CHAPTER 5225
DEPARTMENT OF LABOR AND INDUSTRY
BOILERS AND POWER BOATS

LICENSES

5225.0010 SCOPE.

This chapter only addresses the manufacture, installation, repair, operation, safety, and inspection of boilers and pressure vessels as defined in parts 5225.0090 to 5225.9000 pursuant to Minnesota Statutes, sections 183.375 to 183.62. Other related codes on high pressure piping, building, electrical, and plumbing are available from State Documents, Department of Administration, 117 University Avenue, Saint Paul, Minnesota, 55155.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0090 INCORPORATION BY REFERENCE.

Subpart 1. **General.** To the extent referred to in this chapter, the codes and publications described in this part are incorporated by reference.

Subp. 2. **American Society of Mechanical Engineers Boiler and Pressure Vessel Code.** The American Society of Mechanical Engineers Boiler and Pressure Vessel Code is written and published by the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, New York 10017 and can be purchased from the same source. It is available for inspec-

tion at the Hill Reference Library, 80 East Fourth Street, Saint Paul, Minnesota 55102. It is subject to frequent change. The publication dates vary by subject. The most recent publication: July 1, 1986, as amended December 31, 1986, and December 31, 1987.

Subp. 3. **National Board Inspection Code.** The National Board Inspection Code is written and published by the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229 and can be purchased from the same source. It is available for inspection at the Minnesota Law Library, 117 University Avenue, Saint Paul, Minnesota 55155. It is subject to frequent change. The publication date varies. The most recent publication: July 1, 1986, as amended December 31, 1986, and December 31, 1987.

Subp. 4. **American Society of Mechanical Engineers Codes and Standards.** The American Society of Mechanical Engineers Codes and Standards are submitted for publication to the American National Standards Institute, 1430 Broadway, New York, New York 10018 and can be purchased from the same source. They are available for inspection at the Hill Reference Library, 80 West Fourth Street, Saint Paul, Minnesota 55102. They are subject to frequent change. The publication dates vary by subject. The most recent publication: July 1, 1986, as amended December 31, 1986, and December 31, 1987.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0100 APPLICATION FOR STEAM ENGINEER OR PILOT LICENSE.

Any person desiring to take an examination for a license as a steam engineer or pilot shall make written application therefor under oath, on blanks furnished by the boiler inspector. The application shall be accompanied by a corroborating affidavit of at least one employer or a steam engineer possessing not less than a second class engineer's license, or pilot, as the case may be, certifying to the applicant's experience as stated in his application. If such affidavits are not obtainable, satisfactory evidence of the applicant's experience must be furnished.

Statutory Authority: *MS s 175.171*

5225.0200 [Repealed, 10 SR 1379]

5225.0300 EXPIRATION AND RENEWALS.

Subpart 1. **Timing.** Licenses for engineers and pilots, unless revoked, are valid for a period of one year from the date of issuance, with privilege of renewal without examination upon application to the Department of Labor and Industry, Boiler Inspection Division, and payment of a renewal fee within ten calendar days of the expiration date. The renewal license must be given a consecutive issue number and the same monthly date as the original issue. An application for renewal may not be presented before 30 days preceding the expiration date of the license. Engineers who fail to renew their licenses before the ten day grace period has expired are subject to subparts 2 and 3.

Subp. 2. **Renewal application within one year of expiration.** A license that expired within one year of application for renewal may be renewed without an examination on filing an application for renewal, accompanied by the expired renewal fee required in part 5225.8600.

Subp. 3. **Renewal application beyond one year of expiration.** A license that expired more than one year before the date of application for renewal may be renewed by filing an application for renewal, accompanied by the fee required by part 5225.8600, subpart 2, item C, and passing the examination required by part 5225.0500.

Statutory Authority: *MS s 16A.128; 183.44; 183.545; 326.46 to 326.50*

History: *12 SR 1148*

5225.0400 BASIC LICENSE REQUIREMENT.

No person shall have charge of as engineer or operate any steam boiler plant who does not possess a license of the class required to operate such steam boiler plant.

Statutory Authority: *MS s 175.171; 183.501*

5225.0500 EXAMINATIONS.

Subpart 1. **Preparation of written examination.** The examination questions will be prepared by the chief boiler inspector. All examinations must be written unless the applicant is unable to write, in which case the examination will be oral for a special or second class license. The right to an oral examination for a first or chief class license shall be determined by the chief boiler inspector based on the applicant's ability to demonstrate reading comprehension of statutes, rules, technical boiler operation manuals, and safety warnings. Decisions of the chief boiler inspector regarding application for oral examination may be appealed to the commissioner under part 5225.3200. A written record of the examination shall be made, and examination papers will be kept on file for a period of at least one year.

Subp. 2. **Minimum grade.** No license of any class will be granted to any applicant who fails to obtain a score of 75 percent in an examination, nor may any other grade of license be granted.

Subp. 3. **Effect of failure.** Applicants who fail to pass an examination shall not be eligible to take another examination for the same class of license within the following periods:

A. special engineer's, hobby, or pilot's license, ten days;

B. first and second class license, 30 days; and

C. chief's license, 60 days.

Failure of an applicant to obtain a passing score will not affect the status of any license previously granted, but the fee paid for the examination will not be refunded.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0550 DOCUMENTATION OF EXPERIENCE REQUIREMENTS FOR LICENSURE AS A BOILER OPERATOR.

Subpart 1. **Compliance requirements.** All applicants must comply with chapter 5225 and Minnesota Statutes, sections 183.375 to 183.62. Applicants with previous experience in a jurisdiction requiring licensure must show proof of compliance with the licensure requirements of that jurisdiction in order to receive credit for the experience. All applicants for licensure as a pilot, hobby boiler operator, or boiler operator shall provide documentation of operating experience for the level of class/grade applied for in accordance with subparts 2 to 9.

Subp. 2. **Special class experience requirements.** A special class license requires no previous experience and a signed application form.

