

1 Department of Labor and Industry

2

3 Adopted Permanent Rules Relating to Boilers and Power Boats

4

5 Rules as Adopted

6 5225.0010 SCOPE.

7 This chapter addresses the manufacture, installation,  
8 repair, operation, safety, and inspection of boilers, pressure  
9 vessels, appurtenances, and boats for hire as defined in parts  
10 5225.0050 to 5225.8700 pursuant to Minnesota Statutes, chapter  
11 183.

12 5225.0050 DEFINITIONS.

13 Subpart 1. **Scope.** For the purposes of this chapter and  
14 Minnesota Statutes, sections 183.375 to 183.62, the following  
15 terms have the meanings given them.

16 Subp. 2. **Appurtenance.** "Appurtenance" means equipment  
17 that is integral to the operation of the boiler as specified in  
18 Sections I, IV, VI, and VII of the American Society of  
19 Mechanical Engineers Boiler and Pressure Vessel Code as  
20 incorporated by reference in part 5225.0090.

21 Subp. 3. **Authorized inspector.** "Authorized inspector"  
22 means a commissioned inspector with a Minnesota certificate of  
23 competency who also possesses either an A or B endorsement and  
24 is regularly employed by an authorized inspection agency or the  
25 jurisdiction.

26 Subp. 4. **Boiler.** "Boiler" means a vessel in which steam  
27 or other vapor, hot water or other hot liquid is generated for  
28 use external to itself.

29 Subp. 5. **Boiler plant.** "Boiler plant" means all boilers  
30 on a common header and their related appurtenances.

31 Subp. 6. **Chief boiler inspector.** "Chief boiler inspector"  
32 means the chief of the division of boiler inspection as defined  
33 in Minnesota Statutes, section 183.375, subdivision 2, appointed  
34 by the commissioner.

35 Subp. 7. **Chief engineer.** "Chief engineer" means the

1 properly licensed engineer required to be in charge of and  
2 responsible for the safe operation of a boiler plant.

3 Subp. 8. **Commissioned inspector.** "Commissioned inspector"  
4 means one who has passed the exam of the National Board of  
5 Boiler and Pressure Vessel Inspectors and possesses a valid  
6 National Board Commission and is employed by an authorized  
7 inspection agency or the jurisdiction.

8 Subp. 9. **Commissioner.** "Commissioner" means the  
9 commissioner of the department.

10 Subp. 10. **Department.** "Department" means the Department  
11 of Labor and Industry.

12 Subp. 11. **Direct supervision.** "Direct supervision" by the  
13 properly licensed operating engineer of a boiler plant means  
14 oversight of an apprentice's activities on a boiler including  
15 attendance at the boiler plant at all times.

16 Subp. 12. **Division.** "Division" means the Division of  
17 Boiler Inspection.

18 Subp. 13. **High pressure boiler.** "High pressure boiler"  
19 means power boiler as defined in Section I of the American  
20 Society of Mechanical Engineers Boiler and Pressure Vessel Code.

21 Subp. 14. ~~Maintenance--"Maintenance"--means-attendance-to~~  
22 ~~the-upkeep-and-replacement-or-repair-of-boilers-and~~  
23 ~~appurtenances-by-an-operating-engineer-in-compliance-with-this~~  
24 ~~chapter-~~

25 Subp. ~~15-~~ **Operating engineer.** "Operating engineer" means  
26 a properly licensed individual who operates and maintains  
27 boilers and their appurtenances.

28 Subp. ~~16-~~ 15. **Operating experience.** "Operating experience"  
29 means activities in boiler operations and maintenance that  
30 include training, observation, and personal participation.

31 Subp. ~~17-~~ 16. **Operation.** "Operation" means the act of  
32 manipulating and monitoring, except as provided in Minnesota  
33 Statutes, section 183.501, paragraph (b), boilers or  
34 appurtenances to assure safe operation for the intended purpose  
35 in accordance with this chapter.

36 Subp. ~~18-~~ 17. **Repair firm.** "Repair firm" means a company

1 or organization that holds a current "R" repair certificate of  
2 authorization issued by the National Board of Boiler and  
3 Pressure Vessel Inspectors and performs welded repairs or  
4 alterations on boilers or pressure vessels.

5 Subp. ~~19~~ 18. **Shift engineer.** "Shift engineer" means the  
6 operating engineer responsible to the chief operating engineer  
7 in charge of and responsible for the safe operation of a boiler  
8 plant in the absence of the chief engineer.

9 5225.0090 INCORPORATION BY REFERENCE.

10 Subpart 1. **General.** To the extent adopted by Minnesota  
11 Statutes, chapter 183, and referred to in this chapter, the  
12 codes and publications described in this part are incorporated  
13 by reference.

14 Subp. 2. **American Society of Mechanical Engineers Boiler  
15 and Pressure Vessel Code Sections I, II, III, IV, V, VI, VII,  
16 VIII, IX, X, and XI, ~~and B31-1~~.** The American Society of  
17 Mechanical Engineers Boiler and Pressure Vessel Code is written  
18 and published by the American Society of Mechanical Engineers,  
19 United Engineering Center, 345 East 47th Street, New York, New  
20 York 10017 and can be purchased from the same source. It is  
21 available for inspection at the Science and Engineering  
22 Reference Collection, 206 Walter Library, University of  
23 Minnesota, 117 Pleasant Street S.E., Minneapolis, Minnesota  
24 55455. It is subject to frequent change. The publication dates  
25 vary by subject. The most recent publication and addenda are  
26 incorporated.

27 Subp. 3. **National Board Inspection Code.** The National  
28 Board Inspection Code is written and published by the National  
29 Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper  
30 Avenue, Columbus, Ohio 43229 and can be purchased from the same  
31 source. It is available for inspection at the Minnesota State  
32 Law Library, Minnesota Judicial Center, 25 Constitution Avenue,  
33 Saint Paul, Minnesota 55155. It is subject to frequent change.  
34 The publication date varies. The most recent publication and  
35 addenda are incorporated.

1           Subp. 4. **American Society of Mechanical Engineers Codes --**  
2 **Standards.** The American Society of Mechanical Engineers Codes  
3 -- Standards are submitted for publication to the American  
4 National Standards Institute, 1430 Broadway, New York, New York  
5 10018 and can be purchased from the same source. They are  
6 available for inspection at the Hill Reference Library, 80 West  
7 Fourth Street, Saint Paul, Minnesota 55102. They are subject to  
8 frequent change. The publication dates vary by subject. The  
9 most recent publication and addenda are incorporated.

10 5225.0100 APPLICATION FOR OPERATING ENGINEER LICENSE.

11           Any person desiring to take an examination for a license as  
12 an operating engineer shall make written application under oath,  
13 on blanks furnished by the division. The application shall be  
14 accompanied by a corroborating affidavit of at least one  
15 employer or an operating engineer possessing not less than a  
16 second class engineer's license, certifying to the applicant's  
17 operating experience as stated in the application. If  
18 affidavits are not obtainable, satisfactory evidence of the  
19 applicant's operating experience must be furnished.

20 5225.0300 EXPIRATION AND RENEWALS.

21           Subpart 1. **Timing.** Licenses for operating engineers,  
22 unless revoked, are valid for one year from the date of  
23 issuance, with privilege of renewal without examination, upon  
24 application to the division and payment of a renewal fee within  
25 ten calendar days of the expiration date. The renewal license  
26 must be given an issue number and the same monthly date as the  
27 original issue. An application for renewal may not be presented  
28 before 30 days preceding the expiration date of the license.  
29 Engineers who fail to renew their licenses before the ten-day  
30 grace period has expired are subject to subparts 2 and 3.

