

Department of Labor and Industries
Boiler/Unfired Pressure Vessel Program
PO Box 44410
Olympia WA 98504-4410



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400

Fax: 360-902-5292

www.Lni.wa.gov/Boilers

Please review the following instructions before completing this form.

- You need to complete the [Chief Inspector Clarification and Interpretation Request Form](#) before completing this form.
- The Board of Boiler Rules will consider written requests for interpretation and revisions to the definitions, rules, and regulations found in [WAC 296-104](#).
- Inquiries are limited to requests for interpretation of the rules or to propose revisions to the existing rules.
- Interpretation requests will be brought to the board according to [RCW 70.79.361](#).
- For board consideration, the form must be submitted **45 days prior to the Board of Boiler Rules meeting date**.

How to submit this form:

Email requests to:

Boiler@Lni.wa.gov.

Mail requests via United States Postal Service:

Department of Labor and Industries
Boiler/Unfired Pressure Vessel Program
Chief Boiler Inspector
PO Box 44410
Olympia WA 98504-4410

Mail requests via UPS or FedEx:

Department of Labor and Industries
Boiler/Unfired Pressure Vessel Program
Chief Boiler Inspector
7273 Linderson Way SW
Tumwater WA 98501-5414



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400
Fax: 360-902-5292
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Submitter Information:

Name Mike Carlson	Date 6/18/2020	
Company Name L & I		
Company Address PO Box 44410, Olympia, WA 98504		
Email Address camx235@lni.wa.gov	Phone Number 360-902-4983	Fax Number 360-902-5292

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-020

Administration—What are the filing requirements for boilers and unfired pressure vessels before their installation/reinstallation?

(1) "Boiler/pressure vessel, water heater installation or reinstallation permit" shall mean a permit approved by the chief inspector and submitted by the installer prior to starting installation or reinstallation of any boiler/pressure vessel or water heater within the jurisdiction of Washington.

(2) The "installer" is any entity or person who physically or mechanically installs a boiler, pressure vessel or water heater that meets the in-service inspection requirements of this chapter. The installer is responsible for the installation/reinstallation permit fee per WAC [296-104-700](#).

(3) The following pressure retaining items, as defined in WAC [296-104-010](#), require a boiler/pressure vessel and water heater installation or reinstallation permit:

- Expansion tanks;
- Historical boilers and unfired pressure vessels;
- Hot water heaters;
- Indirect water heaters;
- Jacketed steam kettles;
- Low pressure boilers;
- Nonstandard boilers and unfired pressure vessels;
- Pool heaters;
- Power boilers;
- Reinstalled boilers and unfired pressure vessels;
- Secondhand boilers and unfired pressure vessels;
- Standard boilers and unfired pressure vessels;
- Unfired pressure vessels;
- Unfired steam boilers.

(4) The installer shall notify the chief inspector utilizing the permit form to request a permit inspection not less than ten working days prior to placing equipment in operation. Equipment shall

not be operated other than for testing, prior to an inspection being conducted which finds the boiler or pressure vessel to be in compliance with this chapter.

(5) If an emergency installation (due to leakage, failure, etc.) situation occurs, the installer will notify the chief inspector within forty-eight hours after installation, utilizing the permit form to request an immediate inspection of the installation.

(6) The installer may be subject to civil penalties per WAC [296-104-701](#) for failure to comply with the filing requirements of the installation permit.

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

In-service Inspectors find non-compliances on permitted new installation inspections. Upon re-inspection to clear the violation, the inspection fees are sent to the owner, not the installer. State inspectors perform the majority of permitted inspections, the inspection fees are for only state inspectors. The purpose of this request is to have the ability to assess fees to installers who do not comply with the installation requirements RCW 70.79 and WAC 286-104. The current language in WAC 296-102-020 only has the installation permit the responsibility of the installer.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

Should the "installer" be responsible for the re-inspection fees resulted from the clearing of violation that was found during the installation first inspection.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

WAC 296-104-020

Administration—What are the filing requirements for boilers and unfired pressure vessels before their installation/reinstallation?

