

CITY OF SEATTLE
ORDINANCE 126359
COUNCIL BILL 120085

AN ORDINANCE relating to boiler and steam engine operations; amending Chapter 6.420 of the Seattle Municipal Code.

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. Chapter 6.420 of the Seattle Municipal Code, last amended by the ordinance introduced as Council Bill 119992, is amended as follows:

CHAPTER 6.420 STEAM ENGINEERS AND BOILER ((FIREMEN)) OPERATORS

6.420.010 Scope, purpose, and authority ((-))

The regulation and licensing of steam engineers and boiler ((firemen)) operators and the operation of boilers and steam engines are governed by this Chapter 6.420.

The purpose of this Chapter 6.420 is to provide standards for safe operation of boilers and steam engines.

The Director of the Seattle Department of Construction and Inspections is authorized to implement and enforce all the provisions of this Chapter 6.420.

6.420.020 Unlawful activities ((-))

A. It is unlawful to have charge of, or operate, or permit anyone to have charge of, or operate, any boiler or steam engine without a license issued under this ((chapter)) Chapter 6.420.

B. It is unlawful to hire or contract with a person who does not have a license issued under this ((chapter)) Chapter 6.420 to have charge of, or operate, any boiler or steam engine.

C. It is unlawful for any person to knowingly:

1. Prevent or attempt to prevent any person licensed under this ((chapter)) Chapter 6.420 from performing any act required to be performed by this ((chapter)) Chapter 6.420; or

2. Require or attempt to require any person licensed under this ~~((chapter))~~ Chapter 6.420 to perform any act prohibited by this ~~((chapter))~~ Chapter 6.420.

D. It is unlawful to fail to abide by a stop work order issued by the Director.

6.420.030 Definitions ((-))

Words and phrases used in this ~~((chapter))~~ Chapter 6.420 have the following meanings:

“Boiler” means a closed vessel in which water is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum by the direct application of heat. The term “boiler” also includes fired units for heating or vaporizing liquids other than water where these systems are complete within themselves.

“Boiler plant” means one ~~((1))~~ or more boilers and connecting piping and vessels within the same premises.

“Boiler supervisor” means a steam engineer Grade I, II, or III who has passed additional examinations as required by the Director pursuant to the provisions of this ~~((chapter))~~ Chapter 6.420.

“BHP” means brake horsepower.

“Certified automatic boiler” means a boiler equipped with certain controls and limit devices as required by the Seattle Boiler Code, and for which the Director has finalized an Automatic Certification Application Permit.

“Certified monitored boiler” is a certified automatic boiler that meets the requirements ~~((of Section 330))~~ of the Seattle Boiler Code and for which the Director has finalized a Monitored Certification Application Permit.

“City Boiler Inspector” means a City of Seattle Boiler/Pressure Systems Inspector employed by the Department.

1 “Department” means the Seattle Department of Construction and Inspections.

2 “Director” means the Director of the Seattle Department of Construction and Inspections
3 and authorized representatives.

4 “Hoist and portable boiler” means a boiler used to provide steam for the operation of
5 various types of equipment such as floating cranes, piledrivers, and other similar types of
6 equipment used in the construction industry.

7 “Hot-water supply boiler” is a boiler having a volume exceeding ~~((one hundred twenty~~
8 ~~(120)))~~ 120 gallons, or a heat input exceeding ~~((two hundred thousand (200,000)))~~ 200,000 BTU
9 per hour, or a water temperature exceeding ~~((two hundred ten (210)))~~ 210 degrees Fahrenheit but
10 not exceeding a temperature of ~~((two hundred fifty (250)))~~ 250 degrees Fahrenheit, ~~((or))~~ and a
11 pressure not exceeding ~~((one hundred sixty (160)))~~ 160 psi, that provides hot water to be used
12 externally to itself.

13 “kBtuh” means thousand BTU per hour.

14 “Low-pressure hot-water heating boiler” is a boiler from which hot water is circulated for
15 heating purposes at pressures not exceeding ~~((one hundred sixty (160)))~~ 160 psi and temperatures
16 not exceeding ~~((two hundred fifty (250)))~~ 250 degrees Fahrenheit, that provides hot water to be
17 used externally to itself.

18 “Low-pressure steam-heating boiler” is a boiler furnishing steam at pressures not
19 exceeding ~~((fifteen (15)))~~ 15 psi.

20 “Nonregenerative system” is a system in which the heat rejected by an engine is lost to
21 the atmosphere.

“Out of service.” A boiler is “out of service” if it is manually shut down for inspection, maintenance, or repair, except for limited repairs and adjustments as set forth in Section ~~((6.420.150))~~ 6.420.120.

“Potable water heater” (fired, electric, solar, and indirect) is a closed vessel in which water is heated by the combustion of fuels, electricity, or any other source, and withdrawn for use external to the system. Potable water heaters do not exceed any of the following criteria or capacities: a nominal water-containing capacity of ~~((one hundred twenty (120)))~~ 120 gallons, a heat input of ~~((two hundred thousand (200,000)))~~ 200,000 BTU per hour, an operating temperature of ~~((two hundred ten (210)))~~ 210 degrees Fahrenheit, and a pressure of ~~((one hundred sixty (160)))~~ 160 psi.

“Power hot-water boiler” (high-temperature water boiler) is a boiler used for heating water or liquid to a pressure exceeding ~~((one hundred sixty (160)))~~ 160 psi or to a temperature exceeding ~~((two hundred fifty (250)))~~ 250 degrees Fahrenheit.

“Power steam boiler” is a boiler in which steam or other vapor is generated at pressures exceeding ~~((fifteen (15)))~~ 15 psi. For purposes of this ~~((chapter))~~ Chapter 6.420, the term shall not include a small power boiler.

“psi” means pounds per square inch.

“Regenerative system” is a system in which the heat rejected by an engine is used in a boiler.

“Seattle Boiler Code” is the Seattle Boiler and Pressure Vessel Code (Title 22, Subtitle ~~((IVA))~~ IVB of the Seattle Municipal Code).