31           Subp. 2. **Renewal application within one year of expiration.**  
32 A license that has expired may be renewed within one year of  
33 expiration without an examination by filing an application for  
34 renewal, and submitting the expired renewal fee required in part  
35 5225.8600, subpart 2, item C.

1 Subp. 3. Application beyond one year of expiration. After  
2 one year after expiration of a license, the license will not be  
3 renewed. An applicant must reapply as provided in part  
4 5225.0100.

5 5225.0400 BASIC LICENSE REQUIREMENT AND DUTY.

6 No person shall have charge of or operate  
7 any boiler or boiler plant who does not possess a license of the  
8 class required to operate the boiler or boiler plant.

9 It is the duty of the owner of a boiler or boiler plant and  
10 the chief engineer and all boiler inspectors, including those  
11 employed by insurance companies, to promptly report to the chief  
12 boiler inspector, any boiler or boiler plant in which the  
13 engineer has no license or a license of a lower class than that  
14 required by law for the horsepower of the boiler or boiler plant.

15 5225.0410 HIGH PRESSURE BOILER CHIEF ENGINEER.

16 Each boiler plant over 300 horsepower must have designated  
17 a chief class operating engineer of proper grade as the chief  
18 engineer of the plant. The chief engineer shall have the  
19 responsibility for ensuring the safe operation and maintenance  
20 of the boiler plant. The requirements of this section are not  
21 met unless the chief engineer has the authority to make  
22 decisions to ensure that safety. The chief engineer shall work  
23 on the premises at least four hours per day, five days per week,  
24 with the exception of excused absences, such as vacation, sick  
25 leave, and holiday time.

26 5225.0500 EXAMINATIONS.

27 Subpart 1. Preparation of written examination. The  
28 examination questions will be prepared by the chief boiler  
29 inspector. All examinations must be written unless the  
30 applicant is unable to read, or write, in which case the  
31 examination will be oral for a special or second class license.  
32 The right to an oral examination for a first or chief class  
33 license shall be determined by the chief boiler inspector based  
34 on the applicant's ability to demonstrate reading comprehension

1 of statutes, rules, technical boiler operation manuals, and  
2 safety warnings. Decisions of the chief boiler inspector  
3 regarding application for oral examination may be appealed to  
4 the commissioner under part 5225.3200. A written record of the  
5 examination shall be made, and examination papers will be kept  
6 on file for a period of at least one year.

7 Subp. 2. **Minimum grade.** No new license of any class will  
8 be granted to any applicant who fails to obtain a score of at  
9 least 70 percent in an examination.

10 Subp. 3. **Effect of failure.** Applicants who fail to pass  
11 an examination shall not be eligible to take another examination  
12 for the same class of license for ten days.

13 Failure of an applicant to obtain a passing score will not  
14 affect the status of any license currently held, but the fee  
15 paid for the examination will not be refunded.

16 5225.0550 EXPERIENCE REQUIREMENTS AND DOCUMENTATION FOR  
17 LICENSURE AS AN OPERATING ENGINEER.

18 Subpart 1. **Compliance requirements.** All applicants must  
19 comply with this chapter and Minnesota Statutes, sections  
20 183.375 to 183.62. The experience requirements are detailed in  
21 this part and documentation requirements are detailed in subpart  
22 9. Applicants with previous experience in a jurisdiction  
23 requiring licensure must show proof of compliance with the  
24 licensure requirements of that jurisdiction in order to receive  
25 credit for the experience. All applicants for licensure as an  
26 operating engineer or hobby operating engineer, shall provide  
27 documentation of operating experience for the level of  
28 class/grade applied for in accordance with subparts 2 to 8. To  
29 be acceptable for this purpose, operating experience must have  
30 occurred within the ten years prior to the license application.  
31 The chief boiler inspector may allow earlier operating  
32 experience if that experience is pertinent to current operations.

33 Subp. 2. **Special class experience requirements.** A special  
34 class license requires only a signed application form. No  
35 previous experience is necessary.

1 Subp. 3. Second class experience requirements. A second  
2 class license requires one year of operating experience,  
3 documented as described in subpart 9, on a boiler of proper size  
4 under Minnesota Statutes, section 183.51, subdivisions 10 to 12.

5 Subp. 4. First class experience requirements. A first  
6 class license requires three years of operating experience,  
7 documented as described in subpart 9, on a boiler of proper size  
8 under Minnesota Statutes, section 183.51, subdivisions 7 to 9.

9 Subp. 5. Chief class experience requirements. A chief  
10 class license requires five years of operating experience,  
11 documented as described in subpart 9, on a boiler of proper size  
12 which must include one year as a licensed first class engineer,  
13 under Minnesota Statutes, section 183.51, subdivisions 4 to 6.

14 Subp. 6. Requirements for Grade A licensure. The  
15 requirements for a Grade A license are:

16 A. Second Class: one year of operating experience on  
17 a high pressure boiler, documented as described in subpart 9,  
18 which must include one year of operation of a steam engine or  
19 turbine.

20 B. First Class: three years of operating experience  
21 on a high pressure boiler, documented as described in subpart 9,  
22 of which at least two years must include operation of a steam  
23 engine or turbine.

24 C. Chief Class: five years of operating experience  
25 on a high pressure boiler, documented as described in subpart 9,  
26 including at least two years of operation of a steam engine or  
27 turbine.

28 Subp. 8. Hobby operating engineer license experience and  
29 documentation.

30 A. Experience. An applicant for a hobby operating  
31 engineer license must have at least 25 hours operating  
32 experience on a steam traction engine or hobby boiler under the  
33 supervision of an operating engineer.

34 B. Documentation. An affidavit of experience must be  
35 signed by a person with sufficient knowledge of the applicant's  
36 operating experience prior to the applicant taking the

1 examination. The person signing the affidavit must have  
2 observed the applicant operating the steam traction engine or  
3 hobby boiler and must possess either a valid Minnesota hobby  
4 operating engineer license or a valid second class, or higher,  
5 Minnesota operating engineer's license. However, if the  
6 experience claimed is acquired from outside the state of  
7 Minnesota, documentation under the last paragraph of subpart 9  
8 applies.

9 Subp. 9. Supporting documentation. Acceptable forms of  
10 documentation of experience are:

11 A. notarized affidavits, prescribed by the department  
12 and signed by the owner, employer, or a person possessing a  
13 valid Minnesota second class or higher operating engineer  
14 license;

15 B. documentation from the military or maritime  
16 service verifying actual operating experience; or

17 C. a notarized letter from an employer on the  
18 employer's business stationery containing verification of  
19 operating experience sufficient to determine the appropriate  
20 class and grade of license for which the applicant may apply.

21 If the documentation described in items A to C cannot be  
22 obtained, other forms of documentation in which the information  
23 can be verified and which are sufficient to determine the  
24 appropriate class and grade, may be submitted to the chief  
25 boiler inspector for consideration.

26 Subp. 10. Year defined. For purposes of this chapter, a  
27 "year" is at least 2,000 hours. However, in the case of low  
28 pressure heating boilers, a year is defined as a 12-month period  
29 which includes the heating season operating, and the remainder  
30 of the year maintaining, the low pressure boiler.

31 5225.0600 PROHIBITION AGAINST FALSE STATEMENTS IN APPLICATION.

32 Any material false statement in an application or affidavit  
33 such that the license would not have been granted if the  
34 accurate information had been provided, shall render the license  
35 void. The license shall not be determined to be void until the



1 license holder has been provided with the opportunity for a meet  
2 and confer conference and/or an administrative hearing pursuant  
3 to part 5225.0880, subpart 5, and the requirements of the  
4 Administrative Procedure Act, and the charge of a materially  
5 false statement is upheld.

6 5225.0700 LOSS OR DESTRUCTION OF LICENSE.