(1) "Boiler/pressure vessel, water heater installation or reinstallation permit" shall mean a permit approved by the chief inspector and submitted by the installer prior to starting installation or reinstallation of any boiler/pressure vessel or water heater within the jurisdiction of Washington.

(2) The "installer" is any entity or person who physically or mechanically installs a boiler, pressure vessel or water heater that meets the in-service inspection requirements of this chapter. The installer is responsible for the installation/reinstallation permit fee per WAC [296-104-700](#).

(3) **If a non-conformance condition or deficiency is found on the initial permit inspection, the installer will be responsible for implementing immediate corrective action and any re-subsequent inspection fees after corrections per the fee schedule in WAC 296-104-700.**

(4) The following pressure retaining items, as defined in WAC [296-104-010](#), require a boiler/pressure vessel and water heater installation or reinstallation permit:

- Expansion tanks;
- Historical boilers and unfired pressure vessels;
- Hot water heaters;
- Indirect water heaters;
- Jacketed steam kettles;
- Low pressure boilers;
- Nonstandard boilers and unfired pressure vessels;

- Pool heaters;
- Power boilers;
- Reinstalled boilers and unfired pressure vessels;
- Secondhand boilers and unfired pressure vessels;
- Standard boilers and unfired pressure vessels;
- Unfired pressure vessels;
- Unfired steam boilers.

(5) The installer shall notify the chief inspector utilizing the permit form to request a permit inspection not less than ten working days prior to placing equipment in operation. Equipment shall not be operated other than for testing, prior to an inspection being conducted which finds the boiler or pressure vessel to be in compliance with this chapter.

(6) If an emergency installation (due to leakage, failure, etc.) situation occurs, the installer will notify the chief inspector within forty-eight hours after installation, utilizing the permit form to request an immediate inspection of the installation.

(7) The installer may be subject to civil penalties per WAC [296-104-701](#) for failure to comply with the filing requirements of the installation permit.

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Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400
Fax: 360-902-5292
www.Lni.wa.gov/Boilers

Submitter Information:

Name Mike Carlson	Date 11/3/2021	
Company Name L & I		
Company Address PO Box 44410, Olympia, WA 98504		
Email Address camx235@lni.wa.gov	Phone Number 360-902-5270	Fax Number 360-902-5292

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-102

Inspection—What are the standards for in-service inspection?

Where a conflict exists between the requirements of the standards listed below and this chapter, this chapter shall prevail. The duties of the in-service inspector do not include the installation's compliance with other standards and requirements (environmental, construction, electrical, undefined industrial standards, etc.), for which other regulatory agencies have authority and responsibility to oversee.

- 1) The standard for inspection of nonnuclear boilers and unfired pressure vessels is the National Board Inspection Code (NBIC), current edition Part 2, excluding Section 6, Supplements 1, 5, 6, and 7 which may be used as nonmandatory guidelines.
- (2) The standard for installation, in-service inspection, and repair of pressure relief devices is the National Board Inspection Code (NBIC), current edition Part 4, excluding Section 6, Supplements 1 and 3 which may be used as nonmandatory guidelines.
- (3) The standard for inspection of historical steam boilers of riveted construction preserved, restored, or maintained for hobby or demonstration use, shall be Part 2, Section 6, Supplement 2 of the National Board Inspection Code (NBIC) current edition.
- (4) The standard for inspection of nuclear items is ASME section XI. The applicable ASME Code edition and addenda shall be as specified in the owner in-service inspection program plan.
- (5) Where a petroleum or chemical process industry owner/user inspection agency so chooses, the standard for inspection of unfired pressure vessels used by the owner shall be the API-510 Pressure Vessel Inspection Code, current edition. This code may be used on or after the date of issue.
- (6) TAPPI TIP 0402-16, revised 2011 may be used for both pulp dryers and paper machine dryers when requested by the owner. When requested by the owner, this document becomes a requirement and not a guideline.

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

The 2021 NBIC Part 4 Pressure Relief Devices has revised the supplements section for this code cycle. Supplement 3- Guide to Jurisdictions for Authorization of Owners or Users to Make Adjustments to Pressure Relief Valves was removed from Section 6 supplements. The purpose of this revision is to remove supplement 3 as a non-mandatory guideline from WAC 296-104-102. This will align our law with the current code edition.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

The Boiler Program would like the Board of Boiler Rules to adopt the revision to WAC 296-104-102 as listed below.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

WAC 296-104-102

Inspection—What are the standards for in-service inspection?