“Small power boiler” is a power steam boiler with pressures not exceeding ~~((one hundred fifty (150)))~~ 150 psi and not exceeding ~~((eight hundred thousand (800,000)))~~ 800,000 BTU per hour heat input.

“Steam engine” means all prime movers using vapors from a boiler for motive power, steam-driven compressors, and steam pumps except steam pumps and similar auxiliaries used only as appurtenances for the operation of a boiler.

6.420.040 Applications and examinations (-)

A. Persons desiring a license, or change of limitation as described in Section 6.420.070, shall make written application to the Director on forms provided by the Director. Applications shall be accompanied by ~~((a receipt showing payment of the required examination fee as required by the Fee Subtitle, Chapter 22.900E))~~ an affidavit attesting to the applicant’s training and experience, and other supporting credentials as may be necessary to determine the applicant’s fitness. Proof of experience is not required for Grade V or Small Power Boiler Operator licenses.

B. Applicants for an operator’s license shall pass an examination administered by the Director, ~~((and shall show to the satisfaction of the Director that they meet the minimum qualifications for one of the grades of license specified in Table A of Section 6.420.070.))~~ The examination fee in Section 22.900E.050 shall be paid in advance and shall be assessed each time the examination is administered.

C. Examinations shall be practical in their character and shall relate to those matters that will fairly test the minimum capacity, skill, experience, and competence of each person examined to safely operate and properly care for boilers and steam engines, within the scope of the license sought.

1 ~~((D. The Director may require affidavits regarding an applicant's character, training,~~
2 ~~experience and record, and such other supporting credentials as may be necessary to determine~~
3 ~~the applicant's fitness.))~~

4 D. An applicant who successfully completes the examination and shows to the
5 satisfaction of the Director that they meet the minimum qualifications for one of the grades of
6 license specified in Table A of Section 6.420.070, shall be issued the appropriate license upon
7 payment of the license fee in Section 22.900E.050.

8 E. The Director shall refuse to certify the applicant for a steam engineer's or boiler
9 ~~((fireman's))~~ operator's license if the result of the examination is such that the Director
10 determines the applicant does not have sufficient knowledge of, and experience in, the care or
11 operation of boilers or steam engines, or if the applicant is found to be unfit to operate boilers or
12 steam engines safely. ~~((The action of the Director shall be final.))~~

13 F. It is sufficient cause to refuse a steam engineer's or boiler ~~((fireman's))~~ operator's
14 license, or any renewal thereof, if the applicant, through neglect or incompetence while in charge
15 of a boiler or steam engine, has caused serious damage to property or has endangered the lives of
16 others.

17 **6.420.050 Exemptions from license requirements ((-))**

18 A steam engineer's or boiler ~~((fireman's))~~ operator's license is not required of any person in
19 charge of, or operating, the following:

20 A. Any boiler or steam engine subject to federal regulations;

21 B. Any boiler not subject to reinspection by the Seattle Boiler Code;

22 C. Low-pressure hot water, low-pressure steam and hot-water supply boiler plants having
23 inputs of less than ~~((two million five hundred thousand (2,500,000)))~~ 2,500,000 BTU per hour;

D. Any boiler having an input of less than ~~((one hundred thousand (100,000)))~~ 100,000 BTU per hour and a maximum pressure of ~~((one hundred (100)))~~ 100 pounds per square inch or less;

E. Potable water heaters;

F. Ancillary equipment that may be connected to the operation of a boiler or boiler system such as, but not limited to, pumps, filters, pre-heaters, heat exchangers, and related pressure vessels;

G. Non-regenerative gas turbines; ~~((:))~~ or

H. Boiler equipment being installed by and under the control of the boiler manufacturer or the manufacturer's representative, a boiler installation contractor, or a boiler or burner installer making the installation under the manufacturer's written instructions and recommendations.

6.420.060 Periodic refresher training required ~~((:))~~

All persons licensed according to this ~~((chapter))~~ Chapter 6.420 shall attend an approved refresher course every five ~~((5))~~ years. A document indicating proof of completion of the approved refresher course shall be provided to the Director.

6.420.070 Grades of licenses and limitations ~~((:))~~

A. The grades of steam engineer~~((s'))~~ and boiler ~~((firemen's))~~ operator licenses are as follows:

Grade I Boiler Supervisor

Grade II Boiler Supervisor

Grade III Boiler Supervisor

Grade I Steam Engineer

Grade II Steam Engineer

Grade III Steam Engineer

Grade IV Boiler ((Fireman)) Operator

Small Power Boiler ((Fireman)) Operator

Grade V Boiler ((Fireman)) Operator

B. License Limitations. The Director may impose limitations on licenses restricting the licensee to the operation and maintenance of particular equipment at a stated location, or to the operation and maintenance of a certain class of boilers or steam engines, or to specified permitted services in connection with the operation and maintenance of boilers and steam engines. Limitations shall be based upon the applicant's qualifications and shall be reasonably related to the protection of the public in the safe operation and maintenance of boilers and steam engines. Limitations may include, but are not limited to, the following:

1. Operation of boilers only.
2. Operation of electric boilers only.
3. Operation of hot water boilers only.
4. Work at one ((1)) address only.

C. Applicants for a license shall possess the minimum qualifications for each grade of license as specified in Table A for 6.420.070.

Table A for 6.420.070—Qualifications for Steam Engineer and Boiler ((Fireman)) Operator Licenses

Grade of License ((applied for)) <u>Applied</u> <u>For</u>	Minimum Qualifications
Grade I Boiler Supervisor	At least one year of experience as a Grade I Steam Engineer <u>or</u> <u>Grade II Boiler Supervisor</u> pursuant to the provisions of this ((ordinance)) <u>Chapter 6.420</u> .