7       Upon application by the license holder stating that a  
8 current operating engineer's license issued under the authority  
9 of this chapter for display has been lost, destroyed, or not  
10 received, a replacement license will be issued for the fee in  
11 part 5225.8600, subpart 2, item D. Upon presentation of a  
12 written statement of fact showing that a current operating  
13 engineer's license issued under the authority of this chapter in  
14 wallet size has been lost, destroyed, or not received, a  
15 replacement license will be issued for the fee in part  
16 5225.8600, subpart 2, item D.

17 5225.0880 DISCIPLINARY PROCEDURES.

18       Subpart 1. License revocation suspensions. The  
19 commissioner may suspend or revoke the operating engineer's or  
20 pilot's license, direct the person to cease the action or  
21 operation, seal the boiler or pressure vessel, or seek a  
22 restraining order in district court if the holder of a license  
23 of any class, including pilots of boats for hire, or the owner  
24 of a boiler or pressure vessel violates any provision of  
25 Minnesota Statutes, sections 183.375 to 183.62, or this chapter,  
26 or operates or allows a boiler or pressure vessel to be operated  
27 under unsafe or dangerous conditions, or the holder of a license  
28 of any class, including pilots of boats for hire, has obtained a  
29 license of any grade based on a materially false application or  
30 affidavit, or an owner of a boiler fails to employ operating  
31 engineers to operate the boiler, or fails to make necessary  
32 repairs to an unsafe boiler or pressure vessel. In deciding  
33 what action to take, the commissioner shall consider the  
34 seriousness of the violation, the likelihood of a repeat  
35 occurrence, and the actual or potential threat to property or

1 life caused by the violation.

2       Subp. 2. **Complaints.** All complaints related to license  
3 qualification or unsafe operating practices, whether filed by a  
4 boiler inspector of the department or any other person, must be  
5 in writing to the chief boiler inspector on forms prescribed by  
6 the commissioner. Notices of unsafe objects shall be prepared  
7 by a boiler inspector of the department on forms prescribed by  
8 the commissioner.

9       Upon the filing of a complaint with the chief boiler  
10 inspector charging the owner or license holder with engaging in  
11 a prohibited or unsafe activity described in subpart 1, the  
12 chief boiler inspector shall direct an investigation as  
13 necessary and report to the commissioner if the chief boiler  
14 inspector believes further action is necessary.

15       Unless the commissioner seeks a restraining order in  
16 district court, the commissioner shall serve on the owner or  
17 license holder, by first class or certified mail or in person,  
18 notice of the alleged violation, the proposed action to be  
19 taken, and of the opportunity for a conference and a contested  
20 case proceeding under subpart 3.

21       Subp. 3. **Show cause conference.** If the charge is that a  
22 license holder or owner has violated a provision of Minnesota  
23 Statutes, sections 183.375 to 183.62 or this chapter, or is  
24 operating a boiler or pressure vessel in an unsafe or dangerous  
25 condition, or with unlicensed or improperly licensed engineers,  
26 or a decision of a boiler inspector is being appealed pursuant  
27 to part 5225.3200, the commissioner shall give the owner or  
28 license holder the opportunity to request a conference to show  
29 cause (1) why an order should not be issued suspending or  
30 revoking the holder's license or directing the person to cease  
31 and desist the prohibited activity or operation, or (2) why the  
32 decision of the boiler inspector should not stand.

33       The person charged may request a show cause conference in  
34 writing that must be received by the commissioner within ten  
35 working days after the notice provided for in subpart 2 was  
36 served. If a timely request is not made, the commissioner may

1 issue the proposed order.

2       The show cause conference must be scheduled within 20  
3 working days of the receipt of a timely request. Findings and  
4 an order must be served and filed by the commissioner within ten  
5 working days after the conference is held.

6       Orders issued under this subpart must include notice of the  
7 right to a contested case proceeding under the Administrative  
8 Procedure Act before an administrative law judge. An owner or  
9 license holder who disagrees with the commissioner's order  
10 issued pursuant to this subpart may request a contested case  
11 hearing for a final determination in accordance with subpart 7.  
12 If a contested case hearing is requested, the commissioner's  
13 order shall be stayed pending a final determination after the  
14 contested case hearing.

15       Subp. 4. **Unsafe objects; administrative conference.** If an  
16 inspector of the department has determined that the operation of  
17 a boiler by an unlicensed or improperly licensed person creates  
18 an imminent danger to human life or property or that repair or  
19 replacement is necessary to ensure safe operation of a boiler or  
20 pressure vessel, a notice of unsafe object must be placed on the  
21 boiler or pressure vessel. In addition to the notice  
22 requirements of subpart 2, the notice of unsafe object must  
23 state that the boiler or pressure vessel may not be operated  
24 until the object is satisfactorily repaired or replaced and the  
25 notice of unsafe object is removed by the inspector, until  
26 properly licensed persons are assigned to operate the equipment,  
27 or the commissioner orders the notice of unsafe object removed  
28 from the boiler or pressure vessel.

29       The commissioner shall give the owner of the boiler or  
30 pressure vessel the opportunity for a conference to show cause  
31 why the boiler or pressure vessel should not remain sealed until  
32 repaired or replaced or until properly licensed persons are  
33 available to operate the boiler. The owner must request a show  
34 cause conference in writing, in person, or by phone, within  
35 three working days of the date the notice of unsafe object was  
36 placed on the boiler or pressure vessel. If a request for a

1 show cause conference is not timely received, the commissioner  
2 may order that the boiler or pressure vessel remain sealed  
3 pending repair, replacement, or operation by properly licensed  
4 personnel.

5 The show cause conference must be held within two working  
6 days of receipt of a timely request or at a later date upon  
7 mutual consent of the parties. Immediately upon completion of  
8 the conference, the commissioner must provide a verbal order, to  
9 be followed by written findings and an order, that must be  
10 served and filed within ten working days after the conference is  
11 held.

12 Orders must include notice of the right to a contested case  
13 proceeding under the Administrative Procedure Act before an  
14 administrative law judge. An owner who disagrees with the  
15 commissioner's order issued pursuant to this part, may request a  
16 contested case hearing for a final determination in accordance  
17 with subpart 7. Once a notice of unsafe object is placed on the  
18 boiler or pressure vessel, the boiler or pressure vessel may not  
19 be operated pending a show cause conference or a contested case  
20 proceeding until the tag is removed by the inspector, or the  
21 commissioner issues an order allowing the object to be placed  
22 into service.

23 Subp. 5. **Materially false statement; meet and confer**  
24 **conference.** If the charge is that the holder of a license  
25 obtained the license based on a materially false application or  
26 affidavit, the commissioner shall give the license holder the  
27 opportunity for an informal meet and confer session with  
28 representatives of the department. The license holder must  
29 request the conference in writing within ten days of the date  
30 the notice in subpart 2 was served. The session must be  
31 scheduled within 20 working days of the receipt of a timely  
32 request.

33 If no timely request for a meet and confer session is  
34 received, or if no mutually acceptable resolution can be reached  
35 at the meet and confer session, the commissioner shall initiate  
36 a contested case hearing pursuant to the Administrative

1 Procedure Act to determine whether the license should be revoked.

2 [For text of subps 6 to 8, see M.R.]

3 5225.0900 DISPLAY OF LICENSE.

4 Licenses granted must be displayed in a conspicuous place  
5 in the engine or boiler room. Boiler plants operated by a  
6 contract operating engineer must have a copy of the operating  
7 engineer's license of each person who may be operating the  
8 boiler posted in each boiler room.

9 5225.1000 BOILER HORSEPOWER RATING.

10 In rating the horsepower of a boiler plant, inspectors  
11 shall use the horsepower of each boiler and compute the total  
12 horsepower of all boilers connected to the header, whether all  
13 the boilers are in use or not.