Subp. 3. **Second class experience requirements.**

A. A second class license requires: one year of experience on a boiler of proper size to receive the second class license as documented by:

(1) one year of special class licensed operation; or

(2) one year of conventional or nuclear experience as a coal passer, fireman, oiler, water tender, engineer, boiler tender, engineering or machinery watch officer, engine room supervisor, or propulsion engineer; or

(3) one year of actual experience operating a boiler of sufficient size to qualify for a second class license under Minnesota Statutes, section 183.51.

B. Acceptable forms for documentation are:

(1) an application form; and

(2) a valid, current Minnesota special class license; or

(3) a sworn affidavit signed by a plant manager, an officer of the company responsible for engineering operations, or a supervisory engineer of a utility plant of a plant of a size equal to or greater than required for a first class license under Minnesota Statutes, section 183.51, or a sworn affidavit signed by two or more shift engineers of a plant of a size equal to or greater than required for a first class license under Minnesota Statutes, section 183.51; or

(4) a DD 214 separation form, a discharge, a DD 792 performance evaluation, or an affidavit signed by a superior officer.

Subp. 4. **First class experience requirements.**

A. A first class license requires three years of experience on a boiler of proper size to receive the first class license as documented by:

(1) one year of special class licensed operation and two years of second class licensed operation, or two years of special class licensed operation and one year of second class licensed operation, or three years of special class licensed operation; or

(2) three years experience as a coal passer, fireman, oiler, water tender, engineer, boiler tender, engineering or machinery watch officer, engine room supervisor, or propulsion engineer; or

(3) three years of actual experience operating a boiler of sufficient size to qualify for a first class license under Minnesota Statutes, section 183.51.

B. Acceptable forms for documentation are:

(1) an application form; and

(2) a valid, current Minnesota boiler operator's license; or

(3) a sworn affidavit signed by a plant manager, an officer of the company responsible for engineering operations, or a supervisory engineer of a utility plant or a plant of a size equal to or greater than required for a first class license under Minnesota Statutes, section 183.51, or a sworn affidavit signed by two or more shift engineers of a plant of a size equal to or greater than required for a first class license under Minnesota Statutes, section 183.51; or

(4) a DD 214 separation form, a discharge, a DD 792 performance evaluation, or an affidavit signed by a superior officer.

Subp. 5. **Chief class experience requirements.**

A. A chief class license requires five years of experience on a boiler of proper size to receive the chief class license as documented by:

(1) any combination of five years licensed boiler operation with at least one year as a first class license holder; or

(2) five years experience as an engineer, boiler tender, engineering or machinery watch officer, engine room supervisor, or propulsion engineer; or

(3) five years of actual experience operating a boiler of sufficient size to qualify for a chief class license under Minnesota Statutes, section 183.51, of which at least two years must have been in a supervisory capacity either as a shift engineer in charge or as the chief engineer of the facility from which the claimed experience was obtained.

B. Acceptable forms for documentation are:

(1) an application form; and

(2) a valid, current Minnesota first class boiler operator's license; or

(3) a sworn affidavit signed by a plant manager, an officer of the company responsible for engineering operations, or a supervisory engineer of a facility where the claimed experience was obtained; chief engineer of a utility plant or a plant of a size equal to or greater than required for a first class license under Minnesota Statutes, section 183.51; or

(4) a DD 214 separation form, a discharge, a DD 792 performance evaluation, or an affidavit signed by a superior officer.

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

A. Second Class: one year of documented operation of a high pressure boiler which must include one year of operation of a steam engine or turbine.

B. First Class: three years of documented operation of a high pressure boiler of which at least two years must include operation of a steam engine or turbine.

C. Chief Class: five years of documented operation of a high pressure boiler, including at least two years acting as a shift engineer, and two years of operation of a steam engine or turbine.

Subp. 7. **Pilot license experience documentation.** An applicant for a pilot license for operation of a boat for hire must have at least one month or 30 days of experience operating a boat of not less than 20 feet in length and powered by a motor of not less than 50 horsepower, as rated by the manufacturer. Unless the applicant has a valid United States Coast Guard pilot's license, an affidavit of experience must be submitted by a person with sufficient knowledge of the applicant's experience prior to the applicant taking the examination. The person signing the affidavit must hold a valid Minnesota pilot's license or a United States Coast Guard pilot's license.

Subp. 8. **Traction engine or hobby boiler license experience documentation.** An applicant for a hobby boiler license must have at least 25 hours actual experience operating a steam traction engine under the supervision of a properly licensed operator, or a valid Minnesota second class, or higher, boiler operator's license. An affidavit of experience must be submitted by a person with sufficient knowledge of the applicant's experience prior to the applicant taking the examination. The person signing the affidavit must have observed the applicant operating the steam traction engine and must possess either a valid Minnesota hobby boiler license or a valid second class, or higher, Minnesota boiler operator's license.

Subp. 9. **Other acceptable supporting documentation.** Position descriptions, payroll records, jurisdiction or insurer inspection records, and documentation as to the size of the boilers operated may be used to support the application under subparts 2 to 5. Other operating experience may qualify the applicant for licensure under this part provided that the experience demonstrates the applicant's ability to safely and effectively perform at the level of licensure applied for. A decision of the chief inspector regarding applicability of other experience may be appealed to the commissioner pursuant to part 5225.3200.

Subp. 10. **Year defined.** For purposes of this chapter, a "year" is at least 2,000 hours.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0600 PROHIBITION AGAINST FALSE STATEMENTS IN APPLICATION.

Any material false statement in an application or affidavit such that the license would not have been granted if the accurate information had been provided, shall render the license void. The license shall not be determined to be void until the license holder has been provided with the opportunity for a meet and confer conference and/or an administrative hearing pursuant to part 5225.0880, subpart 5, and the requirements of the Administrative Procedure Act, and the charge of a materially false statement is upheld. In lieu of requesting an administrative hearing pursuant to part 5225.0880, subpart 5, the license holder may reapply for licensure by providing the proper documentation, retaking the appropriate examination and paying the application fee, or may voluntarily relinquish the license.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0700 LOSS OR DESTRUCTION OF LICENSE.