Table A for 6.420.070—Qualifications for Steam Engineer and Boiler ((Fireman)) Operator Licenses	
Grade of License ((applied for)) <u>Applied For</u>	Minimum Qualifications
Grade II Boiler Supervisor	At least one year of experience as a Grade II Steam Engineer <u>or</u> Grade III Boiler Supervisor pursuant to the provisions of this ((ordinance)) <u>Chapter 6.420.</u>
Grade III Boiler Supervisor	At least one year of experience as a Grade III Steam Engineer pursuant to the provisions of this ((ordinance)) <u>Chapter 6.420.</u>
Grade I Steam Engineer	1. At least five years of employment in a position directly responsible for the operation of boilers, or 2. Educational substitution for experience as allowed by Section 6.420.080.A, ((item 1)) plus three years of experience. Licenses shall be limited to boilers only unless the applicant proves at least one year of experience in the operation of steam engines.
Grade II Steam Engineer	1. At least four years of employment in a position directly responsible for the operation of boilers, or 2. Educational substitution for experience as allowed by Section 6.420.080.A, ((item 1)) plus two years of experience. Licenses shall be limited to boilers only unless the applicant proves at least one year of experience in the operation of steam engines.
Grade III Steam Engineer	1. At least three years of employment in a position directly responsible for the operation of boilers, or 2. Educational substitution for experience as allowed by Section 6.420.080.A, ((item 1)) plus one year of experience. Licenses shall be limited to boilers only unless the applicant proves at least one year of experience in the operation of steam engines.
Grade IV Boiler ((Fireman)) <u>Operator</u>	1. At least one year of employment in a position directly responsible for the operation of boilers, or 2. Allowable educational substitution for experience as allowed by Section 6.420.080.A or 6.420.080.B, ((item 1 or 2)) Licenses shall be limited to boilers only unless the applicant proves at least one year of experience in the operation of steam engines.
Small Power Boiler ((Fireman)) <u>Operator</u>	No previous experience required.
Grade V Boiler ((Fireman)) <u>Operator</u>	No previous experience required.

6.420.080 Allowable educational substitution for experience ((:))

The educational qualifications described in this ((section)) Section 6.420.080 may substitute for the work experience required by Section 6.420.070, when approved by the Director.

A. Graduation from a recognized school of technology with a curriculum approved by the Steam Licensing Advisory Board.

B. Completion of a training course in the fundamentals of boiler operation approved by the Director may be substituted for one (((1))) year of boiler operating experience. The course shall include at least ((~~forty (40))~~) 40 hours of classroom work and either:

1. Eighty (((80))) hours of on-site training relating to the care and operation of boilers under the direct supervision of a steam engineer with a license of Grade I, II, or III; or

2. Forty (((40))) hours of lab work at a facility approved by the Director.

6.420.090 Special license ((:))

A. Those who have been employed at least two (((2))) years as licensed steam engineers or boiler ((~~firemen~~)) operators operating a boiler plant may apply for a special license if the capacity of the plant is enlarged or changed beyond the limits of their license. The special license shall permit the licensee to operate only such plant. The Director shall make an investigation of the changed boiler plant conditions together with such examination of the applicant as may be necessary to determine whether the applicant is qualified under this ((chapter)) Chapter 6.420 to operate the enlarged or changed boiler plant. When the investigation and examination reveal that the applicant is qualified to operate the plant in its changed condition, the Director shall approve the application and issue a special license.

B. Special licenses may be renewed only once. At the expiration of the renewed license, licensees shall upgrade their licenses in accordance with the requirements of Section 6.420.070.

If upgrades are not applied for, the licenses shall revert to the grade held prior to the issuance of the special license.

6.420.095 Reciprocity ((-))

The Director may establish procedures for recognizing ~~((gas-piping-mechanic))~~ steam engineer and boiler operator licenses issued by other jurisdictions whose licensing programs satisfy the purposes of this ~~((chapter))~~ Chapter 6.420.

6.420.100 Observation and inspection of boilers ((-))

A. The minimum requirements for operation and inspection of each type and capacity of equipment are as set forth in this Section 6.420.100 and Tables ~~((B and C of this Section))~~ A and B for 6.420.100.

B. Constant attendance. When constant attendance is required by this ~~((chapter))~~ Chapter 6.420, the engineer or boiler ~~((fireman))~~ operator in charge of a boiler, boiler plant, or steam engine shall not leave the boiler room or engine room when the boiler or steam engine is being operated without first either stopping the steam engine and shutting off all sources of heat in the boiler, or being relieved by a person duly licensed under this ~~((chapter))~~ Chapter 6.420.

Exception: The steam engineer or boiler ~~((fireman))~~ operator may take an occasional break without stopping the engine, shutting down the boiler or being relieved. In no case may any break last more than ~~((twenty-(20)))~~ 20 minutes.

C. Checked by boiler supervisor. When this chapter requires a boiler to be checked by a boiler supervisor, the boiler supervisor shall inspect all controls and safety devices pursuant to the requirements of ~~((Section))~~ subsection 6.420.120.D, as a minimum.

D. Checked by licensed operator. When this ~~((chapter))~~ Chapter 6.420 requires a boiler to be checked by a licensed operator, a person holding a license issued under this ~~((chapter))~~

1 Chapter 6.420 shall perform a physical examination of the boiler or engine to ensure proper
2 operation and maintenance pursuant to the requirements of Sections 6.420.110 and 6.420.150, as
3 a minimum.

4 E. Twice daily check. When this ~~((chapter))~~ Chapter 6.420 requires twice daily checks,
5 the inspections that are required to be recorded in the boiler logbook by Section 6.420.110 shall
6 be performed at least two ~~((2))~~ times each day. The first check of the day shall be made not less
7 than eight ~~((8))~~ hours after the last recorded check of the previous day; the second check of the
8 day shall be made at least six ~~((6))~~ hours after the first recorded check of the day. Additional
9 checks may be made to ensure safe operation of a boiler. Twice daily checks may not be
10 performed by a Boiler Supervisor unless the Boiler Supervisor is a full time employee of the
11 boiler owner.

