code of Virginia shall apply to public employers other than the Commonwealth and its agencies.

F. If the commissioner determines that an imminent danger situation, as defined in § 40.1-49.4 F of the Code of Virginia, exists for an employee of the Commonwealth or one of its agencies, and if the employer does not abate that imminent danger immediately upon request, the Commissioner of Labor and Industry shall forthwith petition the governor to direct that the imminent danger be abated.

G. If the commissioner is unable to obtain a voluntary agreement to resolve a violation of § 40.1-51.2:1 of the Code of Virginia by the Commonwealth or one of its agencies, the Commissioner of Labor and Industry shall petition for redress in the manner provided in this chapter.

....

**Part VI**  
**Citation and Penalty**

16VAC25-60-260. Issuance of citation and proposed penalty.

A. Each citation shall be in writing and describe with particularity the nature of the violation or violations, including a reference to the appropriate safety or health provision of Title 40.1 of the Code of Virginia or the appropriate rule, regulation, or standard. In addition, the citation must fix a reasonable time for abatement of the violation. The commissioner shall have authority to propose penalties for cited violations in accordance with §40.1-49.4 of the Code of Virginia and this Chapter. The citation will contain substantially the following: "NOTICE: This citation will become a final order of the commissioner unless contested within fifteen working days from the date of receipt by the employer." The citation may be delivered to the employer or his agent by the commissioner or may be sent by certified mail or by personal service to an officer or agent of the employer or to the registered agent if the employer is a corporation.

1. No citation may be issued after the expiration of six months following the occurrence of any alleged violation. The six-month time frame is deemed to be tolled on the date the citation is issued by the commissioner, without regard for when the citation is received by the employer. For purposes of calculating the six-month time frame for citation issuance, the following requirements shall apply:

a. The six-month time frame begins to run on the day after the incident or event occurred or notice was received by the commissioner (as specified below), in accordance with § 1-210 A of the Code of Virginia. The word "month" shall be construed to mean one calendar month in accordance with § 1-223 of the Code of Virginia.

b. An alleged violation is deemed to have "occurred" on the day it was initially created by commission or omission on the part of the creating employer, and every day thereafter that it remains in existence uncorrected.

c. Notwithstanding subdivision 1 b of this subsection, if an employer fails to notify the commissioner of any work-related incident resulting in a fatality or in the in-patient hospitalization of three or more persons within eight hours of such occurrence as required by § 40.1-51.1 D of the Code of Virginia, the six-month time frame shall not be deemed to commence until the commissioner receives actual notice of the incident.

d. Notwithstanding subdivision 1 b of this subsection, if the commissioner is first notified of a work-related incident resulting in an injury or illness to an employee(s) through receipt of an Employer's Accident Report (EAR) form from the Virginia Workers' Compensation Commission as provided in § 65.2-900 of the Code of Virginia, the six-month time frame shall not be deemed to commence until the commissioner actually receives the EAR form.

e. Notwithstanding subdivision 1 b of this subsection, if the commissioner is first notified of a work-related hazard, or incident resulting in an injury or illness to an employee(s), through receipt of a



complaint in accordance with 16VAC25-60-100 or referral, the six-month time frame shall not be deemed to commence until the commissioner actually receives the complaint or referral.

B. A citation issued under subsection A to an employer who violates any VOSH law, standard, rule or regulation shall be vacated if such employer demonstrates that:

1. Employees of such employer have been provided with the proper training and equipment to prevent such a violation;
2. Work rules designed to prevent such a violation have been established and adequately communicated to employees by such employer and have been effectively enforced when such a violation has been discovered;
3. The failure of employees to observe work rules led to the violation; and
4. Reasonable steps have been taken by such employer to discover any such violation.

C. For the purposes of subsection B only, the term "employee" shall not include any officer, management official or supervisor having direction, management control or custody of any place of employment which was the subject of the violative condition cited.

D. The penalties as set forth in § 40.1-49.4 of the Code of Virginia shall also apply to violations relating to the requirements for record keeping, reports or other documents filed or required to be maintained and to posting requirements.

