

CHAPTER 69A-51 BOILER SAFETY

PART I	GENERAL PROVISIONS
69A-51.001	Scope.
69A-51.005	Definitions.
69A-51.010	Codes Adopted.
69A-51.015	Administration.
69A-51.017	Other Provisions.
PART II	CERTIFICATES OF COMPETENCY AND CERTIFICATES OF COMPLIANCE
69A-51.020	Certificates of Competency.
69A-51.025	Certificate of Compliance.
69A-51.035	Examinations.
69A-51.040	Disciplinary Proceedings.
PART III	INSPECTIONS IN PUBLIC ASSEMBLY LOCATIONS
69A-51.045	Scope.
69A-51.050	Inspection Requirements.
PART IV	NEW AND EXISTING INSTALLATIONS IN PUBLIC ASSEMBLY LOCATIONS
69A-51.060	Requirements for New Installations.
69A-51.065	Requirements for Existing Installations.
69A-51.075	Repairs.
69A-51.080	Condemned Boilers.
69A-51.085	Accidents.

PART I GENERAL PROVISIONS

69A-51.001 Scope.

(1) The rules contained in this chapter shall establish provisions to safeguard life, limb, and property by specifying minimum standards for the construction, installation, operation, maintenance, inspection, and repair of boilers located in this state after October 1, 1987, and for the inspection of boilers in places of public assembly. There shall be a joint responsibility among the owner, the user, and the operating employees for compliance with this chapter.

(2) These rules do not presume to limit in any way the builder's right to choose any method of design or form of construction which conforms to the codes and standards adopted in these rules. The codes and standards adopted contain fundamental features of construction and leave a number of details to the judgment of designers and inspectors.

(3) Special designs which are not covered by the codes and standards may be determined by the manufacturer in cooperation with the purchaser, subject to the approval of the Authorized Shop Inspector and the Boiler Safety Program of the Department of Financial Services.

(4) These rules shall be enforced in conjunction with the codes adopted herein.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.104, 554.108, 554.1101 FS. History—New 2-27-89, Formerly 4A-51.001.

69A-51.005 Definitions.

As used in this rule chapter:

(1) "The Act" means Chapter 554, F.S., the "Boiler Safety Act."

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

(3) "ANSI" means the American National Standards Institute, 1430 Broadway, New York, NY 10018.

(4) "Antique Boiler" means any closed vessel used solely for display and demonstration purposes, in which water is heated, steam is superheated, or any combination thereof, under pressure or in a vacuum, for use externally to itself, by direct application of heat from the combustion of fuels, or from electricity. The term shall include fired vessels, used solely for display and demonstration purposes, for heating or vaporizing liquids other than water where these vessels are separate from processing systems and are complete within themselves.

(5) "Approved" means permitted by the Boiler Safety Program of the Department of Financial Services.

(6) "A.S.M.E. Code" means The American Society of Mechanical Engineers International Boiler and Pressure Vessel Code published by that Society, including addenda and interpretations existing at the time this rule is adopted.

(7) "Authorized Inspection Agency" means:

(a) A jurisdiction which has adopted and which administers one or more sections of the A.S.M.E. Boiler and Pressure Vessel Code as a legal requirement, one which shall be Section 1, and whose inspectors hold valid commissions issued by the National Board of Boiler and Pressure Vessel Inspectors, or in accordance with Section 554.112, F.S.; or

(b) An insurance company which has been licensed or registered by the appropriate authority of a state of the United States or a province of Canada to write and does write boiler and pressure vessel insurance, and to provide inspection service of boilers and pressure vessels in such state or province and whose inspectors hold valid commissions issued by the National Board of Boiler and Pressure Vessel Inspectors, or in accordance with Section 554.112, F.S.

(8) "Authorized Inspector" means the Chief Inspector, a Deputy Inspector or a Special Inspector.

(9) Definitions of Boilers (additional Boiler definitions may be found at Section 554.1021, F.S.):

(a) "Electric Boiler" means a power boiler or heating boiler in which the source of heat is electricity.

(b) "Miniature Boiler" means a power boiler or high-temperature boiler which does not exceed any of the following limits:

1. 16" inside diameter of shell;
2. 20 sq. ft. of heating surface (not applicable to electric boilers);
3. 5 cu. ft. gross volume, exclusive of casing and insulation; and
4. 100 psig maximum allowable working pressure.