12 F. Check once every two ~~((2))~~ hours. When this ~~((chapter))~~ Chapter 6.420 requires a
13 check every two ~~((2))~~ hours, a physical examination of the boiler or engine to ensure proper
14 operation and maintenance pursuant to the requirements of Sections 6.420.110 and 6.420.150, as
15 a minimum, shall be made at least once every two ~~((2))~~ hours.

16 G. For purposes of Tables ~~((B and C))~~ A and B for 6.420.100, the input ratings of boilers
17 shall be computed as follows:

18 1. For gas, propane, and similar burners, the rating shall be equal to the burner
19 input as rated and labeled by the burner manufacturer. Where actual fuel flow during burner
20 operation at the maximum firing rate can be reliably measured, the burner input may be
21 computed by such method.

22 2. For oil burners, the rating shall be equal to the gallons-per-hour rating of the
23 fuel nozzle or nozzles.

3. For electric boilers, the rating shall be equal to the electrical input in KW as rated and labeled by the boiler manufacturer.

4. In the case of multiple fuel burners, the rating shall be the greater of all computed inputs.

5. For boilers in battery (connected to a common header), the rating shall be the cumulative input, as measured in ~~((paragraphs 1, 2, 3, or 4 above))~~ subsections 6.420.100.G.1 through 6.420.100.G.4. For boilers in battery wired so that only a single boiler can operate at a given time, the license requirement shall be determined by the most restrictive individual license requirement for any boiler in the battery.

6. For regenerative systems, the BHP of the prime mover (gas turbine, engine, etc.) will determine the grade for downstream recovery boilers and steam turbines.

H. All checks of boilers pursuant to the requirements of this ~~((chapter))~~ Chapter 6.420 shall be logged and recorded as set forth in Section 6.420.110.

Table ((B)) <u>A</u> for 6.420.100 License Requirements ((For)) <u>for</u> Operation of Power Boilers and Steam Engines	
Type of Boiler	Minimum License Requirement
A. All Boilers	
0—100 psi and 0—100 kBtuh input	No license required
B. Electric Boilers	
Not exceeding 1.5 cu. ft. and not exceeding 100 psi	No license required
C. All Boilers except Small Power Boilers	
Less than 1,000 kBtuh input each; not certified as Automatic. No more than 2 steam boilers on same header. ¹	Check by a Grade IV Boiler ((Fireman)) <u>Operator</u> once every two hours
D. Small Power Boilers	
Maximum 800 kBtuh input; not certified as Automatic. No more than 2 steam boilers on same header	Semiannual check by a Grade III Boiler Supervisor and twice daily checks by a Small Power Boiler ((Fireman)) <u>Operator</u> ; or a Small Power Boiler ((Fireman)) <u>Operator</u> on premises

Table ((B)) A for 6.420.100	
License Requirements ((For)) for Operation of Power Boilers and Steam Engines	
Type of Boiler	Minimum License Requirement
E. Boilers ((certified)) <u>Certified</u> as Automatic	
1. Maximum 20,000 kBtuh input. No more than 2 steam boilers on same header with a combined capacity no more than 20,000 kBtuh ¹	Check by a Grade IV Boiler ((Fireman)) <u>Operator</u> once every two hours
2. More than 20,000 to 50,000 kBtuh input	Check by a Grade III Steam Engineer once every two hours
3. More than 50,000 to 300,000 kBtuh input	Check by a Grade II Steam Engineer once every two hours
4. More than 300,000 kBtuh input	Check by a Grade I Steam Engineer once every two hours
F. Boilers ((certified)) <u>Certified</u> as Monitored	
1. Maximum 20,000 kBtuh input. No more than 2 steam boilers on same header with a combined capacity no more than 20,000 kBtuh ¹	Monthly checks by a Grade III Boiler Supervisor and twice daily checks by a Grade IV Boiler ((Fireman)) <u>Operator</u>
2. More than 20,000 to 50,000 kBtuh input	Monthly checks by a Grade III Boiler Supervisor and twice daily checks by a Grade III Steam Engineer
3. More than 50,000 to 300,000 kBtuh input	Monthly checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Steam Engineer; or Weekly checks by a Grade II Boiler Supervisor and twice daily checks by a Grade III Steam Engineer.
4. More than 300,000 kBtuh input	Monthly checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer; or Weekly checks by a Grade I Boiler Supervisor and twice daily checks by a Grade II Steam Engineer.
G. All ((other boilers)) <u>Other Boilers</u>	
1. Maximum 20,000 kBtuh input. No more than 2 steam boilers on same header with a combined capacity no more than 20,000 kBtuh ¹	Constant attendance by a Grade IV Boiler ((Fireman)) <u>Operator</u>
2. More than 20,000 to 50,000 kBtuh input	Constant attendance by a Grade III Steam Engineer
3. More than 50,000 to 300,000 kBtuh input	Constant attendance by a Grade II Steam Engineer
4. More than 300,000 kBtuh input	Constant attendance by a Grade I Steam Engineer

Table ((B)) A for 6.420.100

License Requirements ((For)) for Operation of Power Boilers and Steam Engines

Type of Boiler	Minimum License Requirement
H. Steam ((engines)) <u>Engines</u>	
1. Maximum 250 BHP	Constant attendance by a Grade III Steam Engineer or the same attendance requirements as the boiler serving the engine
2. More than 250 to 1,500 BHP	Constant attendance by a Grade II Steam Engineer or the same attendance requirements as the boiler serving the engine
3. More than 1,500 BHP	Constant attendance by a Grade I Steam Engineer or the same attendance requirements as the boiler serving the engine