E. In determining the amount of the proposed penalty for a violation the commissioner will ordinarily be guided by the system of penalty adjustment set forth in the VOSH Field Operations Manual. In any event the commissioner shall consider the gravity of the violation, the size of the business, the good faith of the employer, and the employer's history of previous violations.

The commissioner shall have authority to propose civil penalties to public employers for willful, repeat and failure-to-abate violations in accordance with §§40.1-49.4 I and J; and for serious violation(s) that cause death to an employee or are classified as high gravity in accordance with §40.1-49.4 H.

F. On multi-employer worksites for all covered industries, citations shall normally be issued to an employer whose employee is exposed to an occupational hazard (the exposing employer). Additionally, the following employers shall normally be cited, whether or not their own employees are exposed:

1. The employer who actually creates the hazard (the creating employer);
2. The employer who is either:

a. Responsible, by contract or through actual practice, for safety and health conditions on the entire worksite, and has the authority for ensuring that the hazardous condition is corrected (the controlling employer); or

b. Responsible, by contract or through actual practice, for safety and health conditions for a specific area of the worksite, or specific work practice, or specific phase of a construction project, and has the authority for ensuring that the hazardous condition is corrected (the controlling employer); or

3. The employer who has the responsibility for actually correcting the hazard (the correcting employer).

G. A citation issued under subsection F of this section to an exposing employer who violates any VOSH law, standard, rule or regulation shall be vacated if such employer demonstrates that:

1. The employer did not create the hazard;

2. The employer did not have the responsibility or the authority to have the hazard corrected;

3. The employer did not have the ability to correct or remove the hazard;

4. The employer can demonstrate that the creating, the controlling and/or the correcting employers, as appropriate, have been specifically notified of the hazards to which his employees were exposed;

5. The employer has instructed his employees to recognize the hazard and, where necessary, informed them how to avoid the dangers associated with it;

6. Where feasible, an exposing employer must have taken appropriate alternative means of protecting employees from the hazard; and

7. When extreme circumstances justify it, the exposing employer shall have removed his employees from the job.

....

**16VAC25-60-270. Contest of citation or proposed penalty; general proceedings.**

A. An employer to whom a citation, **abatement order** or proposed penalty has been issued may contest the citation by notifying the commissioner in writing of the contest. The notice of contest must be mailed or delivered by hand within 15 working days from the receipt of the citation or proposed penalty. No mistake, inadvertence, or neglect on the part of the employer shall serve to extend the 15 working day period in which the employer must contest.

B. The notice of contest shall indicate whether the employer is contesting the alleged violation, the proposed penalty or the abatement time.



C. Employees may contest abatement orders by notifying the commissioner in the same manner as described at subsection A.

D. E. The employer's contest of a citation or proposed penalty shall not affect the citation posting requirements of 16VAC25-60-40 unless and until the court ruling on the contest vacates the citation.

E. D. When the commissioner has received written notification of a contest of citation or proposed penalty, he will attempt to resolve the matter by settlement, using the procedures of 16VAC25-60-330 and 16VAC25-60-340.

F. E. If the matter is not settled or it is determined that settlement does not appear probable, the commissioner will initiate judicial proceedings by referring the contested issues to the appropriate Commonwealth's Attorney and arranging for the filing of a bill of complaint and issuance of a subpoena to the employer.

G. F. A contest of the proposed penalty only shall not stay the time for abatement.

....

**16VAC25-60-280. General contest proceedings applicable to the public sector.**

~~A. The commissioner will not propose penalties for citations issued to public employers.~~

A. B. Public employers may contest citations, or abatement orders or proposed penalties by notifying the commissioner in writing of the contest. The notice of contest must be mailed or delivered by hand within 15 working days from receipt of the citation or abatement order. No mistake, inadvertence, or neglect on the part of the employer shall serve to extend the 15 working day period during which the employer may contest.

B. C. The notice of contest shall indicate whether the public employer is contesting the alleged violations, the proposed penalty or the abatement order.