Where a conflict exists between the requirements of the standards listed below and this chapter, this chapter shall prevail. The duties of the in-service inspector do not include the installation's compliance with other standards and requirements (environmental, construction, electrical, undefined industrial standards, etc.), for which other regulatory agencies have authority and responsibility to oversee.

- 1) The standard for inspection of nonnuclear boilers and unfired pressure vessels is the National Board Inspection Code (NBIC), current edition Part 2, excluding Section 6, Supplements 1, 5, 6, and 7 which may be used as nonmandatory guidelines.
- (2) The standard for installation, in-service inspection, and repair of pressure relief devices is the National Board Inspection Code (NBIC), current edition Part 4, excluding Section 6, Supplements ~~1 and 3~~ which may be used as nonmandatory guidelines.
- (3) The standard for inspection of historical steam boilers of riveted construction preserved, restored, or maintained for hobby or demonstration use, shall be Part 2, Section 6, Supplement 2 of the National Board Inspection Code (NBIC) current edition.
- (4) The standard for inspection of nuclear items is ASME section XI. The applicable ASME Code edition and addenda shall be as specified in the owner in-service inspection program plan.
- (5) Where a petroleum or chemical process industry owner/user inspection agency so chooses, the standard for inspection of unfired pressure vessels used by the owner shall be the API-510 Pressure Vessel Inspection Code, current edition. This code may be used on or after the date of issue.

(6) TAPPI TIP 0402-16, revised 2011 may be used for both pulp dryers and paper machine dryers when requested by the owner. When requested by the owner, this document becomes a requirement and not a guideline.



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400
Fax: 360-902-5292
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Submitter Information:

Name Mike Carlson	Date 1/23/2022	
Company Name L & I		
Company Address PO Box 44410, Olympia, WA 98504		
Email Address camx235@lni.wa.gov	Phone Number 360-902-5270	Fax Number 360-902-5292

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-200

Construction—What are the standards for new construction?

The standards for new construction are:

- (1) ASME Boiler and Pressure Vessel Code, current edition, Sections I, III, IV, VIII, Division 1, 2, 3, X, XII;
- (2) ASME PVHO-1 Safety Standard for Pressure Vessels for Human Occupancy, current edition; and
- (3) Standards of construction approved by the chief inspector and meeting the National Board Criteria for Registration of Boilers, Pressure Vessels and Other Pressure Retaining Items.

These codes and standards may be used on or after the date of issue and become mandatory twelve months after adoption by the board as specified in RCW [70.79.050\(2\)](#). ASME Code Cases may be approved for use when accepted by the chief inspector. The board recognizes that the ASME Code states that new editions of the code become mandatory six months after the date of issue. For nuclear systems, components and parts the time period for addenda becoming mandatory is defined in the Code of Federal Regulations.

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

In 2021 ASME code cycle a new ASME section XIII was adopted. This is a complete new standard for overpressure protection and pressure relief devices (PRDs) The purpose of this revision is to add ASME Section XIII to construction codes in WAC 296-102-200.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

The Boiler Program would like the Board of Boiler Rules to adopt the revision to WAC 296-104-200 as listed below.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

WAC 296-104-200

Construction—What are the standards for new construction?

The standards for new construction are:

(1) ASME Boiler and Pressure Vessel Code, current edition, Sections I, III, IV, VIII, Division 1, 2, 3, X, XII, **XIII**;

(2) ASME PVHO-1 Safety Standard for Pressure Vessels for Human Occupancy, current edition; and

(3) Standards of construction approved by the chief inspector and meeting the National Board Criteria for Registration of Boilers, Pressure Vessels and Other Pressure Retaining Items.

These codes and standards may be used on or after the date of issue and become mandatory twelve months after adoption by the board as specified in RCW [70.79.050\(2\)](#). ASME Code Cases may be approved for use when accepted by the chief inspector. The board recognizes that the ASME Code states that new editions of the code become mandatory six months after the date of issue. For nuclear systems, components and parts the time period for addenda becoming mandatory is defined in the Code of Federal Regulations.