Upon presentation of a written statement of fact showing that a license has been lost, destroyed, or not received, a substitute license will be issued for a fee set by the commissioner of labor and industry.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0800 [Repealed, 13 SR 1917]

5225.0880 DISCIPLINARY PROCEDURES.

Subpart 1. **License revocation suspensions.** The commissioner may suspend or revoke the engineer's or pilot's license, direct the person to cease the action or operation, seal the boiler or pressure vessel, or seek a restraining order in district court if the holder of a license of any class, including pilots of boats for hire, or the owner of a boiler or pressure vessel violates any provision of Minnesota Statutes, sections 183.375 to 183.62, or this chapter, or operates or allows a boiler or pressure vessel to be operated under unsafe or dangerous conditions, or the holder of a license of any class, including pilots of boats for hire, has obtained a license of any grade based on a materially false application or affidavit, or an owner of a boiler fails to employ properly qualified engineers to operate the boiler or fails to make necessary repairs to an unsafe boiler or pressure vessel. In deciding what action to take, the commissioner shall consider the seriousness of the violation, the likelihood of a repeat occurrence, and the actual or potential threat to property or life caused by the violation.

Subp. 2. **Complaints.** All complaints related to license qualification or unsafe operating practices, whether filed by a boiler inspector of the Department of Labor and Industry or any other person, must be in writing to the chief boiler inspector on forms prescribed by the commissioner. Notices of unsafe objects shall be prepared by a boiler inspector of the Department of Labor and Industry on forms prescribed by the commissioner.

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

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

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

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

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

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

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

The commissioner shall give the owner of the boiler or pressure vessel the opportunity for a conference to show cause why the boiler or pressure vessel should not remain sealed until repaired or replaced or until properly licensed persons are available to operate the boiler. The owner must request a show cause conference in writing, in person, or by phone, within three working days of the date the notice of unsafe object was placed on the boiler or pressure vessel. If a request for a show cause conference is not timely received, the commissioner may order that the boiler or pressure vessel remain sealed pending repair, replacement, or operation by properly licensed personnel.

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

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

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

If no timely request for a meet and confer session is received, or if no mutually acceptable resolution can be reached at the meet and confer session, the commissioner shall initiate a contested case hearing pursuant to the Administrative Procedure Act to determine whether the license should be revoked.

Subp. 6. **Manner of conference.** A show cause conference or a meet and confer

session shall be conducted in an informal manner. No transcript will be made; however, the proceedings may be recorded. Each party may be represented by an attorney or may be accompanied by another person not an attorney. Parties may produce witnesses and documents to support their position.

Subp. 7. **Contested case hearing.** A person who disagrees with an order of the commissioner issued pursuant to subpart 3 or 4 may request a de novo hearing under the contested case proceedings of the Administrative Procedure Act within 30 days of service of the order. Upon receipt of the findings of fact and recommendations of the administrative law judge, the commissioner shall serve and file a final order by regular or certified mail. This order shall be the order of the commissioner in a contested case.

Subp. 8. **Injunctive relief.** At any time before or after the commissioner issues an order under this part, the commissioner may discontinue the administrative proceedings and initiate an action in district court for injunctive relief. A notice of unsafe object or an order of the commissioner issued pursuant to subpart 4, shall remain in effect until a district court judge orders otherwise.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.0900 DISPLAY OF LICENSE.

Licenses granted must be placed in a glassed frame and be displayed in a conspicuous place in the engine or boiler room, or pilot's station. Boiler plants operated by a contract boiler operator must have a copy of the engineer's license of each person who may be operating the boiler posted in each boiler room.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.1000 BOILER HORSEPOWER RATING.

In rating the horsepower of a boiler plant, inspectors shall use the horsepower of each boiler and compute the total horsepower of all boilers connected to the header, whether all the boilers are in use or not. It is the duty of all boiler inspectors, including those employed by insurance companies, to promptly report to the chief boiler inspector, any plant in which the engineer has no license or a license of a lower class than that required by law for the horsepower of the plant.

Ten kilowatts equals one boiler horsepower for the engineer license requirement.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.1100 ABSENCE FROM PLANT.

A shift engineer in a high pressure boiler plant of 150 boiler horsepower or more in operation shall not leave said plant for more than 15 minutes at any one time or be more than 200 feet away therefrom without leaving on duty an engineer with a licensee not lower than one grade below that required for the shift engineer.

Statutory Authority: *MS s 175.171*

5225.1200 INSURANCE COMPANY INSPECTORS.

Subpart 1. **License requirement.** Inspectors in the employ of insurance companies shall possess a National Board of Boiler and Pressure Vessels Inspectors' Commission issued by the National Board of Boiler and Pressure Vessel Inspectors, and shall place on inspection reports the serial number of their National Board of Boiler and Pressure Vessel Inspectors' Commission or Minnesota state certificate of competency. A Minnesota state certificate of competency is issued

by the Boiler Inspection Division according to Minnesota Statutes, section 183.38, subdivision 2.

Subp. 2. **Examination.** State or insurance company boiler inspectors seeking a license as authorized shop inspectors on new construction of boilers and/or pressure vessels shall qualify by passing a written examination prepared by the National Board of Boiler and Pressure Vessel Inspectors. The examinations will be held at Saint Paul, Minnesota, by the Boiler Inspection Division at times the commissioner may prescribe. Applicants qualifying shall obtain a National Board of Boiler and Pressure Vessel Inspectors' commission from the National Board of Boiler and Pressure Vessel Inspectors. The serial number of the commission must be registered in the office of the chief boiler inspector. Inspectors having National Board of Boiler and Pressure Vessel Inspectors' commissions obtained in other states shall register the serial number of their commission with the commissioner and furnish a photocopy of their current National Board of Boiler and Pressure Vessel Inspectors' Commission to the Boiler Inspection Division.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.1300 OPERATORS OF RAILROAD LOCOMOTIVES.

Operators of railroad locomotives which are utilized for such stationary purpose as generating steam for power or heating are required to have the proper class of engineer licenses issued by the Division of Boiler Inspection.