C. D. Public employees may contest abatement orders by notifying the commissioner in the same manner as described at subsection A. B.

D. E. The commissioner shall seek to resolve any controversies or issues rising from a citation issued to any public employer in an informal conference as described in 16VAC25-60-330.

E. F. The contest by a public employer shall not affect the requirements to post the citation as required at 16VAC25-60-40 unless and until the commissioner's or the court ruling on the contest vacates the citation. A contest of a citation may stay the time permitted for abatement pursuant to § 40.1-49.4 C of the Code of Virginia.

F. A contest of the proposed penalty only shall not stay the time for abatement.

## VIRGINIA ACTS OF ASSEMBLY -- 2016 SESSION

### CHAPTER 526

*An Act to amend and reenact § 40.1-2.1 of the Code of Virginia, relating to the occupational safety and health program applicable to employees of agencies of the Commonwealth, political subdivisions, and other public bodies.*

[S 607]

Approved March 29, 2016

**Be it enacted by the General Assembly of Virginia:**

**1. That § 40.1-2.1 of the Code of Virginia is amended and reenacted as follows:**

**§ 40.1-2.1. Application of title to Commonwealth and its agencies, etc.; safety and health program for public employees.**

The provisions of this title and any rules and regulations promulgated pursuant thereto shall not apply to the Commonwealth or any of its agencies, institutions, or political subdivisions, or any public body, unless, and to the extent that, coverage is extended by specific regulation of the Commissioner or the Safety and Health Codes Board. The Commissioner is authorized to establish and maintain an effective and comprehensive occupational safety and health program applicable to employees of the Commonwealth, its agencies, institutions, political subdivisions, or any public body. Such program shall be subject to any State plan submitted to the federal government for State enforcement of the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596), or any other regulation promulgated under Title 40.1. The Commissioner or the Board shall establish procedures and adopt regulations for enforcing the program which shall include provisions for (i) the issuance of proposed penalties; (ii) the payment of such penalties or a negotiated sum in lieu of such penalties; (iii) the deposit of such payments into the general fund of the state treasury; (iv) fair hearings, including judicial review; and (v) other sanctions to be applied for violations.





**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF LABOR AND INDUSTRY**

**C. Ray Davenport**  
COMMISSIONER

Main Street Centre  
600 East Main Street, Suite 207  
Richmond, Virginia 23219  
PHONE (804) 371-2327  
FAX (804) 371-6524

**Virginia Safety and Health Codes Board**

**BRIEFING PACKAGE**

**For November 30, 2017**

-----

**Occupational Exposure to Beryllium for the Shipyard Industry (Part 1915) and the Construction Industry (Part 1926); Delay of Compliance Date**

**I. Action Requested**

The Virginia Occupational Safety and Health (VOSH) Program requests the Safety and Health Codes Board to consider for adoption federal OSHA's delay of compliance date indefinitely for the Occupational Exposure to Beryllium for the Shipyard Industry, Part 1915, and the Construction Industry, Part 1926, as published in 82 FR 14439 on March 21, 2017. OSHA will not enforce the January 9, 2017 Shipyard and Construction standards, without further notice, while it determines whether to amend the January 9, 2017 rule.

The proposed effective date is February 15, 2018.

**II. Summary**

These actions to delay the compliance date of the Beryllium standard for both the Shipyard (Part 1915) and the Construction (Part 1926) industries provide OSHA with additional time to conduct a further review of the concerns raised for Parts 1915 and 1926 by public commenters. The General Industry standard for Beryllium will remain unaffected by the delay in compliance date for the Shipyard and Construction industries.

The new Beryllium rule went into effect nationally on May 20, 2017, following the delays of the original federal effective date of March 10, 2017, and became effective on May 15, 2017 in Virginia. However, compliance obligations for both nationally, where federal OSHA has direct enforcement authority, and for VOSH in Virginia do not begin until March 12, 2018. OSHA has

decided not to enforce the January 9, 2017 Shipyard and Construction standards, delaying them indefinitely, and has proposed a new rulemaking for the Shipyard Industry, Part 1915, and for the Construction Industry, Part 1926, continuing the delay of enforcement for Parts 1915 and 1926 while the new rulemaking is underway.