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Table ((C)) B for 6.420.100

License Requirements for Operation of Low Pressure Boilers

((TYPE OF BOILER))	((MINIMUM LICENSE REQUIRED))
<u>Type of Boiler</u>	<u>Minimum License Required</u>
A. All types of boilers	
((0--)) <u>Less than</u> 2,500 kBtuh input	No license required
B. Boilers Not Certified as Automatic or Monitored	
1. 2,500 to 5000 kBtuh max input. ((No boilers in battery--))	Grade V Boiler ((Fireman)) <u>Operator</u> on premises
2. More than 5,000 to 20,000 kBtuh max input. No more than 2 steam boilers on same header with a combined capacity no greater than 20,000 kBtuh. ¹	Constant attendance by a Grade IV Boiler ((Fireman)) <u>Operator</u>
3. More than 20,000 to 50,000 kBtuh max input.	Constant attendance by a Grade III Steam Engineer
4. More than 50,000 to 300,000 kBtuh max input.	Constant attendance by a Grade II Steam Engineer
5. More than 300,000 kBtuh max input.	Constant attendance by a Grade I Steam Engineer
C. Boilers ((certified)) <u>Certified</u> as Automatic	
1. 2,500 to 5000 kBtuh max input	Monthly checks by a Grade III Boiler Supervisor, or quarterly checks by a Grade III Boiler Supervisor and twice daily checks by a Grade V Boiler ((Fireman)) <u>Operator</u> , or a Grade V Boiler ((Fireman)) <u>Operator</u> on premises

Table ((C)) B for 6.420.100

License Requirements for Operation of Low Pressure Boilers

((TYPE OF BOILER)) Type of Boiler	((MINIMUM LICENSE REQUIRED)) Minimum License Required
2. More than 5000 kBtuh to 20,000 kBtuh max input. No more than 2 steam boilers on same header with a combined capacity no more than 20,000 kBtuh ¹	Quarterly checks by a Grade III Boiler Supervisor and twice daily checks by a Grade IV Boiler ((Fireman)) <u>Operator</u>
3. More than 20,000 kBtuh—50,000 kBtuh max input.	Quarterly checks by a Grade III Boiler Supervisor and twice daily checks by a Grade III Steam Engineer
4. More than 50,000 kBtuh to 300,000 kBtuh max input.	Quarterly checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Steam Engineer.
5. Over 300,000 kBtuh max input.	Quarterly checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer
D. Boilers ((certified)) as Monitored	
1. 2,500 to 5000 kBtuh max input.	Quarterly checks by a Grade III Boiler Supervisor.
2. More than 5,000 to 20,000 kBtuh max input. No more than 2 steam boilers on same header with a combined capacity no more than 20,000 kBtuh ¹	Semiannual checks by a Boiler Supervisor and twice daily checks by a Grade IV Boiler ((Fireman)) <u>Operator</u> .
3. More than 20,000 to 50,000 kBtuh max input. ¹	Semiannual checks by a Boiler Supervisor and twice daily checks by a Grade III Steam Engineer.
4. More than 50,000 to 300,000 kBtuh max input.	Semiannual checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Steam Engineer; or ((Semiannual)) <u>Quarterly</u> checks by a Grade II Boiler Supervisor and twice daily checks by a Grade III Steam Engineer.
5. Over 300,000 kBtuh max input.	Semiannual checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer; or ((Semiannual)) <u>Quarterly</u> checks by a Grade I Boiler Supervisor and twice daily checks by a Grade II Steam Engineer.

- 1 Footnote to Tables ((~~B and C~~)) A and B for 6.420.100: A Grade IV Boiler ((~~Fireman~~)) Operator
- 2 may operate more than two ((~~2~~)) steam or vapor boilers with a greater combined capacity when
- 3 the ((~~fireman~~)) operator is the head ((~~fireman~~)) operator on duty and under the direct on-site

supervision of a licensed steam engineer for the purpose of training. The boilers shall not exceed the capacity permitted by the license of the supervising engineer.

6.420.110 Duties of steam engineers and boiler ~~((firemen))~~ operators ~~((=))~~

Licensed steam engineers and boiler ~~((firemen))~~ operators shall perform the following duties in connection with the operation and maintenance of boilers and steam engines:

A. Test the operation of the boiler and its control and safety devices periodically on a routine basis in accordance with nationally recognized standards and/or boiler and control manufacturer's written recommendations;

B. Maintain and operate the equipment in a safe manner and according to nationally recognized standards such as those recommended by the American Society of Mechanical Engineers for boilers and as adopted by the Director;

C. Prepare and maintain a boiler log book and record, at least daily or as otherwise required by this ~~((chapter))~~ Chapter 6.420, such pertinent boiler readings and data as may be recommended by the boiler manufacturer, nationally recognized standards, or required by the Boiler Inspector and/or the senior license holder or other authorized person in charge of the boiler operation. The boiler logbook shall be kept on the premises at all times and be available for inspection by the City Boiler Inspector.

6.420.120 Duties of boiler supervisors ~~((=))~~

Boiler supervisors shall perform the duties listed in this ~~((section))~~ Section 6.420.120 in connection with the supervision of automatic and monitored boilers.

A. Prepare boiler logbooks with the name, telephone numbers, email address, if any, and home and business addresses of the boiler supervisor on the front cover. The boiler logbooks shall be kept on the premises and be available for inspection by the City Boiler Inspector.

1 B. Determine the proper light-off, operating, and shutdown procedures and clearly set
2 forth such procedures in the inside front cover of the boiler logbooks. Determine proper firing
3 rate and the set point or operating limits of all safety devices required on automatic or monitored
4 boilers by the Seattle Boiler Code. Boiler supervisors shall clearly mark such set point or limits
5 in the inside back cover of the boiler logbooks.

6 C. Determine the list of pertinent boiler data entries to be recorded in the boiler logbooks
7 by the boiler owners or the owners' designated representatives and list such entries on the inside
8 back cover. This list shall include such items as any unusual conditions observed, including
9 safety shutdowns, repairs required, adjustments required and adjustments made. All entries shall
10 be made in the boiler logbook and shall include the signature of the person making such
11 readings, observations, or adjustments. It is lawful to cross out words or sentences which should
12 be changed or corrected but erasures are prohibited. The boiler supervisor's written instructions
13 shall include the above signature requirement and the prohibition of erasures.

14 D. Examine each boiler and boiler logbook in accordance with the frequency of
15 examinations required by Section 6.420.100. Examination shall include the testing of all control
16 devices required for automatic boilers by the Seattle Boiler Code and the testing of monitoring
17 systems when used.