Operators of railroad locomotives engaged in intrastate or interstate commerce and operators of boilers in private residences and dwellings of not more than four families are not required to possess engineers' licenses issued by the Division of Boiler Inspection.

Statutory Authority: *MS s 175.171*

5225.1350 PROPERTY DAMAGE OR PERSONAL INJURY REPORT.

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.1400 VIOLATIONS.

Failure of any licensee to comply with any of the foregoing regulations shall constitute grounds for suspending the offending engineer's license for from ten to 30 days, and for repeated or grave offenses an engineer's license may be revoked.

Statutory Authority: *MS s 175.171*

INSPECTIONS

5225.2000 [Repealed, 35 SR 1917]

5225.2100 STAMPS ON BOILER AND PRESSURE VESSELS.

Every boiler or pressure vessel, unless specifically exempted by Minnesota Statutes, section 183.56, for use in this state must conform in every detail to the boiler and pressure vessel laws of the state and rules adopted by the Department of Labor and Industry, and when correctly constructed the boiler or pressure vessel must be stamped with the respective American Society of Mechanical Engi-

neers code symbol, and the National Board symbol (NB) or Minnesota Special (MINN. SPC). Stamping must be witnessed by an inspector holding a National Board commission. Information as to construction stamp requirements shall be provided to contractors by the chief boiler inspector. The chief boiler inspector may, at the request of the manufacturer, designate any inspector possessing the qualifications required by part 5225.1200 to make the requested shop inspection, for which the manufacturer shall pay the required fee pursuant to part 5225.8600, plus travel expenses.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2200 ITEMS REQUIRING INSPECTION.

The authorized boiler inspector shall inspect all boilers or steam generators, fired or unfired pressure vessels, and appurtenances for their safe operation and condition, and all pressure piping connecting them to the appurtenances, and all piping up to the first stop valve, or the second valve when two are required in accordance with inspection requirements in Section 1 of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code and the National Board Inspection Code. They must be properly prepared for inspection and the inspector given at least 48 hours' notice before the time of the inspection.

Any pressure piping to the boiler, steam generator, or pressure vessel appurtenances such as water column, blowoff valve, feedwater regulator, superheater, economizer, or stop valves which are to be shipped connected to the boiler, steam generator, or pressure vessel as a unit, must be hydrostatically tested with the boiler, steam generator, or pressure vessel, and the hydrostatic test must be witnessed by an authorized inspector, and if recognized as being in conformance with accepted procedures by the inspector, so noted on the data sheet by the inspector.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2300 EXEMPTIONS.

Boilers and pressure vessels under the direct jurisdiction of the United States government, those insured which have a current state exemption certificate posted on or near them, those in private residences and dwellings of not more than four families, and railroad locomotives used in intrastate or interstate commerce, pressure vessels used for storage of air, gas, or liquid and gas, having an internal or external pressure of 15 pounds or less per square inch, irrespective of size, or five cubic foot capacity or less for pressures not exceeding 30 pounds per square inch, headers or enlargement of a pipe the cross-sectional area of which is not greater than four times the combined area of the inlets, shall be exempt from state inspection. Locomotives used for plant or industrial transportation, stationary power or heating shall be subject to inspection by the state.

Statutory Authority: *MS s 175.171; 183.56*

5225.2400 TITLE TRANSFER TO USED BOILERS OR VESSELS.

Before the transfer of the title to a used boiler or pressure vessel and its future use in another location, the owner shall cause it to be inspected by the stateor insurance company boiler inspector, and in computing the safe working pressure, the inspector shall use a safety factor of at least six on noncode boilers and pressure vessels having a butt strap joint and at least a factor of seven on a lap seam joint. The maximum allowable working pressure for objects covered under Minnesota Statutes, section 183.411 must not exceed the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code for determining working pressure.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2500 LOW WATER DEVICES.

Subpart 1. [Repealed, 13 SR 1917]

Subp. 2. [Repealed, 13 SR 1917]

Subp. 3. **Requirements.** The following must be equipped with a low water cutout that will shut off the fuel supply in case of a low water condition:

A. each automatically fired steam boiler; and

B. each automatically fired hot water heating boiler or other hot liquid boiler plants of two or more boilers with individual isolating valves connected to a common header with a total heat input exceeding 750,000 Btu per hour input.

Subp. 4. **Flow-sensing device required.** The following must have a flow-sensing device installed in the outlet piping instead of the low water fuel cutoff required in subpart 3 to automatically cut off the fuel supply when the circulating flow is interrupted:

A. a coil type boiler plant exceeding 750,000 Btu; and

B. a watertube boiler plant with heat input greater than 750,000 Btu per hour requiring forced circulation to prevent overheating of the coils or tubes.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2600 REPORTING REPAIRS AND ALTERATIONS.

Subpart 1. **Prior notice of repair or alteration.** The owner or person in charge of a boiler, steam generator, or pressure vessel shall notify the Boiler Inspection Division or if the object is insured, the owner or person in charge shall notify the insurer before each repair not of a routine nature and all alterations made to the pressure containing parts of a boiler or pressure vessel, and the authorized inspector will compute the safe working pressure of the repair or alteration.

Subp. 2. **Standard of repairs.** The National Board of Boiler and Pressure Vessel Inspectors' repair (R) stamp or applicable American Society of Mechanical Engineers Boiler and Pressure Vessel Code symbol stamp is required for welded repairs not of a routine nature to any boiler or pressure vessel subject to inspection as specified in Minnesota Statutes, sections 183.375 to 183.62.

All alterations must be in compliance with the latest edition of the National Board Inspection Code and the referencing sections of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code.

Repairs or alterations must be reported to the authorized inspection agency responsible for the inservice inspection of the boiler or pressure vessel by the repair firm as required by the National Board Inspection Code. Required certification of repairs and alterations must be made by an inspector holding a National Board of Boiler and Pressure Vessel Inspectors' commission, who is employed by an authorized inspection agency under contract with the firm doing the repairs. Authorized inspection agencies are:

A. a jurisdictional authorized inspection agency;

B. the Minnesota Department of Labor and Industry, Division of Boiler Inspection; and

C. an authorized inspection agency which insures the boiler or pressure vessel.

It is the responsibility of the organization making the repair or alteration to provide for inspection, documentation, and certification of the work, and to ensure acceptance of the work by an authorized inspection agency.