14 Where the heating surface cannot be discerned, the boiler  
15 horsepower shall be determined by calculating Btu boiler-rated  
16 input divided by 67,000.

17 For purposes of operating engineer license requirements,  
18 boiler horsepower for conventional boilers and steam coil type  
19 generators is determined as provided in Minnesota Statutes,  
20 section 183.51, subdivision 15. For electrically operated  
21 boilers for this purpose, ten kilowatts equal one boiler  
22 horsepower.

23 5225.1110 BOILER OPERATION STANDARDS; ALL PLANTS.

24 All boilers, unless specifically exempted by Minnesota  
25 Statutes, section 183.56, must be operated, maintained, and  
26 attended by an operating engineer in a prudent and attentive  
27 manner to avoid endangering human life and property. At a  
28 minimum, all operating boilers must be checked daily by an  
29 operating engineer in compliance with this chapter. The  
30 recommendations of the American Society of Mechanical Engineers  
31 Boiler and Pressure Vessel Code, Section VI, for low pressure  
32 and Section VII, for high pressure must be complied with and a  
33 log documenting the compliance must be completed daily by the  
34 chief engineer or an operating engineer designated by the chief

1 engineer.

2 5225.1140 ATTENDANCE AT HIGH PRESSURE PLANT.

3 Subpart 1. **Attendance.** A high pressure boiler plant of 31  
4 to 200 horsepower may be left in operation unattended by an  
5 operating engineer for no more than two consecutive hours when  
6 the premises are occupied by employees or the public, except as  
7 permitted by part 5225.1180, subpart 1.

8 Subp. 2. **Attendance required.** A high pressure boiler  
9 plant of more than 200 horsepower, when in operation, requires  
10 constant attendance by an operating engineer, except as  
11 permitted by part 5225.1180, subpart 2.

12 Subp. 3. **Hobby boiler.** A hobby boiler may not be left  
13 unattended when in operation and members of the public are  
14 present. For purposes of this part, a traction engine may be  
15 considered as not being in operation when all of the following  
16 conditions exist:

17 A. the water level is at least one-third of the water  
18 gage glass;

19 B. the header or dome valve is in a closed position;

20 C. the draft doors are closed;

21 D. the fire is banked or extinguished; and

22 E. the boiler pressure is at least 20 pounds per  
23 square inch below the safety valve relieving pressure.

24 5225.1180 ABSENCE FROM PLANT.

25 Subpart 1. **EXEMPTION.** A high pressure boiler plant of 31  
26 to 200 horsepower is exempt from the high pressure attendance  
27 requirements of part 5225.1140, subpart 1, and is subject only  
28 to the attendance provisions of part 5225.1110 under the  
29 following conditions:

30 A. the boiler is equipped with dual pressure controls  
31 and dual low water fuel cutouts and the boiler does not exceed  
32 15 pounds per square inch operating pressure at any time during  
33 the operating engineer's absence;

34 B. the boiler is equipped with fail-safe type safety  
35 controls or valves regulating pressure, temperature, water

1 level, and control supply lines. Fuel control and safety  
2 devices must meet at least the minimum requirements for  
3 automatically fired boilers in Sections I and IV of the American  
4 Society of Mechanical Engineers Boiler and Pressure Vessel Code;

5 C. the valves and controls must be manually switched  
6 over by the operating engineer, the dates and time must be  
7 entered in the boiler room log, and the entry must be signed by  
8 the operating engineer;

9 D. the building in which the boiler is located is not  
10 occupied by the public or employees except for custodial,  
11 maintenance, or security personnel; and

12 E. the boiler is for supplying steam directly to a  
13 low pressure header with header safety valves set at or below 15  
14 pounds per square inch and is of adequate capacity to prevent a  
15 pressure rise above 15 pounds per square inch in the system.  
16 The shutoff valve between the high and low pressure systems must  
17 be electrically interlocked with the low pressure control system  
18 so that the crossover valve is in the open position while  
19 operating on low pressure.

20 Subp. 2. **Absence; shift engineer; over 200 horsepower.**  
21 The shift engineer in a high pressure boiler plant of over 200  
22 horsepower may leave the boiler room for up to 30 minutes if all  
23 boilers are equipped with dual pressure controls and dual low  
24 water fuel cutouts, one of which must be the manual reset type.  
25 The shift engineer must stay within 500 feet of the boiler room  
26 at all times during the shift.

27 Subp. 3. **Limitations.** The absences described in part  
28 5225.1140, subpart 1, and this part may not approach nearly  
29 continuous absence from the plant. If the chief engineer or  
30 shift engineer has found the boiler to be in an unsafe  
31 condition, in addition to notifying the chief boiler inspector,  
32 absence from the plant is not allowed.

33 5225.1200 INSPECTORS.

34 Subpart 1. **License requirement.** All inspectors whether  
35 jurisdictional or in the employ of insurance companies

1 performing inspections in Minnesota shall possess a National  
2 Board of Boiler and Pressure Vessels Inspectors' Commission  
3 issued by the National Board of Boiler and Pressure Vessel  
4 Inspectors, and a Minnesota certificate of competency and shall  
5 place on inspection reports the serial number of their Minnesota  
6 state certificate of competency. The serial number of the  
7 applicant's national board commission must be registered with  
8 the division before or at the time of application for the  
9 Minnesota certificate of competency. A Minnesota state  
10 certificate of competency is issued by the division according to  
11 Minnesota Statutes, section 183.38, subdivision 2.

12 Subp. 2. [See repealer.]

13 5225.1225 AUTHORIZED INSPECTOR.

14 Subpart 1. Qualifications. In order to qualify as an  
15 authorized inspector, an applicant shall possess a National  
16 Board of Boiler and Pressure Vessel Inspectors' Commission from  
17 the National Board of Boiler and Pressure Vessel Inspectors and  
18 receive an A endorsement and obtain a current Minnesota  
19 certificate of competency. Persons with a B endorsement as of  
20 September 1, 1992, may maintain their status as authorized  
21 inspectors by complying with national board requirements and  
22 annual renewal requirements if they are supervised by a  
23 supervisor with a B endorsement. An authorized inspector may  
24 perform any inspection duty, including shop and in-service.

25 Subp. 2. Examinations. State or insurance company  
26 commissioned inspectors seeking a license as an authorized  
27 inspector on new construction of boilers or pressure vessels  
28 shall qualify for an A endorsement by passing a written  
29 examination prepared by the National Board of Boiler and  
30 Pressure Vessel Inspectors. The examinations will be held at  
31 Saint Paul, Minnesota, by the division at times the commissioner  
32 may prescribe.

33 5225.1300 OPERATORS OF RAILROAD LOCOMOTIVES.

34 Operators of railroad locomotives which are utilized for  
35 such stationary purpose as generating steam for power or heating



1 are required to have the proper class of operating engineer  
2 licenses issued by the division.

3 Operators of railroad locomotives engaged in intrastate or  
4 interstate commerce and operators of boilers in private  
5 residences and dwellings with accommodations for five or fewer  
6 families are not required to possess operating engineers'  
7 licenses issued by the division.

8 5225.1350 PROPERTY DAMAGE OR PERSONAL INJURY REPORT.

9 Insurance inspectors or owners of boilers shall make a  
10 written report to the chief boiler inspector of incidents  
11 involving boilers and pressure vessels covered under this  
12 chapter that result in personal injury, destruction of the  
13 object, any property damage, or repairs not of a routine  
14 nature. These incidents shall be reported on the National Board  
15 of Boiler and Pressure Vessel Inspectors, Incident Report form.

16 5225.1400 VIOLATIONS.

17 Failure of any licensee to comply with any provision of  
18 this chapter shall constitute grounds for suspending the  
19 offending operating engineer's license for from ten to 30 days,  
20 and for repeated or grave offenses an operating engineer's  
21 license may be revoked as provided in part 5225.0880.