18 E. If a boiler is a certified monitored boiler as defined in Section 6.420.030:

19 1. The boiler supervisor shall cause signals to be sent to the monitoring station to
20 test the reliability of the monitoring equipment and the response of the monitoring station.

21 2. The boiler supervisor shall report all failures of either the equipment or the
22 response to the City Boiler Inspector within ~~((twenty-four (24)))~~ 24 hours. Such report shall be in
23 writing.

1 F. Boiler supervisors shall inspect and test all other controls on the boiler and shall flush
2 the low-water cutoffs, if applicable, to assure that all control devices are in safe and proper
3 operation. They shall permit continued automatic boiler operation only if their examination,
4 inspection, and testing indicate that the boiler is in a safe operating condition.

5 G. No modification, revisions, or alterations to a boiler or its control devices shall be
6 made except under a boiler supervisor's supervision except:

7 1. Restoration of control devices to original factory operating conditions at the set
8 point or within the operating limits determined by the boiler supervisor as set forth in the boiler
9 logbook; ((;)) or

10 2. Repair or adjustment of the burner system for viscosity changes or to correct
11 fuel-air ratios to restore proper operation at the firing rate indicated in the boiler logbook by the
12 boiler supervisor; ((;)) or

13 3. Repair or adjustment of any other system not directly related to the primary
14 safety controls or to the pressure vessel to restore such systems to proper operating conditions.
15 Entries of such repairs or adjustments shall be made in the boiler logbook and shall include the
16 signature of those making such repairs or adjustments.

17 H. Attend all startups of an automatic boiler out of service after corrective work other
18 than limited adjustments or repairs by others as set forth in subsection 6.420.120.G has been
19 performed on the boiler, its firing equipment, or its control and safety devices. The boiler
20 supervisor shall remain in constant attendance until:

21 1. The boiler has reached its preset operating range of pressure; ((;)) and

22 2. The primary controls and safety devices have been proved; ((;)) and

1 3. The boiler is acceptable to ~~((him/her))~~ the boiler supervisor for continued
2 operation.

3 Boiler supervisors are not required to be in attendance during light-off of original boiler
4 equipment being installed by and under the control of the boiler manufacturer or the
5 manufacturer's representative, by a boiler installation contractor or boiler or burner installer
6 making such installation under the manufacturer's written instructions and recommendations.
7 Boiler supervisors are not required to be in attendance during light-off following adjustment or
8 authorized boiler or burner manufacturer alterations made by the above representative,
9 contractor, or installer within the guarantee or warranty time period during which time the
10 representative, contractor, or installer is obligated to render such service. The representative,
11 contractor, or installer shall furnish the boiler supervisor with recommended set points or
12 operating limits of all control devices and recommended firing rates as well as other pertinent
13 data in writing. The representative, contractor, or installer shall record all subsequent changes,
14 adjustments, alterations, or recommendations in the boiler logbook and shall sign the logbook.

15 I. Provide for a substitute boiler supervisor to attend to boilers in the boiler supervisor's
16 charge when ~~((he/she))~~ the boiler supervisor is unable to respond to trouble calls. The boiler
17 supervisor shall list the names, email address, if any, home and business telephone numbers, and
18 addresses of substitute boiler supervisors on the front of the boiler logbooks.

19 J. Respond to trouble calls in accordance with the following:

20 1. Make verbal contact with the licensed operator, boiler owner, or the owner's
21 representative within two ~~((2))~~ hours of a trouble call from such person, and

22 2. Have the capability of being present at a boiler site within four ~~((4))~~ hours on
23 a trouble call from that site.

1 K. A boiler supervisor may not act as both boiler supervisor and the licensed operator
2 except when:

- 3 1. The boiler supervisor is a full-time employee of the boiler owner/user; or ((7))
4 2. The licensed operator is unavailable due to vacation, illness, or similar
5 temporary circumstances.

6 **6.420.150 Reporting of defective boilers ((-))**

7 A. Before operating any boiler, steam engineers and boiler ((fireman)) operators shall
8 examine the ((boiler permit)) Certificate of Inspection issued for the boiler to see that the
9 ((permit)) certificate is in force. If the ((permit)) certificate has expired, the steam engineer or
10 boiler ((fireman)) operator shall notify ((his/her)) the steam engineer's or boiler operator's
11 employer. If the ((permit)) certificate has been expired for more than ((ninety (90))) 90 days, the
12 steam engineer or boiler ((fireman)) operator shall also notify the City Boiler Inspector of the
13 date of expiration. The steam engineer or boiler ((fireman)) operator shall note the pressure
14 allowed by the permit and shall test the operation of the boiler and its control and safety devices
15 for proper operation.

16 B. Whenever the steam engineer or boiler ((fireman)) operator believes any part of a
17 boiler or steam engine to be in defective or potentially unsafe condition, the steam engineer or
18 boiler ((fireman)) operator shall report the fact to ((his/her)) the steam engineer's or boiler
19 operator's employer in writing. If immediate corrective action is not taken, the steam engineer or
20 boiler ((fireman)) operator shall report such defective or potentially unsafe conditions to the City
21 Boiler Inspector.

1 C. The City Boiler Inspector shall thereupon investigate the ((~~same~~)) defective or
2 potentially unsafe conditions reported under subsection 6.420.150.B, and report any lack of
3 proper care on the part of any licensed person to the employer and the Director.

4 D. Steam engineers and boiler ((~~firemen~~)) operators shall report to their employers and to
5 the City Boiler Inspector any damage or injury to any boiler or steam engine under their charge
6 or care which affects the safe operation of the boiler or steam engine. The boiler and any parts
7 thereof shall not be removed or disturbed before an inspection has been made by a department
8 inspector unless for the purpose of saving life. Failure to make such reports shall be sufficient
9 cause for the suspension or revocation of the license of the person in charge.

10 E. It is the duty of all licensed steam engineers and boiler ((~~firemen~~)) operators to report
11 serious negligence in the care of boilers and steam engines to their employers and the City Boiler
12 Inspector.