Completion of the National Board of Boiler and Pressure Vessel R-1 form is required for all repairs not of a routine nature and all alterations. It is the responsibility of the repair organization to prepare the form and submit it to the authorized inspector for acceptance. Distribution of the form must be as provided in the National Board Inspection Code with one copy of the completed form sent to the Minnesota Department of Labor and Industry, Boiler Inspection Division.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2610 OWNER REPAIR PROGRAM.

An owner with boilers exceeding 200,000 pounds per hour may perform repairs to their boiler systems, excluding high pressure piping under the authority of Minnesota Statutes, section 326.461, subject to written approval of their repair program from the Department of Labor and Industry.

The owner repair program must include: organization, design control, material control, control of work, inspection, welding, nondestructive testing, records, repair reporting, and provision for system test and inspection by an authorized national board inspector. Before acceptance of the repair program, the chief boiler inspector must review the program. The program shall not be approved until the chief boiler inspector is satisfied that the program elements listed in this part are complete and acceptable and the allowance for independent third-party inspection controls are adequate and acceptable.

The commissioner of the Department of Labor and Industry may withdraw program approval, with cause, upon the recommendation of the chief boiler inspector. The commissioner must provide the owner with written notification of the department's intent to withdraw program approval and the reasons for the action. The owner, upon receipt of the commissioner's notification, has 30 calendar days to implement the required corrective actions to the satisfaction of the chief boiler inspector. The acceptance or rejection of all corrective actions shall be by the chief boiler inspector and must be in writing.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.2700 REPAIRS BY INSPECTORS PROHIBITED; EXCEPTION.

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

Statutory Authority: *MS s 175.171*

5225.2800 [Repealed, 13 SR 1917]

5225.2900 SALES BY INSPECTORS PROHIBITED.

Boiler inspectors shall not sell, nor be interested in the sale directly or indirectly of articles or accessories used in the maintenance of boilers and steam machinery, to the owners of the boilers or pressure vessels which they inspect.

Statutory Authority: *MS s 175.171*

5225.3000 PROFESSIONAL CONDUCT OF INSPECTORS.

Boiler inspectors shall at all times extend courteous treatment to those whom they serve and to the public, and make special effort to avoid controversy by referring disputes to the office of the chief of the Division of Boiler Inspection. Inspectors shall not commence any legal proceedings relating to the enforcement of boiler, license, or inspection laws prior to submitting the matter to the chief of the Division of Boiler Inspection; nor shall they divulge to any person their

personal opinions of findings pertaining to their duties as inspectors or disclose to the public any matter of a private nature in the possession of the division.

Statutory Authority: *MS s 175.171*

5225.3100 INSURED COVERAGE REPORT.

Every insurance company insuring a boiler or pressure vessel must notify the Boiler Inspection Division inspector in writing within 30 days of the effective date of coverage (including binders). It must also mail a duplicate of the notification to the assured, who shall, until receipt of exemption certificate, display the notice in a conspicuous place near the boiler or pressure vessel. The person, firm, or corporation operating the insured boiler or pressure vessel shall procure and display an exemption certificate within a period of 60 days from the date of coverage, and keep it displayed in a conspicuous place near the boiler or pressure vessel. If the certificate is not displayed within 60 days from date of coverage the boiler inspector shall make the usual and customary inspection of the boiler or pressure vessel and charge the statutory fee.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.3200 APPEALS.

Any person aggrieved by any action or decision of a boiler inspector may request a reconsideration by the commissioner, in the manner provided for a conference under part 5225.0880, subpart 3, who may affirm, modify, or rescind the action or decision. The parties affected by an action or decision of the commissioner may request a hearing at the Office of Administrative Hearings under Minnesota Statutes, sections 14.57 to 14.70.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.3300 GROUNDS FOR SUSPENSION OR DISMISSAL.

The failure of any inspector to comply with any of the foregoing rules may constitute sufficient grounds for the temporary suspension of such inspector; repeated neglect to comply with same shall be sufficient grounds for dismissal from the service.

Statutory Authority: *MS s 175.171*

5225.3400 STANDARDS FOR BOILERS.

Subpart 1. **Blowdown.** The blowdown from a boiler or boilers that may enter a sanitary sewer system or blowdown which is a hazard to human life or property must pass through some form of blowoff equipment that will reduce pressure and temperature. The temperature of the water leaving the blowoff equipment must not exceed 180 degrees Fahrenheit or a pressure of five pounds per square inch gage. This part does not apply to boiler blowoff tanks which are connected to boilers that operate at 400 pounds per square inch or over.

Subp. 2. **Blowoff tank.** A boiler blowoff tank must be designed and correctly fabricated in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section VIII, Division 1 for at least 25 percent of the safe working pressure of the boilers to which it is connected, but in no case need a tank be constructed for a working pressure more than 100 pounds per square inch. The blowoff tank must be of a volume equal to at least twice the volume of water removed from the boiler when the normal water level is reduced not less than four inches.

Subp. 3. **Water outlet.** The water outlet connection must be connected to the tank so that the tank will remain half full of water after each blowdown, and this vertical leg must extend to within six inches of the bottom of the tank and the

top of this water seal must also have a three-fourths inch opening to act as a syphon breaker.

Subp. 4. **Size opening.** The size opening of the blowoff line inlet, water outlet, and vent must have an area ratio of at least 1:1:5 to the nearest pipe size. Table 1 in part 5225.3500 gives ratio of openings.

Subp. 5. **Inlet.** The inlet must enter the shell at a tangent and must be above the surface of the water in the tank. A wearing plate of steel of the same thickness as the shell must be attached to the inside of the shell opposite the inlet opening.

Subp. 6. **Vent pipe.** The vent pipe must be connected to the uppermost part of the tank and carried without any intervening stop valve or other obstruction as direct as possible to the outside atmosphere. It must discharge at a point of safety not less than seven feet above adjacent areas or walkways.