22 INSPECTIONS

23 5225.2050 MAXIMUM ALLOWABLE WORKING PRESSURE.

24 The maximum allowable working pressure for boilers and  
25 pressure vessels must not exceed that determined for those  
26 objects in Section I for high pressure boilers, Section IV for  
27 low pressure boilers, or Section VIII for unfired vessels of the  
28 American Society of Mechanical Engineers Boiler and Pressure  
29 Vessel Code.

30 5225.2100 STAMPS ON BOILER AND PRESSURE VESSELS.

31 Every boiler or pressure vessel, unless specifically  
32 exempted by Minnesota Statutes, section 183.56, for use in this  
33 state must conform in every detail to the boiler and pressure  
34 vessel laws of the state as provided in Minnesota Statutes,

1 chapter 183, and this chapter. Each boiler or pressure vessel  
2 must be constructed in compliance with and stamped with the  
3 respective American Society of Mechanical Engineers Code Symbol  
4 Stamp, or international code symbol accepted by the National  
5 Board, and the National Board symbol registration number or the  
6 Minnesota Special (MINN. SPC). Stamping must be witnessed by an  
7 Authorized Inspector. Information as to construction stamp  
8 requirements shall be provided to contractors by the chief  
9 boiler inspector. The chief boiler inspector may, at the  
10 request of the manufacturer, designate any authorized inspector  
11 to make the shop inspection, for which the manufacturer shall  
12 pay the required fee pursuant to part 5225.8600, subpart 4, plus  
13 travel expenses.

14 All owners of new or used boilers shall notify the division  
15 before the installation is completed. Before the equipment is  
16 put into service, hydrostatic testing must be applied to the  
17 boiler and appurtenances and witnessed by a commissioned  
18 inspector who holds a Minnesota certificate of competency. If  
19 the boiler and appurtenances are in conformance with adopted  
20 standards, the inspector must file the results with the chief  
21 boiler inspector and a certificate of inspection will be issued  
22 for that object.

23 5225.2200 ITEMS REQUIRING IN-SERVICE INSPECTION.

24 Subpart 1. Inspection. A commissioned inspector holding a  
25 Minnesota Certificate of Competency shall inspect all boilers or  
26 steam generators, fired or unfired pressure vessels, and  
27 appurtenances for their safe operation and condition, and all  
28 pressure piping connecting them to the appurtenances, and all  
29 piping up to the first stop valve, or the second valve when two  
30 are required in accordance with inspection requirements in  
31 Section 1 of the American Society of Mechanical Engineers Boiler  
32 and Pressure Vessel Code and the National Board Inspection  
33 Code. They must be properly prepared for inspection and the  
34 inspector given at least 48 hours' notice before the time of the  
35 inspection.

1 Subp. 2. Certificate of inspection. A certificate of  
2 inspection will be issued by the division upon the object  
3 passing the inspection required by the division and the payment  
4 of the appropriate fee.

5 Subp. 3. Certificate of exemption. An exemption  
6 certificate will be issued as provided in part 5225.3150,  
7 subpart 2, if the object is in conformance with part 5225.3150,  
8 subpart 1.

9 Subp. 4. Display of certificate. A certificate of  
10 inspection or exemption issued by the division must be displayed  
11 in a conspicuous place on or near any boiler or pressure vessel  
12 subject to this chapter.

13 5225.2300 EXCEPTIONS TO THIS CHAPTER.

14 The objects described in Minnesota Statutes, section  
15 183.56, clauses (1) to (18), are exempt from this chapter.

16 5225.2400 RELOCATION OF USED BOILERS OR VESSELS.

17 Before the transfer of ownership of or before relocation of  
18 a used boiler or pressure vessel or the owner shall cause it to  
19 be inspected by a commissioned inspector, and in computing the  
20 safe working pressure, the inspector shall use a safety factor  
21 of at least six on noncode boilers and pressure vessels having a  
22 butt strap joint and at least a factor of seven on a lap seam  
23 joint. If the used boiler or pressure vessel changes ownership,  
24 the new owner shall arrange the inspection.

25 For purposes of this part, noncode boilers and pressure  
26 vessels are those that have not been built to the American  
27 Society of Mechanical Engineers Boiler and Pressure Vessel Code  
28 specifications.

29 5225.2600 REPAIRS AND ALTERATIONS; REPORTING.

30 Subpart 1. Prior notice of repair or alteration. The  
31 owner or person in charge of a boiler, steam generator, or  
32 pressure vessel shall notify the Chief Boiler Inspector or, if  
33 the object is insured, the owner or person in charge shall  
34 notify the insurer, before each welded or riveted repair or any

1 alteration is made to the pressure containing parts of a boiler  
2 or pressure vessel. The authorized inspector will review and  
3 accept or reject the computations for the safe working pressure  
4 of the repaired or altered object.

5 Subp. 2. Standard of repairs. The National Board of  
6 Boiler and Pressure Vessel Inspectors' repair (R) stamp and  
7 current Repair Certificate of Authorization are required for  
8 performing any welded or riveted repairs or any alterations to  
9 any boiler or pressure vessel subject to inspection as specified  
10 in Minnesota Statutes, sections 183.375 to 183.62.

11 All alterations must be in compliance with the National  
12 Board Inspection Code and the American Society of Mechanical  
13 Engineers Boiler and Pressure Vessel Code sections for  
14 construction of that object.

15 Subp. 3. Inspection and reporting. Any welded or riveted  
16 repairs or any alteration must be reported by the repair firm to  
17 the authorized inspection agency responsible for the in-service  
18 inspection of the boiler or pressure vessel. The inspection of  
19 the repair or alteration and the certification of repairs and  
20 alterations required by subpart 2 must be made by an authorized  
21 inspector who is employed by an authorized inspection agency  
22 under contract with the firm doing the repairs.

23 An authorized inspection agency is:

24 A. the division;

25 B. another governmental regulatory agency which is  
26 accepted by the National Board of Boiler and Pressure Vessel  
27 Inspectors as an inspection agency; or

28 C. the insurance company authorized by Minnesota  
29 Statutes, chapter 183, to provide the in-service inspection of  
30 the boiler or pressure vessel.

31 When a welded repair does not require form R-1 as  
32 prescribed by the National Board Inspection Code, then  
33 documentation detailing the repair and any test results must be  
34 submitted to the chief boiler inspector and the owner by the  
35 repair firm, which must retain a copy.

36 It is the responsibility of the repair firm making the

1 welded or riveted repair or alteration to arrange for  
2 inspection, documentation, and certification of the work, and to  
3 ensure acceptance of the work by an authorized inspection agency.

4 Completion of the National Board of Boiler and Pressure  
5 Vessel Inspectors' R-1, Report of Welded Repair or Alteration,  
6 form is required for all welded or riveted repairs not of a  
7 routine nature and all alterations as required by the National  
8 Board Inspection Code Chapter 3. It is the responsibility of  
9 the repair firm to prepare the form, certify it, and submit it  
10 to the authorized inspector for acceptance. Distribution of the  
11 form must be as provided in the National Board Inspection Code  
12 with one copy of the completed form sent to the division.

13 5225.2610 OWNER REPAIR PROGRAM.

14 Subject to written approval of their repair program from  
15 the department, an owner with a boiler exceeding 200,000 pounds  
16 per hour of steam may perform repairs to their boiler systems or  
17 safety relief valves as allowed by and meeting the requirements  
18 of Sections I, IV, and VIII of the American Society of  
19 Mechanical Engineers Boiler and Pressure Vessel Code and the  
20 National Board Inspection Code. The granting of the approval  
21 does not allow repair of high pressure piping under the  
22 authority of and as defined by Minnesota Statutes, section  
23 326.461.