13 **6.420.180 Licenses to be posted or carried ((-))**

14 All licensed steam engineers and boiler ((~~firemen~~)) operators on duty shall display their licenses
15 in a conspicuous place in the room where the boiler or steam engine is located. Licenses shall be
16 effective only for the operation of the plant where they are displayed. When the posting of their
17 licenses is not practicable, steam engineers and boiler ((~~firemen~~)) operators shall carry their
18 licenses on their persons, and on demand shall exhibit the licenses. Boiler supervisors shall
19 display legible copies of their licenses in the logbook of each boiler they supervise, pursuant to
20 the requirements of Section 6.420.120.

6.420.190 Posting of regulations ((:))

A copy of this ((chapter)) Chapter 6.420 or a condensed version thereof shall be posted by the employer in every boiler and engine room where licensed operators or boiler supervisors are required.

6.420.200 License expiration and renewal ((:))

A. All licenses shall expire at midnight on September 30 of each year.

B. Licenses shall not be transferred or assigned.

C. Licenses may be renewed annually upon payment of the renewal fee. Renewals shall specify the same grade and be subject to such conditions or limitations as may be provided under the license to be renewed. Licensed persons desiring a renewal must also meet the requirements of Section 6.420.060.

D. The Director may refuse to renew a license if the license holder demonstrates neglect or incompetence in the care and operation of boilers pursuant to this code.

E. Licenses that have been expired for more than one ((4)) year shall not be renewed until the licensee has passed an examination administered in accordance with this ((chapter)) Chapter 6.420.

6.420.210 Revocation of license ((:))

A. Any license issued pursuant to this ((chapter)) Chapter 6.420 may be revoked by the Director if any of the following is found:

1. The licensee has misrepresented facts related to the operation of any boiler or steam engine;

2. The licensee has provided false information on an application for a license governed by ((the chapter)) this Chapter 6.420;

3. The licensee fails an examination administered according to Section 6.420.040;

4. The licensee demonstrates neglect or incompetence in the care and operation of
boilers pursuant to this code; or

5. The existence of special circumstances that warrant revocation in the interests
of public safety and welfare.

Licenses that have been revoked may be reinstated only after the applicant passes an
examination administered according to this ~~((chapter))~~ Chapter 6.420.

B. Whenever the Director determines that there are grounds for revoking a license, the
Director may issue a notice of revocation and stop work order. The notice shall be served by
personal service in the manner set forth in RCW 4.28.080 for service of a summons or sent by
first class mail to the licensee.

C. Unless a request for review before the Director is made in accordance with this
~~((subsection))~~ Section 6.420.210, the notice shall become the final order of the Director. A
request for review is an administrative remedy that must be exhausted before judicial review of
the decision may be sought.

D. Any person aggrieved by a notice issued by the Director pursuant to this section may
obtain a review of the notice by delivering to the Department such request in writing within ten
~~((10))~~ days of the date of service of the notice. For purposes of this subsection 6.420.210.D,
service shall be complete at the time of personal service, or if mailed, three days from the date of
mailing. When the last day of the period so computed is a Saturday, Sunday, or federal or City
holiday, the period shall run until ~~((five (5:00)))~~ 5 p.m. on the next business day. The request
shall be in writing, and upon receipt of the request, the Director shall notify any persons served
the notice of the deadline for submitting additional information in the form of written material

1 for the review, which shall be within ten ~~((10))~~ days after the request is received. Before the
2 deadline for submission of information, any person aggrieved by or interested in the notice
3 (including any persons served the notice) may submit any additional information in the form of
4 written material to the Director for consideration as part of the review.

5 1. The review will be made by the Steam License Advisory Board. The Steam
6 License Advisory Board will review all additional information received by the submission
7 deadline. ~~((for submission of information.))~~ The Board may also request clarification of
8 information received. After review of the additional information, the Steam License Advisory
9 Board may recommend that the Director:

10 a. Sustain the notice of revocation;
11 b. Withdraw the notice; or
12 c. Continue the review to a date certain for receipt of additional
13 information.

14 2. Recommendations of the Board shall be in writing; shall be mailed to the
15 Director and the appellant; and shall apply only to the case being heard.

16 3. The Director shall issue an Order and shall cause the same to be sent by first
17 class mail to the person or persons named on the notice and any other person that has requested
18 notice of the decision.

19 4. Any person who has standing to file an appeal with the Hearing Examiner may
20 file such an appeal within ten ~~((10))~~ days of issuance of the Order of the Director.

6.420.220 Steam License Advisory Board ((-))

A. The Director shall appoint a Steam License Advisory Board consisting of as many as nine ~~((9))~~ members for ~~((four-4))~~ four-year terms. The terms shall be staggered so that no more than three ~~((3))~~ board members' terms expire in the same year.

B. The Steam License Advisory Board shall consist of up to three ~~((3))~~ persons who are, or have been, licensed as a steam engineer or boiler ~~((fireman))~~ operator; up to three ~~((3))~~ persons owning boilers or managing boilers for owners; and up to three ~~((3))~~ persons from the general public.

C. The Steam License Advisory Board shall advise and assist the Director in the administration of the steam engineer's and boiler ~~((fireman's))~~ operator's license program. The Director is authorized to define the duties of and prescribe the procedure for the Board. The Steam License Advisory Board may recommend to the Director revisions to this ~~((chapter))~~ Chapter 6.420.

6.420.240 Inspections ((-))

Licensees shall have their license card available while engaged in the care or operation of any boiler or steam engine and shall present the card at the request of the Director. The Director may conduct periodic inspections of licensees to determine compliance with these regulations.

6.420.250 Stop work orders ((-))

If the Director finds any condition or work is in violation of this ~~((chapter))~~ Chapter 6.420, the Director may issue a stop work order. The order shall describe the violation in writing. It shall be posted on the premises or served on any person responsible for the condition or work. It is unlawful for any person to engage in or to cause any work subject to the order to be done until authorization from the Director is received.