Subp. 7. **Access opening.** The tank must have a suitable access opening, a manhole if possible; if not possible, then handholes, for inspection and cleaning of the interior. All pipe connections must be made as direct as possible and must be equipped, where possible, with sweep bends having a radius of at least four times the diameter of the pipe. Where conditions make the use of sweep bends prohibitive, long sweep fittings may be used. If couplings are welded in the openings they must be extra heavy.

Subp. 8. **Drain.** The tank must be fitted with a drain connection which is at least 2-1/2 inch standard pipe size and with a cold water supply which is at least three-fourths inch pipe size. The drain line must contain fittings to facilitate cleaning.

Subp. 9. **Clearance from floor or ground.** The tank must be provided with supporting legs which shall give a distance of at least 12 inches from the bottom of the tank to the floor. Blowoff tanks placed under ground shall be installed in a properly walled pit having space of not less than 18 inches between the tank and the wall.

Subp. 10. **Pressure gage.** The tank must be fitted with a pressure gage graduated from 0 to 30 pounds, the minor graduations indicating a pressure not greater than one pound. The pressure gage must be connected to a siphon, the opening of which shall be at least one-fourth inch inside diameter.

Subp. 11. **Water gage glass.** The tank must be fitted with a water gage glass of at least one-half inch diameter. The lower connection to the glass shall be made at a point about four inches below the water line and the upper connection about six inches above the water line.

Subp. 12. **Thermometer well.** The tank must be fitted with an opening for a thermometer well, located close to the water outlet connection and in contact with the water in the tank. If the outlet is not fitted with a water cooling device, the retained water must be reduced to at least room temperature before blowing down a boiler.

Subp. 13. **Permissible types of tanks.** Blowdown centrifugal separator, closed, and other types of blowoff tanks are permissible when approved by the chief boiler inspector.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.3500 TABLE NO. 1.

Boiler Blowoff Inlet	Water Outlet	Vent
* 3/4	3/4	2
1	1	2-1/2
1-1/4	1-1/4	3
1-1/2	1-1/2	4

2	2	5
2-1/2	2-1/2	6

To be used only with boilers of 100 square feet of heating surface or less.

Statutory Authority: *MS s 175.171; 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

BOILER SAFETY

5225.4000 BLOWOFF TANKS.

Sizes of blowoff tanks are given in the following table:

Up to three boiler horsepower pipes not to exceed 18 inches in diameter may be used, provided the volume of the water seal is at least equal to one gauge of water of the boiler to which it is connected and vapor space is at least 50 percent of the volume and boiler pressure is not over 100 pounds per square inch.

Boiler Rating	Tank Size
3 to 10 H.P.	24" x 36"
11 to 25 H.P.	24" x 48"
26 to 50 H.P.	30" x 36"
51 to 75 H.P.	30" x 48"
76 to 150 H.P.	36" x 54"
151 to 250 H.P.	36" x 60"
251 to 600 H.P.	42" x 66"
Over 600 H.P.	48" x 72"

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4100 SAFETY VALVES.

Every high pressure or low pressure boiler must have at least one safety valve. A high pressure boiler of more than 500 square feet of water heating surface must have two or more safety valves. Safety valves must meet American Society of Mechanical Engineers Boiler and Pressure Vessel Code requirements and be so stamped.

Every safety valve must be connected to the boiler independent of any other connections, and attached as close as possible to the boiler, without any unnecessary pipe or fitting and must stand in an upright position. No valve of any description may be placed between the required safety valve or valves and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. All safety valves must discharge at a point of safety not less than seven feet from running boards, platforms, or adjacent areas. No reduction in pipe size is allowed in discharge piping from a safety valve.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4200 WATER GAGE.

When the boiler operating pressure exceeds 100 pounds per square inch, the watergage glass must be fitted with a gate or plug-valved drain to a safe discharge point.

The lowest visible part of the water gage glass must be at least two inches above the lowest permissible water level. If the lowest water gage shutoff valve is more than seven feet above the floor or platform from which it is operated, the operating mechanism must indicate by its position whether the valve is opened or closed.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4300 WATER COLUMN SHUTOFFS.

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

Apparatus which does not permit the escape of an appreciable amount of steam may be placed in the pipes connecting a water column or gage glass to a boiler.

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4400 STEAM GAGE.

Each steam gage must be connected to a siphon of at least one-fourth inch pipe size and be fitted with a cock provided with a tee or lever handle arranged to be parallel to the pipe in which it is located when the cock is open. If the pipe is longer than ten feet, a shutoff valve or cock arranged so that it can be locked or sealed open may be used near the boiler.

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4500 VALVES AND FITTINGS.

Valves and pipe fittings must conform to the American National Standards Institute for the maximum allowable working pressure. Fusion welded joints are permitted if the welding procedure and operator are qualified.

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

All valves and fittings for feed-water piping between the required check valve and the globe or regulating valve, and including any bypass piping up to and including the shutoff valves in the bypass, must be equal at least to the saturated requirements of any standard accepted by the American Society of Mechanical Engineers Boiler and Pressure Vessel code. The pressure rating must be equal to the expected operating pressure required to feed the boiler for a saturated steam temperature corresponding to the minimum set pressure of any safety valve on the boiler drum or the actual temperature of the water, whichever is greater.

Valves and fittings made of any material permitted by the American Society of Mechanical Engineers Boiler and Pressure Vessel code for pressure ratings of 125 pounds or more and marked as required by the code may be used for feed line and blowoff service up to 80 percent of the rated pressure.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4600 STOP VALVES.

Each steam-discharge outlet, except safety valve, reheater inlet and outlet, or superheater inlet connections, must be fitted with a stop valve located at an accessible point in the steam-delivery line and as near to the boiler nozzle as convenient and practicable. When the outlets are over two inches pipe size, the valve or valves used on the connection must be the outside-screw-and-yoke rising-spindle type to indicate at a distance by the position of its spindle whether it is closed or open. A plug-cock-type valve may be used provided the plug is held in place by a guard or gland, and it is equipped to indicate at a distance whether it is closed or open and it is equipped with a slow-opening mechanism.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4700 COMMON MAIN CONNECTION.