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400
Fax: 360-902-5292
www.Lni.wa.gov/Boilers

Submitter Information:

Name Mike Carlson	Date April 5, 2022	
Company Name L & I		
Company Address PO Box 44410, Olympia, WA 98504		
Email Address camx235@lni.wa.gov	Phone Number 360-902-5270	Fax Number 360-902-9252

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-255

Installation—What are the required clearances for boilers?

When boilers are replaced or new boilers installed in either existing or new buildings, a minimum top clearance as specified below shall be provided between the top of boiler proper and ceiling. Sufficient access must be provided for inspection, maintenance, operations, and repair. Required clearances shall be:

(1) Minimum clearance on top of power boilers having a steam generating capacity in excess of 5,000 pounds per hour or having a heating surface in excess of 1,000 sq. ft. or input in excess of 5,000,000 btu per hour shall be. . . .7 feet.

(2) Minimum clearance on top of low pressure heating boilers which exceed any one of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface; and power boilers which do not exceed any of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface; shall be. . . .3 feet.

(3) Minimum clearance on top of boilers which do not exceed the above limits and miniature boilers; shall be. . . .2 feet.

(4) Minimum clearance from manhole openings and any wall, ceiling, or piping that will prevent a person from entering the boiler shall be. . . .5 feet.

(5) Minimum clearances at sides, front and back wall shall be the manufacturers' recommendations, but in no case less than eighteen inches.

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

The Department would like to provide better direction on the clearances for newly installed boilers. A lot of newer boiler designs do not require eighteen inches of clearance on all sides. And a non-compliance and a variance request would be needed to make the item compliant with this 18 inch requirement. Having this language puts a burden on the inspector and installer of the boiler. This change would take out an unnecessary step.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

The department would like the board to adopt the language changes as listed in Item # 4 below.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

WAC 296-104-255

Installation—What are the required clearances for boilers?

When boilers are replaced or new boilers installed in either existing or new buildings, a minimum top clearance as specified below shall be provided between the top of boiler proper and ceiling. Sufficient access must be provided for inspection, maintenance, operations, and repair. Required clearances shall be:

(1) Minimum clearances at sides, front and back wall shall be the manufacturers' service clearance recommendations. If no recommendations are stated by the manufacturer, then eighteen inches shall be the minimum clearance.~~Minimum clearance on top of power boilers having a steam generating capacity in excess of 5,000 pounds per hour or having a heating surface in excess of 1,000 sq. ft. or input in excess of 5,000,000 btu per hour shall be. . . .7 feet.~~

(2) Minimum clearance on top of low pressure heating boilers which exceed any one of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface; and power boilers which do not exceed any of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface; shall be. . . .3 feet.

(3) Minimum clearance on top of boilers which do not exceed the above limits and miniature boilers; shall be. . . .2 feet.

(4) Minimum clearance from manhole openings and any wall, ceiling, or piping that will prevent a person from entering the boiler shall be. . . .5 feet.

(5) Minimum clearance on top of power boilers having a steam generating capacity in excess of 5,000 pounds per hour or having a heating surface in excess of 1,000 sq. ft. or input in excess of 5,000,000 btu per hour shall be. . . .7 feet.~~Minimum clearances at sides, front and back wall shall be the manufacturers' recommendations, but in no case less than eighteen inches~~



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-6400

Fax: 360-902-5292

www.Lni.wa.gov/Boilers

Submitter Information:

Name Mike Carlson	Date January 25, 2023	
Company Name L & I		
Company Address PO Box 44410, Olympia, WA 98504		
Email Address camx235@lni.wa.gov	Phone Number 360-902-5270	Fax Number 360-902-9252

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-260

Installation—What are the required clearances for unfired pressure vessels?

When unfired pressure vessels are replaced or new vessels are installed in either existing or new buildings, manufacturers' recommendations shall be used, but in no case less than eighteen inches shall be provided between the top of the unfired pressure vessel and the ceiling and adjacent walls or other structures. All unfired pressure vessels having manholes shall have five feet clearance from manhole openings and any wall, ceiling, or piping that will prevent a person from entering the unfired pressure vessel.