6.420.260 Notice of violation ((-))

A. Notice. If, after investigation, the Director determines that there has been a violation of this code not resulting in revocation of a license, the Director may serve a notice of violation upon the person responsible for the action or condition. The notice of violation may state the requirements violated, what corrective action, if any, is necessary to comply with the standards or requirements, and set a reasonable time for compliance. The notice may be served upon the responsible person by personal service according to RCW 4.28.080 for service of a summons or by regular first class mail, addressed to the last known address of such person. The notice of violation shall be considered an Order of the Director.

B. Other remedies. Nothing in this ((subsection)) Section 6.420.260 shall be deemed to limit or preclude any action or proceeding pursuant to Section 6.420.250, ((of this chapter,)) and nothing in this ((section)) Section 6.420.260 shall be deemed to obligate or require the Director to issue a notice of violation prior to the imposition of civil or criminal penalties.

C. Review by the Director. Any person affected by a notice of violation issued by the Director pursuant to this ((chapter)) Chapter 6.420 may obtain a review of the notice by requesting such review in writing within ten ((40)) days after service of the notice. Service shall be complete at the time of personal service, or if mailed, ((on the date of mailing)) three days from the date of mailing. When the last day of the period computed is a Saturday, Sunday, or federal or City holiday, the period shall run until ((five (5:00))) 5 p.m. of the next business day. Upon receipt of a request, the Director shall notify the person requesting the review of the date, time, and place of the Director's review. The review shall be not less than ten ((40)) nor more than ((twenty (20))) 20 days after the request is received, unless otherwise agreed by the

1 person requesting the review. Any person affected by the notice of violation may submit
2 additional information to the Director for consideration on or before the date of the review.

3 A representative of the Director who is familiar with the case and the applicable
4 regulations will conduct the review. The Director's representative will consider any information
5 presented and in the Department's file. After the review, the Director shall issue an Order of the
6 Director that may:

- 7 1. Sustain the notice of violation; or
- 8 2. Withdraw the notice of violation; or
- 9 3. Amend the notice of violation; or
- 10 4. Continue the review to a future date.

11 The Director shall issue an order within a reasonable time after the conclusion of the
12 review. The Director shall mail the order by regular first-class mail to the person or persons
13 named in the notice of violation.

14 **6.420.270 Penalties ((-))**

15 A. Civil ~~((Penalties))~~ penalties. Any failure to comply with the provisions of this
16 ~~((chapter))~~ Chapter 6.420 shall be subject to a cumulative civil penalty in an amount not to
17 exceed ~~((Five Hundred Dollars (\$500)))~~ \$500 per day for each violation from the date the
18 violation occurs or begins until compliance is achieved. The amount of the penalty shall be based
19 upon factors including, but not limited to, severity of violation and history of violations. In cases
20 where the Director has issued a notice of violation, the violation will be deemed to begin, for
21 purposes of determining the number of days of violation, on the date compliance is required by
22 the notice of violation.

1 The penalty imposed by this ~~((section))~~ Section 6.420.270 shall be collected by civil
2 action brought in the name of the City. The Director shall notify the City Attorney in writing of
3 the name of any person subject to the penalty, and the City Attorney shall, with the assistance of
4 the Director, take appropriate action to collect the penalty. In any civil action for a penalty, the
5 City has the burden of providing by a preponderance of the evidence that a violation exists or
6 existed; the issuance of the notice of violation or of an order following a review by the Director
7 is not itself evidence that a violation exists.

8 B. Alternative ~~((Criminal Penalty))~~ criminal penalty. Any person who violates or fails to
9 comply with this ~~((chapter))~~ Chapter 6.420 shall be guilty of a gross misdemeanor subject to the
10 provisions of Chapters 12A.02 and 12A.04, except that absolute liability shall be imposed for
11 such a violation or failure to comply and none of the mental states described in Section
12 12A.04.030 need be proved. The Director ~~((my))~~ may request the City Attorney to prosecute
13 such violations criminally as an alternative to the civil procedure outlined in this ~~((chapter))~~
14 Chapter 6.420.

15 **6.420.280 Additional relief ((-))**

16 The Director may seek legal or equitable relief to enjoin any acts or practices and abate any
17 condition which constitutes a violation of this ~~((chapter))~~ Chapter 6.420 when civil or criminal
18 penalties are inadequate to effect compliance.

19 **6.420.290 Existing licenses continued ((-))**

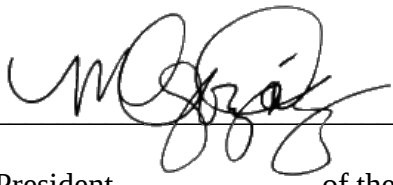
20 Anyone holding a license under Chapter ~~((6.230))~~ 6.420, and in effect at the time the ordinance
21 ~~((codified in this chapter))~~ introduced as Council Bill 120085 becomes effective, shall be entitled
22 to continue to operate under that license subject to all the provisions of this ~~((chapter))~~ Chapter
23 6.420.

6.420.300 Application of other provisions ((-))

The licenses provided for in this ((chapter)) Chapter 6.420 are subject to the general provisions of the Seattle License Code set forth in Chapters 6.02 and 6.202. In the event of a conflict between the provisions of Chapters 6.02 and 6.202 and this ((chapter)) Chapter 6.420, the provisions of this ((chapter)) Chapter 6.420 shall control.

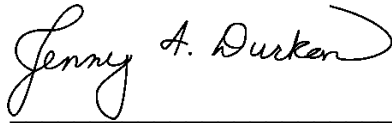
Section 2. This ordinance shall take effect and be in force 30 days after its approval by the Mayor, but if not approved and returned by the Mayor within ten days after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

Passed by the City Council the 1st day of June, 2021,
and signed by me in open session in authentication of its passage this 1st day of
June, 2021.



President _____ of the City Council

☒ Approved / ☐ returned unsigned ☐ vetoed this 4th day of June, 2021.



Jenny A. Durkan, Mayor

Filed by me this 4th day of June, 2021.



Monica Martinez Simmons, City Clerk

(Seal)