When two or more boilers are connected to a common steam main, the steam connection from each boiler having a manhole opening must be fitted with two stop valves having an ample free-blow drain between them. The stop valves must consist preferably of one automatic nonreturn valve, set next to the boiler and a second valve of the outside-screw-and-yoke type; or as an alternative, two valves of the outside-screw-and-yoke type must be used.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4800 BLOWOFF PIPING.

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

All fittings between the boiler and valves must be of steel for pressure over 100 pounds per square inch. For pressures up to 200 pounds per square inch cast iron valves may be used if they meet the requirements of the American Standard for 250 pounds; and if of steel must be equal to the requirements of the American Standards as given in the American Society of Mechanical Engineers Boiler and Pressure Vessel code. For pressures over 200 pounds per square inch the valves or cocks must be of steel and at least equal to the American Society of Mechanical Engineers Boiler and Pressure Vessel code standard.

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.4900 BLOWOFF VALVES.

On all stationary boilers, when the allowable working pressure exceeds 100 pounds per square inch, each bottom blowoff pipe must have two slow-opening valves, or one slow-opening valve and a quick-opening valve or a cock complying with the American Society of Mechanical Engineers Boiler and Pressure Vessel code requirement.

The bottom blowoff pipes of every traction and/or portable boiler must have at least one slow-or-quick-opening blowoff valve or cock conforming to the American Society of Mechanical Engineers Boiler and Pressure Vessel code requirement.

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.5000 FEED PIPING.

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

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.5100 FEEDWATER SUPPLY.

A high pressure boiler having more than 500 square feet of water heating surface (50 BHP) must have at least two means of feeding. Each source of feeding must be capable of supplying water to the boiler at a pressure of three percent higher than the highest setting of any safety valve on the boiler. For boilers that are fired with solid fuel not in suspension, and for boilers whose setting or heat source can continue to supply sufficient heat to cause damage to the boiler if the feed supply is interrupted, one such means of feeding must not be susceptible to the same interruption as the other, and each must provide sufficient water to prevent damage to the boiler.

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

5225.5200 ELECTRICALLY HEATED GENERATORS.

All appliances required for electric steam generators shall be attached in accordance with the following:

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

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*

NAVIGATION OF POWER BOATS ON INLAND STATE WATERS

5225.6000 SCOPE.

Parts 5225.6000 to 5225.7200 shall be followed by vessels navigating the lakes and rivers of Minnesota.

Statutory Authority: *MS s 183.38; 183.41*

5225.6100 DEFINITIONS.

Subpart 1. **Approved life preserver.** An "approved life preserver" shall be either a vest-like article with straps and buckles attached thereto that will fit around the body directly below the arms so as to keep the upper part of the person above water or a cushion with at least two straps attached thereto. Both of these shall be made of kapok or cork and shall be designed to keep a dead weight of 20 pounds afloat for at least 24 hours. The materials used must comply with the United States Coast Guard specifications.

Subp. 2. **Boat.** "Boat" means any vessel navigating inland waters of the state, propelled by machinery, carrying passengers or cargo for hire and operated by a licensed pilot.

Subp. 3. **Under way.** A vessel is "under way" within the meaning of these rules when it is not at anchor, or made fast to the shore or ground.

Subp. 4. **Visible.** The word "visible" in these rules, when applied to lights, shall mean visible on a dark night with a clear atmosphere.

Statutory Authority: *MS s 183.38; 183.41*

5225.6200 LIGHTS.

The rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such time no other lights which may be mistaken for the prescribed lights shall be exhibited. If operated between sunset and sunrise, a vessel shall be equipped with a green light on the starboard side and a red light on the port side of the bow of the boat and shielded so they cannot be seen across the bow, and a white stern light visible from any angle within 360 degrees. Such boats shall have ready a lantern or flash light which shall be temporarily exhibited in sufficient time to avoid collision.

Statutory Authority: *MS s 183.38; 183.41*

5225.6300 COURSE AND SPEED.

When two vessels are crossing, so as to involve risk of collision, the vessel which has the other on its own starboard side shall keep out of the way of the other. When a machinery driven vessel and a sailing vessel or rowing boat are proceeding in such direction as to involve risk of collision, the power driven vessel shall keep out of the way of the sailing vessel or rowing boat. Where, by any of these rules, one of the two vessels is to keep out of the way, the other vessel shall keep its course and speed. Every vessel which is directed by these rules to keep out of the way of another vessel shall, if possible, avoid crossing ahead of the other. Every vessel which is directed by these rules to keep out of the way of another vessel shall, on approaching it, if necessary, slacken its speed or reverse or stop.

Power vessels, when under way, shall keep a safe distance from rowing or other small boats.

Statutory Authority: *MS s 183.38; 183.41*

5225.6400 NARROW CHANNELS.

In narrow channels every vessel shall, when it is safe and practical, keep to that side of the fairway or mid-channel which lies on the starboard side of such vessel. Sailing vessels or power boats shall keep out of the way of boats fishing with nets or lines. This rule shall not give to any vessel or boat the right of obstructing a fairway or channel used by vessels other than fishing vessels or boats.

Statutory Authority: *MS s 183.38; 183.41*

5225.6500 EQUIPMENT.

When in use, every vessel subject to these rules shall carry oars or pole, an

anchor, a fire extinguisher, and at least one approved life preserver for each passenger.

Statutory Authority: *MS s 183.38; 183.41*

5225.6600 APPROACHING DOCK.

All power boats must slow down at least 200 feet from dock or landing place. When about to land, the boat must head straight in, against the wind if possible, and if practicable avoid curving or circling into landing place.

Statutory Authority: *MS s 183.38; 183.41*

5225.6700 REPORTS OF DAMAGE.

Pilots of motor boats shall report in writing to the office of the chief of the Division of Boiler Inspection any accident causing damage in excess of $100. They shall also promptly report any other pilot who does not properly discharge the duties of a pilot and any person who flashes a light into the face of a pilot or otherwise commits an act that endangers the safety of a motor boat.