### III. Basis, Purpose and Impacts

#### A. Basis and Background

On January 9, 2017, federal OSHA published in the *Federal Register* its final rule on the Occupational Exposure to Beryllium and Beryllium Compounds for three industries: General Industry (1910), Shipyard (1915) and Construction (1926). (82 FR 2470) Federal OSHA concluded that employees exposed to beryllium and beryllium compounds at the preceding permissible exposure limits (PELs) were at significant risk of material impairment of health, specifically chronic beryllium disease and lung cancer. OSHA concluded that the new 8-hour time-weighted average (TWA) PEL of 0.2 µg/m<sup>3</sup> reduced this significant risk to the maximum extent feasible.

Subsequently, in accordance with the January 20, 2017 Presidential directive entitled, "Regulatory Freeze Pending Review," federal agencies were directed to consider for delay, beyond the initial 60-day period, the effective date for regulations that had not yet taken effect. OSHA reviewed the beryllium standards, which had not become effective yet, and were scheduled to become effective on March 10, 2017. (82 FR 8346, January 24, 2017)

In compliance with this Presidential directive, on February 1, 2017, OSHA published a final rule in the *Federal Register*, which temporarily delayed the effective date for the Beryllium final rule for the Construction and Shipyards industries until March 21, 2017. Beryllium final rule for the General Industry was not included in the delay of the effective date. This delay gave OSHA the opportunity for review and consideration of new regulations, as required by the Presidential directive. (82 FR 8901)

On February 16, 2017, the Safety and Health Codes Board adopted federal OSHA's Final Rule on the Occupational Exposure to Beryllium for Parts 1910, 1915, and 1926, with an effective date of May 15, 2017, and with effective dates identical to federal OSHA's for implementation and compliance. Commencement of all obligations of this standard – March 12, 2018, except for requirements to provide change rooms and showers – March 11, 2019, and engineering controls – March 10, 2020.

On March 21, 2017, after considering all comments received, OSHA finalized a delay of the effective date for the final rule on Beryllium in the *Federal Register* (82 FR 14439) for the Construction and Shipyard industries only. The General Industry Standard effective date was not included and remains the same. These three standards were adopted by the Board on February 16, 2017.

On June 27, 2017, federal OSHA published in the Federal Register (82 FR 29182) a proposed rule that would modify OSHA's recent Beryllium standards for the Shipyard

and Construction Industries. OSHA proposes to maintain the requirements for permissible exposure limits (PELs) of  $0.2 \mu\text{g}/\text{m}^3$  and short-term exposure limit (STEL) of  $2.0 \mu\text{g}/\text{m}^3$ . However, in this proposal, federal OSHA is now considering removing the following ancillary provisions from the Shipyard and Construction sectors that appeared in the January 9, 2017 Final Rule:

- exposure monitoring;
- regulated areas (and competent person in construction);
- a written exposure plan;
- protective equipment and work clothing;
- hygiene areas and practices;
- housekeeping;
- medical surveillance;
- medical removal; and
- worker training

In lieu of the above, OSHA believes that there are other shipyard and construction standards applicable to these operations, including:

- Ventilation standard in construction (1926.57)
- Criteria for personal protective equipment standard in construction (1926.95)
- Mechanical paint removers standard in shipyards (1915.34)
- Ventilation and protection in welding, cutting and heating in shipyards (1915.51)
- Hand and body protection standard in shipyards (1915.157)
- Confined and enclosed spaces standards in shipyards (Part 1915 Subpart B)
- Ventilation standard in general industry for exhaust ventilation and housekeeping, applicable to shipyards (1910.94(a)(4), (a)(7))
- Respiratory Protection standard in general industry, applicable to shipyards and construction industry (1910.134)
- Hazard Communication standard in general industry, applicable to shipyards and construction industry (1910.1200)

**B. Purpose**

The delay provides OSHA with additional time for further review of the new Beryllium Final Rule for the Shipyard (Part 1915) industry and the Construction industry (Part 1926), including review of concerns raised by commenters regarding Parts 1915 and 1926.