24 The owner repair program must include: organization,  
25 design control, material control, control of work, inspection,  
26 welding, nondestructive testing, records, repair reporting, and  
27 provision for system test and inspection by a commissioned  
28 inspector holding a Minnesota Certificate of Competency. Before  
29 acceptance of the repair program, the chief boiler inspector  
30 must review the program. The program shall not be approved  
31 until the chief boiler inspector is satisfied that the program  
32 elements listed in this part are complete and acceptable and the  
33 allowance for independent third-party inspection controls are  
34 adequate and acceptable.

35 The commissioner of the department may withdraw program

1 approval, with cause, upon the recommendation of the chief  
2 boiler inspector. The commissioner must provide the owner with  
3 written notification of the department's intent to withdraw  
4 program approval and the reasons for the action. The owner,  
5 upon receipt of the commissioner's notification, has 30 calendar  
6 days to implement the required corrective actions to the  
7 satisfaction of the chief boiler inspector. The acceptance or  
8 rejection of all corrective actions shall be by the chief boiler  
9 inspector and must be in writing.

10 5225.2700 REPAIRS BY INSPECTORS PROHIBITED; EXCEPTION.

11 Boiler inspectors shall not make any of the repairs they  
12 order to boilers. If, however, no competent mechanic is  
13 available in the locality in which the boiler is located, the  
14 chief boiler inspector may grant permission to the inspector to  
15 make emergency or minor repairs.

16 5225.3000 PROFESSIONAL CONDUCT OF INSPECTORS.

17 Boiler inspectors shall at all times extend courteous  
18 treatment to those whom they serve and to the public, and make  
19 special effort to avoid controversy by referring disputes to the  
20 office of the chief boiler inspector. Inspectors shall not  
21 commence any legal proceedings relating to the enforcement of  
22 boiler, license, or inspection laws prior to submitting the  
23 matter to the chief boiler inspector; nor shall they divulge to  
24 any person their personal opinions of findings pertaining to  
25 their duties as inspectors or disclose to the public any matter  
26 of a private nature in the possession of the division.

27 5225.3100 INSURED COVERAGE REPORT.

28 Every insurance company insuring a boiler or pressure  
29 vessel must notify the division in writing within 30 days of the  
30 effective date of coverage (including binders). It must also  
31 mail a duplicate of the notification to the assured, who shall,  
32 until receipt of exemption certificate, display the notice in a  
33 conspicuous place near the boiler or pressure vessel. The  
34 person, firm, or corporation operating the insured boiler or

1 pressure vessel shall procure and display an exemption  
2 certificate as provided in part 5225.3150 within a period of 60  
3 days from the date of coverage, and keep it displayed in a  
4 conspicuous place near the boiler or pressure vessel.

5 If the certificate is not displayed within 60 days from  
6 date of coverage the boiler inspector from the division shall  
7 make the usual and customary inspection of the boiler or  
8 pressure vessel and charge the statutory fee.

9 5225.3150 INSURANCE COMPANY INSPECTIONS.

10 Subpart 1. Annual inspection report. An insurance company  
11 insuring a boiler or pressure vessel pursuant to Minnesota  
12 Statutes, section 183.57, shall mail the annual inspection  
13 report to the chief boiler inspector within 15 days of the  
14 inspection and a copy to the owner or operator of the boiler.  
15 If a report is not filed with the department within 45 days of  
16 the date the annual inspection is due, a department boiler  
17 inspector shall make the required inspection and charge the  
18 insurance company at the shop inspection rate for the  
19 inspection, including the reasonable costs of the inspection  
20 such as the mileage, meals, and hotel expenses incurred.

21 Subp. 2. Certificate. The division shall issue a  
22 certificate of exemption from division inspection for each  
23 boiler or pressure vessel for which it has received an  
24 inspection report from the insurer. Exemption from inspection  
25 by the division does not signify exemption from any of the other  
26 requirements of Minnesota Statutes, chapter 183, or this  
27 chapter. The fees are as provided in part 5225.8600, subpart  
28 6. The certificate of exemption expires when the boiler or  
29 pressure vessel is due for its next inspection under Minnesota  
30 Statutes, section 183.57, subdivision 1.

31 5225.3200 APPEALS.

32 Any person aggrieved by any action or decision of a boiler  
33 inspector may request a reconsideration by the commissioner, in  
34 the manner provided for a conference under part 5225.0880,  
35 subpart 3. The commissioner may affirm, modify, or rescind the

1 action or decision. The parties affected by an action or  
2 decision of the commissioner may request a hearing at the Office  
3 of Administrative Hearings under Minnesota Statutes, sections  
4 14.57 to 14.69, and as provided in part 5225.0880, subparts 7  
5 and 8.

6 BOILER SAFETY

7 5225.4000 BLOWOFF TANKS.

8 Blowoff tanks must meet the requirements of the National  
9 Board Inspection Code 27, Rules and Recommendations for the  
10 Design and Construction of Boiler Blowoff Systems.

11 5225.4100 SAFETY VALVES.

12 Every high pressure or low pressure boiler must have at  
13 least one safety valve. A high pressure boiler of more than 500  
14 square feet of water heating surface must have two or more  
15 safety valves. All safety valves must meet the requirements of  
16 Section I, IV, or VIII of the American Society of Mechanical  
17 Engineers Boiler and Pressure Vessel Code, and be so stamped,  
18 and be set no higher than the maximum allowable working pressure  
19 on the inspector's certificate for that boiler.

20 Every safety valve must be connected to the boiler  
21 independent of any other connections, and attached as close as  
22 possible to the boiler, without any unnecessary pipe or fitting  
23 and must stand in an upright position. No valve of any  
24 description may be placed between the required safety valve or  
25 valves and the boiler, nor on the discharge pipe between the  
26 safety valve and the point of discharge. All safety valves must  
27 discharge at a point of safety not less than seven feet from  
28 running boards, platforms, or adjacent areas. No reduction in  
29 pipe size is allowed in discharge piping from a safety valve.  
30 The discharge pipe must be of sufficient size to allow complete  
31 discharge without back pressure.

32 5225.4200 WATER GAGE.

33 When the boiler operating pressure exceeds 100 pounds per  
34 square inch, the watergauge glass must be fitted with either a



1 gate-type or plug-type valved drain to a safe discharge point.

2 If the lowest water gage shutoff valve is more than seven  
3 feet above the floor or platform from which it is operated, the  
4 operating mechanism must indicate by its position whether the  
5 valve is opened or closed. Installation must meet the  
6 requirements of Section I of the American Society of Mechanical  
7 Engineers Boiler and Pressure Vessel Code for high pressure  
8 boilers or Section IV for low pressure boilers.

9 5225.4300 WATER COLUMN SHUTOFFS.

10 When shutoffs are used in pipe connections between a boiler  
11 and water column or between a boiler and the shutoff valves  
12 required for the gage glass they must be either  
13 outside-screw-and-yoke or leverlifting type gate valves or  
14 stopcocks with levers permanently fastened and marked in line  
15 with their passage, or other through-flow construction to  
16 prevent stoppage by deposits of sediment. These valves must  
17 indicate by the position of the operating mechanism whether they  
18 are in open or closed position; and the valves or cocks shall be  
19 locked or sealed open. Where valves are used they must be a  
20 type with the plug held in place by a guard or gland.

21 The steam and water connections to a water column,  
22 including all pipe, fittings, valves, and drains must be readily  
23 accessible for internal inspection and cleaning by providing a  
24 cross or fitting with a back outlet at each right-angle turn, or  
25 by using pipe bends or fittings which will permit the passage of  
26 a rotary cleaner. The water column shall be fitted with at  
27 least a three-fourths inch pipe size valve drain with a suitable  
28 connection to a safe discharge point.