(c) "Portable Boiler" means a boiler which is primarily intended for temporary location and the construction and usage permits it to be readily moved from one location to another.

(d) "Coil Type Hot Water Boiler" means a boiler without any steam space where water flashes into steam when released through a manually operated nozzle.

(e) "Lined Storage Water Heater" means a water heater which consists of a coil or closed tank heated either by direct flame, electrical heating elements or solar energy and which exceeds any of the following limits:

1. Maximum heat input of 400,000 BTUH or 117.2 KW;
2. Water temperature of 210 degrees F; and
3. Nominal water containing capacity of 120 U.S. gallons. Such water heaters shall be equipped with safety devices in accordance with the requirements of Section IV, Article 8, HLW-800, "Installation Requirements," A.S.M.E. Code, as adopted herein.

(f) "Standard Boiler" means a boiler which has been designed, constructed, inspected and stamped as per A.S.M.E. Code and registered with the National Board.

(g) "Non-standard Boiler" means a boiler that does not bear a stamp, or does not comply with the Act or these rules.

(h) "Reinstalled Boiler" means a boiler removed from its original setting and reinstalled at the same location or at a new location without change of ownership.

(i) "Condemned Boiler" means a boiler which has been inspected and declared unsafe by the Chief Boiler Inspector.

(10) "Commission" means:

(a) A written credential issued by the Boiler Safety Program to a Deputy Inspector or Special Inspector stating the inspection agency by whom he is employed and the category or categories of inspection he is authorized to make; or

(b) A written credential issued by the National Board of Boiler and Pressure Vessel Inspectors to the holder of a Certificate of Competency who desires to make shop inspections and field inspections in accordance with the National Board Code adopted herein.

(11) "Chief Inspector" means the Chief Boiler Inspector appointed by the Act.

(12) "Deputy Inspector" means any Deputy Inspector appointed by the Chief Inspector of the Boiler Safety Program of the Department of Financial Services.

(13) "Existing Installation" means any boiler installed in this state before October 1, 1987.

(14) "External Inspection" means an inspection made when a boiler is in operation, if possible or when examination of the interior surfaces of the pressure parts cannot be made.

(15) "Fusion Welding" means a process of welding metals in a molten and vaporous state, without the application of mechanical pressure or blows.

(16) "Horsepower" means a unit of measurement in which one boiler horsepower = 34.5 lbs. steam per hour or 33,479 BTUH (British Thermal Units per Hour).

(17) "Internal Inspection" means an inspection made when a boiler is shut down and the handholes, manholes, or other inspection openings are opened for inspection of the interior.

(18) "Jurisdiction" means a state, commonwealth or municipality of the United States or a Province of Canada, which has adopted one or more sections of the A.S.M.E. Boiler and Pressure Vessel Code, one of which is section I, and which maintains a duly constituted governmental unit for the purpose of enforcement of the code.

(19) "Major Repair" means a repair affecting the strength of the boiler.

(20) "National Board" means the National Board of Boiler and Pressure Vessel Inspectors (NB), 1055 Crupper Avenue, Columbus, Ohio 43229, whose membership is composed of Chief Inspectors of jurisdictions who, or other officials who hold a National Board Commission and are charged with the enforcement of the provisions of the Boiler and Pressure Vessel Safety Act.

(21) "National Board Inspection Code" means the code for jurisdictional authorities, inspectors, users, and organizations performing repairs and alterations to pressure-retaining parts. It is published by the National Board and is developed under procedures accredited as meeting the criteria for American National Standards.

(22) "New Boiler Installation" means all boilers constructed, installed and placed in operation after October 1, 1987.

(23) "Owner or User" means any person, firm or corporation legally responsible for the safe installation, operation, and maintenance of any boiler within this state.

(24) "Other locations open to the general public," as used in the definition of "public assembly locations" in Section 554.1021(2), F.S., means a building, facility, occupancy, or portion thereof, or an area open to the public for educational purposes or for trade or commerce including, but not limited to, public and private schools, universities, child care centers, city, county and state government buildings, commerce facilities, shopping malls, departmental stores, grocery stores, motels, hotels, resorts, vacation clubs, fitness centers, and restaurants; meeting rooms, game rooms, and similar places where the public is invited or permitted to gather, as well as boiler rooms, located in apartment complexes, condominiums, cooperatives, or similar multi-family dwellings; dry cleaners, laundries or laundromats; retirement homes; religious schools; bus or train stations; colleges and other institutions of higher learning; fraternal organizations; any club open to guests and the public; and any building or area in which persons may assemble for civic, educational, religious, recreational, entertainment or other purposes, or in which passengers may await public transportation. The term "public assembly locations" also means "places of public assembly" as used in this rule chapter.