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

The boiler program would like to provide better direction on the clearances for newly installed pressure vessels. A lot of existing mechanical rooms do not have the proper clearance or it does not make sense to provide it if inspection and maintenance can be performed safely. Moving it out 18 inches can cause a hazard in the room. This is especially true for Air receivers and expansion tanks, hot water storage tanks. This language would give better guidance and direction.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

The department would like the board to adopt the language changes as listed in Item # 4 below.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

WAC 296-104-260

Installation—What are the required clearances for unfired pressure vessels?

When unfired pressure vessels are replaced or new vessels are installed in either existing or new buildings, clearances shall be provided to allow access for safe operation, inspection, maintenance, and/or repair. Passageways around all sides of pressure vessels shall have an unobstructed width of not less than 18 inches. Exception: Unfired pressure vessels may be installed with a side clearance of less than 18 inches if the lesser clearance does not violate the manufacturer's installation instructions or inhibit inspection, maintenance, and/or repair. Any exception shall be notated in object comments in the jurisdictional database. All unfired pressure vessels having a manhole shall have five foot clearance at the manhole opening to allow an individual to have safe access to the inside of the vessel to perform inspection and/or maintenance.

~~When unfired pressure vessels are replaced or new vessels are installed in either existing or new buildings, clearances shall be provided to allow access for safe operation, inspection, maintenance, or repair. Passageways around all sides of pressure vessels shall have an unobstructed width of not less than 18 inches. Exception: Unfired pressure vessels may be installed with a side clearance of less than 18 inches if the lesser clearance does not violate the manufacturer's installation instructions or inhibit inspection, maintenance, or repair. They will follow the requirements of WAC 296-104-271. All unfired pressure vessels having a manhole shall have five foot clearance at the manhole opening to allow an individual to have safe access to the inside of the vessel to perform inspection and/or maintenance.~~



Board of Boiler Rules Interpretation and Revision Request Form

Phone: 360-902-5270

Fax: 360-902-5292

www.Lni.wa.gov/Boilers

Submitter Information:

Name Michael Carlson	Date 8/6/23	
Company Name Labor & Industries		
Company Address 7273 Linderson Way SW, Tumwater, WA 98501		
Email Address Michael.Carlson@Lni.wa.gov	Phone Number 360-902-1970	Fax Number 360-902-5292

Requested Information:

1. **Scope** - Identify a single rule or closely related rules that are in dispute. The rule number and the date of the rule should be clearly identified.

WAC 296-104-700, What are the inspection fees—Examination fees—Certificate fees—Expenses?
(See fee table for details: <https://apps.leg.wa.gov/WAC/default.aspx?cite=296-104-700>).

2. **Background** - State the purpose of the inquiry, which should be either to obtain an interpretation or to propose a revision to existing rules. Provide concise information needed for the board's understanding of the inquiry, including references to the WAC section as well as other code and/or standards paragraphs.

L&I is requesting authorization to file a Preproposal Statement of Inquiry (CR-101) to consider increasing fees by 6.3% to support operating expenses for inspections and other program services. This is the Office of Financial Management's (OFM) maximum allowable fiscal growth rate for fiscal year (FY) 2025.

The Boiler and Unfired Pressure Vessel Fund is a dedicated fund. The current fee levels are not adequate enough to cover the anticipated program expenses. A fee increase is necessary to ensure the programs' revenues match expenditures; otherwise, service levels may need to be reduced.

The fee increase will have a fiscal impact on businesses, but is necessary to cover the operating expenses of the program. The only alternative other than rulemaking is to reduce services, which increases the risk to public safety.

3. **Inquiry Structure** - Provide statements in a condensed and precise question format and, where appropriate, compose in such a way that "yes" or "no" (perhaps with provisos) would be an acceptable reply.

A fee increase will enable the boiler program to continue providing quality and timely services to customers to protect structures, workers and the public from boiler and/or unfired pressure vessel incidents.

4. **Proposed Reply** - State what is believed the rule requires. If in the inquirer's opinion a revision to the definitions, rules, and regulations is needed, recommended wording should be provided.

See attachment for a complete list of possible new fee amounts.