29 5225.4400 STEAM GAGE.

30 For steam boilers the steam gages must meet the  
31 requirements of Section I for high pressure boilers, and section  
32 IV for low pressure boilers of the American Society of  
33 Mechanical Engineers Boiler and Pressure Vessel Code to  
34 correctly record pressure.

35 Each steam gage must be connected to a siphon of at least

1 one-fourth inch pipe size and be fitted with a valve provided  
2 with a tee or lever handle arranged to be parallel to the pipe  
3 in which it is located when the valve is open. If the pipe is  
4 longer than ten feet, a shutoff valve or valve arranged so that  
5 it can be locked or sealed open may be used near the boiler.

6 The dial of the steam gage must be graduated to  
7 approximately double the pressure at which the safety valve is  
8 set but in no case to less than 1-1/2 times this pressure.

9 5225.4500 VALVES AND FITTINGS.

10 Valves and pipe fittings must conform to the American  
11 Society of Mechanical Engineers Boiler and Pressure Vessel Code  
12 which adopts American National Standards Institute standards for  
13 the maximum allowable working pressure. Fusion welded joints  
14 are permitted if the welding procedure and operator are  
15 qualified as required in Section IX of the American Society of  
16 Mechanical Engineers Boiler and Pressure Vessel Code.

17 All valves and fittings on all feedwater piping from the  
18 boiler up to and including the first stop valve and the check  
19 valve must be equal at least to the requirements of the standard  
20 accepted by Section I of the American Society of Mechanical  
21 Engineers Boiler and Pressure Vessel Code for pressure 1.25  
22 times the maximum allowable working pressure of the boiler.

23 All valves and fittings for feedwater piping between the  
24 required check valve and the globe or regulating valve, and  
25 including any bypass piping up to and including the shutoff  
26 valves in the bypass, must be equal at least to the saturated  
27 requirements set out in Section I of the American Society of  
28 Mechanical Engineers Boiler and Pressure Vessel Code. The  
29 valves and fittings must have a pressure rating at least equal  
30 to the expected operating pressure required to feed the boiler  
31 for a saturated steam temperature corresponding to the minimum  
32 set pressure of any safety valve on the boiler drum or for the  
33 actual temperature of the water, whichever is greater.

34 Valves and fittings made of any material permitted by  
35 Section I of the American Society of Mechanical Engineers Boiler

1 and Pressure Vessel Code for pressure ratings of 125 pounds or  
2 more and marked as required by the code may take up to 20  
3 percent reduction in pressure rating when used for feed line and  
4 blowoff service.

5 5225.4700 COMMON MAIN CONNECTION.

6 When two or more boilers are connected to a common steam  
7 main, the steam connection from each boiler having a manhole  
8 opening must be fitted with two stop valves having an ample  
9 free-blow drain between them. The stop valves installed on high  
10 pressure steam boilers must consist of either one automatic  
11 nonreturn valve, set next to the boiler and a second valve of  
12 the outside-screw-and-yoke type; or two valves of the  
13 outside-screw-and-yoke type. The free blow drain must ensure  
14 complete removal of all condensate and steam from between the  
15 two stop valves.

16 5225.4800 BLOWOFF PIPING; VALVES AND FITTINGS.

17 Each boiler must have a bottom blowoff pipe fitted with a  
18 valve or cock in direct connection with the lowest water space  
19 practicable.

20 All fittings between the boiler and valves must be of steel  
21 for pressure over 100 pounds per square inch.

22 For pressures up to 200 pounds per square inch cast iron  
23 valves may be used if they meet the requirements of Section I of  
24 the American Society of Mechanical Engineers Boiler and Pressure  
25 Vessel Code, which adopts the American National Standards  
26 Institute Standard for 250 pounds; and if of steel must be equal  
27 to the requirements of Section I of the American Society of  
28 Mechanical Engineers Boiler and Pressure Vessel Code, which  
29 adopts the American National Standards Institute Standard. For  
30 pressures over 200 pounds per square inch the valves or cocks  
31 must be of steel and at least equal to the requirements of  
32 Section I of the American Society of Mechanical Engineers Boiler  
33 and Pressure Vessel Code which adopts the American National  
34 Standards Institute Standard.

## 1 5225.4900 BLOWOFF PIPING.

2 On all stationary boilers, when the allowable working  
3 pressure exceeds 100 pounds per square inch, each bottom blowoff  
4 pipe must have two slow-opening valves, or one slow-opening  
5 valve and a quick-opening valve or a cock complying with Section  
6 VII of the American Society of Mechanical Engineers Boiler and  
7 Pressure Vessel Code. The quick-opening valve, if used, must be  
8 located nearest the boiler.

9 The bottom blowoff pipes of every traction and/or portable  
10 boiler must have at least one slow-or-quick-opening blowoff  
11 valve or cock conforming to the American Society of Mechanical  
12 Engineers Boiler and Pressure Vessel Code Section VII  
13 requirement.

14 Blowoff valves and cocks must be located in a convenient  
15 and accessible place, using extension valve stems if necessary  
16 to secure safe operation.

## 17 5225.5000 FEED PIPING AND CHECK VALVE.

18 The feed-pipe must be provided with a check valve near the  
19 boiler and a valve or cock between the check valve and the  
20 boiler. When two or more boilers are fed from a common source,  
21 there must be a globe or regulating valve on the branch to each  
22 boiler between the check valve and the source of supply.  
23 Wherever globe valves are used on feed piping, the inlet must be  
24 under the disk.

25 A combination stop-and-check valve in which there is only  
26 one seat and disk, and a valve stem is provided to close the  
27 valve when the stem is screwed down, must be considered only as  
28 a stop valve, and a check valve must be installed as provided in  
29 the first paragraph of this part.

## 30 5225.5100 FEEDWATER SUPPLY.

31 A high pressure boiler having more than 500 square feet of  
32 water heating surface (50 BHP) must have at least two means of  
33 feeding. Each source of feeding must be capable of supplying  
34 water to the boiler at a pressure of three percent higher than  
35 the highest setting of any safety valve on the boiler. For

1 boilers that are fired with solid fuel not in suspension, and  
2 for boilers whose setting or heat source can continue to supply  
3 sufficient heat to cause damage to the boiler if the feed supply  
4 is interrupted, one such means of feeding must not be  
5 susceptible to the same interruption as the other, and each  
6 source must provide sufficient water to prevent damage to the  
7 boiler.

8       When electrically driven feed pumps are used and there is  
9 no other reliable independent source of electrical supply, there  
10 must be maintained ready for service steam-driven feed pumps or  
11 injectors (inspirators) of sufficient capacity to safeguard the  
12 boilers in case of failure of electric power.

13 5225.5200 ELECTRIC BOILERS.

14       All appliances required for electric steam boilers shall be  
15 attached in accordance with the following:

16       A cable at least as large as one of the incoming power  
17 lines to the boiler must be provided for grounding the boiler  
18 shell. This cable must be permanently fastened on some part of  
19 the boiler and must be grounded in an approved manner. A  
20 suitable screen or guard shall be provided around high tension  
21 bushings and a sign posted warning of high voltage. This screen  
22 or guard must be located so that it will be impossible for  
23 anyone working around the boiler to accidentally come in contact  
24 with the high tension circuits.

25       Each kilowatt of electrical energy consumed by an electric  
26 steam boiler, operating at maximum rating, must be considered  
27 the equivalent of one square foot of heating surface of a fire  
28 tube boiler when determining the required amount of safety valve  
29 relieving capacity.

30               NAVIGATION OF POWER BOATS ON INLAND WATERS

31 5225.6050 INCORPORATION BY REFERENCE.

32               [For text of subps 1 and 2, see M.R.]