(25) "Pressure retaining item" (PRI) means a boiler, pressure vessel, piping or material used for the containment of pressure, either internal or external. The pressure may be obtained from an external source, or by the application of heat from the direct source, or any combination thereof.

(26) "Pressure Vessel" means containers for the containment of pressure, either internal or external. This pressure may be obtained from an external source or by the application of heat from a direct or indirect source, or any combination thereof.

(27) "PSIG" means pounds per square inch gauge.

(28) "Repair" means the work necessary to restore a boiler or pressure vessel to a safe and satisfactory operating condition.

(29) "Repair Organizations" shall mean an entity which holds a valid National Board Certificate authorizing the use of the "R", "VR", or "NR" stamps.

(30) "Rules" means this rule chapter unless otherwise specified.

(31) "Rerating" means the increase of the maximum allowable working pressure or temperature of a boiler regardless of whether or not physical work is carried out on the boiler. Rerating shall be considered an alteration.

(32) "Special Inspector" means an inspector who holds a Florida Certificate of Competency and who is regularly employed by an insurance company authorized to insure against loss from explosion of boiler and pressure vessels in this state.

Specific Authority 554.103 FS. Law Implemented 554.1011-.115 FS. History--New 2-27-89, Amended 10-23-00, Formerly 4A-51.005.

69A-51.010 Codes Adopted.

The Department of Financial Services hereby adopts and incorporates by reference the following national codes as the State Boiler Code for the safe construction, installation, inspection, maintenance and repair of boilers.

(1) The A.S.M.E. Boiler and Pressure Vessel Code, Sections I; II, Parts A, B, C and D; IV; V; VI; VII; IX, and the ANSI/ASME CSD-1, 1998 edition and all 1999 amendments, addenda and interpretations thereto. Copies may be obtained from the American Society of Mechanical Engineers International, 22 Law Drive, Box 2300, Fairfield, New Jersey 07007-2300; Phone: 1 (800) THE-ASME. The Code may be consulted at the offices of the Boiler Safety Program, Bureau of Fire Prevention, Division of State Fire Marshal, Department of Financial Services, 325 John Knox Road, Third Floor, Atrium Building, Tallahassee, Florida 32303, Phone: (850) 413-3722/3723; during regular business hours, Monday through Friday.

(2) The National Board Inspection Code (NBIC) – 1998 edition and all 1999 amendments, addenda, and interpretations thereto. Copies may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229; Phone: (614) 888-8320. The Code may be consulted at the offices of the Boiler Safety Program, Bureau of Fire Prevention, Division of State Fire Marshal, Department of Financial Services, 325 John Knox Road, Third Floor, Atrium Building, Tallahassee, Florida 32303; Phone: (850) 413-3722/3723, during regular business hours, Monday through Friday.

(3) ASME B31.1, "Power Piping," – 1998 edition and all 1999 amendments, addenda, and interpretations thereto. Copies may be obtained from the American Society of Mechanical Engineers International, 22 Law Drive, Box 2300, Fairfield, New Jersey 07007-2300; Phone: 1 (800) THE-ASME.

Specific Authority 554.103 FS. Law Implemented 554.103 FS. History--New 2-27-89, Amended 10-23-00, Formerly 4A-51.010.

69A-51.015 Administration.

(1) Chief Inspector.

(a) The Chief Financial Office shall appoint a Chief Inspector who shall have not less than five (5) years experience in the construction, installation, inspection, operation, maintenance, or repair of high pressure boilers and pressure vessels and who holds a commission from the National Board of Boiler and Pressure Vessel Inspectors and a Certificate of Competency from the Department. Such Chief Inspector serves at the pleasure of the Chief Financial Officer.