Statutory Authority: *MS s 183.38; 183.41*

5225.6800 TOWING ROW BOATS.

Every owner or lessee of a sailing or power vessel carrying passengers for hire which tows trailer rowboats shall see that the rowboats towed are provided with oars, even when they are equipped with outboard motors.

Statutory Authority: *MS s 183.38; 183.41*

5225.6900 ENGINE MUFFLERS.

Vessels propelled by an internal combustion engine shall at all times be so equipped as to completely and effectually "muffle" the sound of such engine by diverting its exhaust under water, or otherwise. Every vessel subject to these rules may be operated with mufflers or cutouts while actually competing in any race licensed to be held by the council or other governing body of the city, village, or town adjacent or nearest to that portion of the body of water on which such race is to be held.

Statutory Authority: *MS s 183.38; 183.41*

5225.7000 CONSTRUCTING RULES.

In obeying and constructing these rules due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from parts 5225.6000 to 5225.7200 necessary in order to avoid immediate danger.

Statutory Authority: *MS s 183.38; 183.41*

5225.7100 CONSEQUENCES OF NEGLECT.

Nothing in parts 5225.6000 to 5225.7200 shall exonerate any vessel, or the owner or pilot or crew thereof, from the consequences of any neglect to keep proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of good navigation, or by special circumstances of the case.

Statutory Authority: *MS s 183.38; 183.41*

5225.7200 PASSENGER CAPACITY.

The capacity of all steam and gasoline vessels not otherwise provided for shall be determined by the following rules, to wit: multiply the length (in feet), the breadth of the planking or plating, and the depth inside at the place of minimum depth. The product of these dimensions multiplied by .6, excluding fractional part of such product, shall be deemed the capacity of cubic feet. To determine the number of persons a boat is permitted to carry on the inland waters of this state, divide such product by eight and drop any resulting fraction.

Example: The carrying capacity of a boat 18 feet in length, 5-1/2 feet in breadth, and 2-1/4 feet in depth shall be determined as follows:

$$18 \times 5\text{-}1/2 \times 2\text{-}1/4 \times .6 = 134 = 16 \text{ persons}$$
$$8 \quad 8$$

Then estimate the weight of all equipment and machinery and divide by 150. To this quotient add one and subtract this sum from the number secured by the above formula.

Example: Weight of equipment and machinery, 450 lbs.

$$450 \div 150 = 3 + 1 = 4$$
$$16 - 4 = 12 \text{ passengers}$$

Statutory Authority: *MS s 183.38; 183.41*

5225.8600 FEES.

Subpart 1. **Generally.** Fees for inspections, examinations, and licenses under parts 5225.0100 to 5225.7200 are in subparts 2 to 7.

Subp. 2. **Engineer licenses.**

A. The fees for a new boiler operating engineer license, application, and examination are as follows:

(1) chief engineer, $50;
(2) first class engineer, $30;
(3) second class engineer, $25;
(4) special engineer, $20;
(5) hobby engineer, $50; and
(6) pilot, $30.

B. The fees for license renewal under part 5225.0300 are as follows:

(1) chief engineer, $25;
(2) first class engineer, $20;
(3) second class engineer, $15;
(4) special engineer, $10; and
(5) pilot, $10.

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

(1) chief engineer, $50;
(2) first class engineer, $30;
(3) second class engineer, $25;
(4) special engineer, $20; and
(5) pilot, $30.

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

Subp. 3. **Boiler and pressure vessel inspection.** The fees for the annual inspections of boilers and the biennial inspections of pressure vessels under Minnesota Statutes, section 183.545, subdivision 3, are as follows:

A. boiler inaccessible for internal inspection, $30;
B. boiler accessible for internal inspection, $45;
C. boiler internal inspection over 2,000 square feet, $60;
D. boiler internal inspection over 4,000 square feet, $75;
E. boiler internal inspection over 10,000 square feet, $100;
F. boiler requiring internal inspection up to one-half day, $170;
G. pressure vessel for internal inspection, $30; and
H. pressure vessel inaccessible for internal inspection, $20.

Subp. 4. **Shop inspections.** The fees for shop inspections under Minnesota Statutes, section 183.545, subdivision 3, are as follows:

A. inspection of two hours or less, $90; supervisor, $115;

B. one-half day, four hours or less, $170; supervisor, $220;

C. eight hours or less, $300; supervisor, $350; and

D. each hour over eight hours, per hour, $50; supervisor, $75.

Subp. 5. **Inspectors.** The fees for inspector's examinations, certificates, and endorsements under Minnesota Statutes, section 183.545, subdivisions 6, 7, and 8, are as follows:

A. national board inspector's exam, $75;

B. endorsement, $30;

C. Minnesota certificate of competency, original, $30; and

D. Minnesota certificate of competency, renewal, $20.

Subp. 6. **Exemption certificates.** The fee for an exemption certificate under Minnesota Statutes, section 183.57, subdivision 2, is $10 for each object inspected.

Subp. 7. **Vessel inspections.** The fees for vessel inspections under Minnesota Statutes, section 183.545, subdivision 1, are as follows:

A. boat under 30 feet, $50;

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

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

D. boat over 50 feet, $80.

Subp. 8. **Hobby boilers.** The inspection fee for hobby boilers or traction boilers, not previously certified in Minnesota is $75. The inspection fee for an inspection of a hobby or traction boiler is $45.

Statutory Authority: *MS s 16A.128; 183.44; 183.545; 326.46 to 326.50*

History: *10 SR 1379; 12 SR 1148*

5225.9000 TRACTION ENGINE ATTENDANCE REQUIREMENTS.

A traction engine (hobby boiler) may not be left unattended when in operation and members of the public are present. For purposes of this part, a traction engine may be considered as not being in operation when all of the following conditions exist:

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

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

C. the draft doors are closed;

D. the fire is banked or extinguished; and

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

Statutory Authority: *MS s 183.44 subd 2; 183.465; 183.466*

History: *13 SR 1917*