33       Subp. 3. Use of terms. For the purpose of parts 5225.6000  
34 to 5225.8600, the following terms in incorporated sections of  
35 Code of Federal Regulations have the meanings given in items A

1 and B.

2 A. "Officer in charge, marine inspection," or  
3 "officer in charge" means a "chief boiler inspector."

4 B. "Marine inspector" means a "designated boat  
5 inspector" and is used in this chapter to mean a boat inspector  
6 who is designated by the chief boiler inspector of the  
7 department.

8 5225.6140 INSPECTION OF BOATS.

9 Subpart 1. **Inspections required.** Annual inspection by the  
10 department is required of any boat that is not under the  
11 jurisdiction of the Coast Guard.

12 Subp. 2. **Inspections optional.** Boats that are less than  
13 21 feet in length may be inspected by the department at the  
14 owner's request if the owner pays for the inspection. Boats  
15 under 21 feet must meet the safety equipment requirements  
16 established by the Minnesota Department of Natural Resources.

17 Subp. 3. **Inspection standards.** The division shall conduct  
18 the inspection according to Code of Federal Regulations, title  
19 46, subparts 175.20, 176.05-5, 176.05-10, and 176.25, and the  
20 requirements in parts 5225.6000 to 5225.8600.

21 5225.6150 LICENSE REQUIREMENTS.

22 Subpart 1. **General.** The operation of a boat requires a  
23 valid, current Minnesota pilot's license issued by the division.

24 Subp. 2. **Requirements for licensure.** An applicant for a  
25 pilot's license must:

26 A. fill out an application on forms provided by the  
27 division;

28 B. submit an affidavit from a person who can attest  
29 to the piloting experience of the applicant as provided in  
30 subpart 3;

31 C. pass an examination prepared by the chief boiler  
32 inspector as described in part 5225.0500, subpart 1, with a  
33 score of at least 70 percent; and

34 D. pay the license fee as provided in part 5225.8600.

35 Subp. 3. **Experience documentation.** An applicant must have

1 at least 15 hours of training experience operating a boat. The  
2 training experience must be supervised by a licensed pilot. The  
3 applicant must submit an affidavit completed by the supervising  
4 licensed pilot attesting to the applicant's training  
5 experience. The applicant must submit the affidavit before  
6 taking the examination.

7 Subp. 4. Exemptions from affidavit and examination  
8 requirement. The affidavit and examination requirement shall be  
9 waived for an applicant possessing a current United States Coast  
10 Guard pilot's license. An applicant possessing a current United  
11 States Coast Guard pilot's license must complete an application  
12 and pay the fee set by part 5225.8600.

13 Subp. 5. Effect of failure of examination. An applicant  
14 who fails to pass the examination is not eligible to take  
15 another examination for ten days. The fee paid for the  
16 examination shall not be refunded.

17 5225.6160 LICENSE EXPIRATION AND RENEWAL.

18 Subpart 1. Timing. Licenses for pilots, unless revoked,  
19 are valid for one year from the date of issuance, with privilege  
20 of renewal without examination upon application to the division,  
21 and payment of a renewal fee within ten calendar days of the  
22 expiration date. The renewal license must be given a  
23 consecutive issue number and the same monthly date as the  
24 original issue. An application for renewal may not be submitted  
25 before 30 days preceding the expiration date of the license.  
26 Pilots who fail to renew their licenses before the ten-day grace  
27 period has expired are subject to the requirements in subparts 2  
28 and 3.

29 Subp. 2. Application for renewal within one year of  
30 expiration. A license that has expired may be renewed within  
31 one year of expiration without an examination by filing an  
32 application for renewal and submitting the expired renewal fee  
33 required in part 5225.8600, subpart 2, item C.

34 Subp. 3. Renewal application after one year of expiration.  
35 After one year after the expiration of a license, the license

1 will not be renewed. An applicant must reapply as provided in  
2 part 5225.6150.

3 5225.6700 REPORTS OF DAMAGE.

4 A pilot of a boat shall report in writing to the office of  
5 the chief boiler inspector of the department any accident  
6 causing either death, an injury that requires hospitalization,  
7 or damage in excess of \$1,000. In the event of a death, the  
8 report must be made within 48 hours. In the event of an injury  
9 or property damage, the report must be made within five days.  
10 The pilot shall also promptly report any other pilot who does  
11 not properly discharge the duties of a pilot and any person who  
12 flashes a light into the face of a pilot or otherwise commits an  
13 act that endangers the safety of a pilot or passengers of a boat.

14 5225.6940 DESIGN CHANGES.

15 Subpart 1. Approval of design. The division must be  
16 notified before any design change is made to a boat that changes  
17 the length, draft, center of gravity, or superstructure of the  
18 boat. Drawings, sketches, or written specifications of the  
19 changes must be reviewed and approved by a marine architect  
20 designated by the boiler division. The marine architect shall  
21 make a report regarding the proposed design changes to the chief  
22 boiler inspector. Final approval or disapproval of design  
23 changes will be made by the chief boiler inspector. All costs  
24 of the review by the architect must be paid by the boat owner.

25 [For text of subp 2, see M.R.]

26 5225.8600 FEES.

27 [For text of subpart 1, see M.R.]

28 Subp. 2. Engineer licenses.

29 [For text of item A, see M.R.]

30 B. The fees for license renewal under parts 5225.0300  
31 and 5225.6160 are as follows:

- 32 (1) chief engineer, \$25;  
33 (2) first class engineer, \$20;  
34 (3) second class engineer, \$15;



1 (4) special engineer, \$10; and

2 (5) pilot, \$10.

3 C. The fees for expired renewals under part  
4 5225.0300, subpart 2, and 5225.6160, subpart 2, are as follows:

5 (1) chief engineer, \$50;

6 (2) first class engineer, \$30;

7 (3) second class engineer, \$25;

8 (4) special engineer, \$20; and

9 (5) pilot, \$30.

10 D. The fee for replacement of a lost license of any  
11 class is \$15.

12 [For text of subps 3 to 6, see M.R.]

13 Subp. 7. Boat inspections. The fees for boat inspections  
14 under Minnesota Statutes, section 183.545, subdivision 1, are as  
15 follows:

16 A. boat under 30 feet, \$50;

17 B. boat from 30 to no more than 40 feet, \$60;

18 C. boat over 40 to no more than 50 feet, \$70; and

19 D. boat over 50 feet, \$80.

20 Subp. 8. Hobby boilers. The inspection fee for hobby  
21 boilers or traction boilers, not previously certified in  
22 Minnesota is \$75. The inspection fee for a subsequent  
23 inspection of a hobby or traction boiler is \$45.

24 Subp. 9. Date due. As provided in Minnesota Statutes,  
25 section 183.54, subdivision 2, fees for inspection are payable  
26 at the time of the delivery of the certificate.

27 Subp. 10. Failure to pay fee. If the fee is not paid  
28 within 30 days from the date of the inspection under Minnesota  
29 Statutes, section 183.54, subdivision 3, completion of delivery  
30 of the certificate will not occur. If the fee is not paid  
31 within 60 days from the date of the inspection, the commissioner  
32 may assess a penalty under Minnesota Statutes, section 183.001,  
33 or seal the object inspected.

34 5225.8700 PENALTY.

35 Boilers and boats subject to inspection under Minnesota

1 Statutes, chapter 183, must be inspected at least annually.  
2 Pressure vessels must be inspected at least every two years  
3 except as provided under Minnesota Statutes, section 183.45. An  
4 owner or chief operating engineer who fails to have an  
5 inspection in a timely manner shall pay to the division a  
6 penalty in the amount of \$500 for each three-month period that  
7 passes until the inspection occurs.

8 REPEALER. Minnesota Rules, parts 5225.1100; 5225.1200, subpart  
9 2; 5225.3400; 5225.3500; and 5225.9000, are repealed.