**C. Impact on Employers**

The delay of the compliance date for the Shipyard and Construction Industries will not have a negative impact on employers, and will provide them with additional time in which they must be in compliance with OSHA's new proposed Beryllium standard PELs. While requesting input on a proposal to revoke the ancillary provisions in the January 2017 Beryllium Final Rule applicable to the Shipyard and Construction Industries, federal OSHA will retain the new final rule's permissible exposure limit (PEL) of  $0.2 \mu\text{g}/\text{m}^3$  as an

8-hour time weighted average and the short-term exposure limit (STEL) of 2.0 µg/m<sup>3</sup> (15 minutes) for these two sectors. Retaining the lower PEL and STEL for the Construction and Shipyard sectors would be achieved through revisions of Table Z in §1915.1000, Air Contaminants, in the Shipyard industry and Appendix A to §1926.55, Gases, Vapors, Fumes, Dusts, and Mists, in Construction.

**D. Impact on Employees**

The federal delay of the compliance date for the Beryllium standard for Parts 1915 and 1926 will not impact shipyard and construction workers who are exposed to beryllium dusts, fumes, mists, or solutions. OSHA has determined that issues raised will not hinder the protection of workers affected by the rule because the delay does not alter the Beryllium Final Rule’s compliance dates for the revised PELs.

**E. Impact on the Department of Labor and Industry**

No impact on the Department is anticipated from the adoption of the delay of the compliance date for the Beryllium standard for the Shipyard and Construction industries.

Federal regulations 29 CFR 1953.23(a) and (b) require that Virginia, within six months of the occurrence of a federal program change, to adopt identical changes or promulgate equivalent changes which are at least as effective as the federal change. The Virginia Code reiterates this requirement in § 40.1-22(5). Adopting this delay of the compliance date for the Beryllium rule for the Shipyards and Construction industries will allow Virginia to conform to the federal program change.

**F. Implementation/Compliance Schedule**

To help employers comply with the updated final rule and protect their workers, OSHA provided staggered compliance dates to ensure that employers have sufficient time to meet the requirements and get the right protections in place. As noted in your initial adoption package at the February 16, 2017 Board meeting. The following chart was included. The action requested is relegated to the highlighted box below:

Beryllium Implementation/Compliance Schedule for Parts 1915 and 1926	OSHA Direct Enforcement States	Virginia
Effective date of standards	<del>March 10, 2017</del> May 20, 2017	February 15, 2018
Commencement of all obligations of this standard <u>except</u> :	March 12, 2018	<b>March 12, 2018</b>
Requirement to provide change rooms and showers in paragraph (i)	March 11, 2019	March 11, 2019
Requirement for engineering controls required in paragraph (f)	March 10, 2020	March 10, 2020



OSHA is considering extending the compliance dates in the January 9, 2017 Beryllium final rule by a year for the construction and shipyard standards. This would give affected employers additional time to come into compliance with its requirements.

Contact Person:

Mr. Ron Graham  
Director, Occupational Health Compliance  
804.786.0574  
[ron.graham@doli.virginia.gov](mailto:ron.graham@doli.virginia.gov)

### **RECOMMENDED ACTION**

Staff of the Department of Labor and Industry recommends that the Safety and Health Codes Board adopt federal OSHA's federal OSHA's delay of compliance date for the Occupational Exposure to Beryllium for the Shipyards Industry, Part 1915, and the Construction Industry, Part 1926, as authorized by Virginia Code §§ 40.1-22(5) and 2.2-4006.A.4(c), with an effective date of February 15, 2018.

The Department also recommends that the Board state in any motion it may make to amend this regulation that it will receive, consider and respond to petitions by any interested person with respect to reconsideration or revision of this or any other regulation which has been adopted in accordance with the above-cited subsection A.4(c) of the Administrative Process Act.