(b) The Chief Inspector, authorized by the Department, is charged, directed and empowered:

1. To take action necessary for the enforcement of the State Boiler Safety Act and the rules adopted pursuant thereto.
2. To be responsible for the conduct of the Boiler Safety Program and the supervision of the Program's employees and shall report to the Chief, Bureau of Explosives and Fire Equipment, Division of State Fire Marshal, Department of Financial Services.
3. To keep a complete record of the type, dimensions, owner or user, maximum allowable working pressure, age, location, and the date of last recorded inspection of all boilers in places of public assembly in the State of Florida.
4. To publish and make available to anyone so requesting copies of the rules adopted by the Boiler Safety Program.
5. To issue, suspend, or revoke certificates of competency and certificates of compliance as provided for in these rules.
6. To conduct examinations for applicants for a Certificate of Competency or Florida Commission as an inspector of boilers.
7. To revoke commissions and commission credential cards for cause.
8. To issue, receive, approve and file manufacturer's data reports and inspection reports covering all boilers under the jurisdiction of the Boiler Safety Program.
9. To draft proposed amendments to this rule chapter.
10. To exercise general supervision over the inspectors and employees of the Boiler Safety Program.
11. To cause the prosecution of all violators of the provisions of Chapter 554, F.S., and this rule chapter.

(2) Deputy Inspectors. The Department shall employ Deputy Inspectors who shall be responsible to the Chief Inspector and who shall have at the time of appointment not less than three (3) years practical experience in the construction, maintenance, repair, inspection, installation or operation of high pressure boilers and pressure vessels as a mechanical engineer, steam engineer, boilermaker, or boiler inspector and who shall have passed the examination provided for in this rule chapter, and who shall hold a Certificate of Competency from the Department.

(3) Special Inspectors.

(a) Certificates of Competency designating Special Inspectors of Boiler and Pressure Vessels shall be issued by the Chief Inspector upon request of any Authorized Inspection Agency which has been licensed by the appropriate authority of this state. All such Authorized Inspection Agencies shall provide boiler and pressure vessel insurance coverage and be actively engaged in writing this type of coverage.

(b) Special Inspectors shall not receive any salary or expenses from the State. The Certificate of Competency issued to a Special Inspector shall be valid only so long as such Special Inspector is in the full-time employment of an authorized inspection agency.

(c) Upon termination of employment from an Authorized Inspection Agency, the Agency shall, in writing, notify the Chief Inspector of such termination within fifteen (15) days following the date of termination.

(d) Special Inspectors shall inspect all boilers covered by these rules that are located in places of public assembly and insured by their respective Authorized Inspection Agencies. All boilers, when so inspected, shall be exempt from payment to the state for inspection fees. Special Inspectors may conduct shop or field inspections of new boilers and pressure vessels in accordance with the applicable code requirements.

(4) Inspectors commissioned by the State of Florida shall not engage in the sale of an article or device relating to boilers or their appurtenances, or in any activity which would be in conflict with their official duties as an Authorized Inspector.

Specific Authority 554.103 FS. Law Implemented 554.105, 554.106, 554.107, 554.109, 554.114, 554.115 FS. History--New 2-27-89, Formerly 4A-51.015.

69A-51.017 Other Provisions.

(1) All installations after September 30, 1987 shall be designed, constructed, inspected and stamped in accordance with the A.S.M.E. Code, as adopted herein, and the latest addenda thereto in effect. In addition all boilers shall bear the National Board Stamping and the manufacturer's N.B. numbers as registered with the National Board of Boiler and Pressure Vessel Inspectors. A copy of the Manufacturer's Data Report signed by the manufacturer's representative and the National Board Commissioned Inspector employed by the Authorized Inspection Agency shall be submitted to the Chief Inspector of the Boiler Safety Program not more than 90 days following the inservice date of the boiler.

(2) Power Piping. Piping external to power boilers from the boiler to the first stop valve of a single boiler, and to the second stop valve in a battery of two or more boilers is subject to the requirements of section 1 of the A.S.M.E. Code, and the design, fabrication, installation and testing of the valves and piping shall be in accordance with ANSI B31.1.0, as adopted and incorporated by reference herein. Welded piping is subject to the A.S.M.E. Code requirements for proper code certification including stamping in conformance with the code and furnishing of applicable Manufacturer's Data Report forms to the owner and the Chief Inspector.

Specific Authority 554.103 FS. Law Implemented 554.103 FS. History--New 2-27-89, Formerly 4A-51.017.

PART II CERTIFICATES OF COMPETENCY AND CERTIFICATES OF COMPLIANCE

69A-51.020 Certificates of Competency.

(1) Certificates of Competency shall be issued to applicants for the position of Deputy Inspector who meet the requirements of Rule 69A-51.015, F.A.C., and who pass the examination described in Rule 69A-51.035, F.A.C., and who are employees of the Boiler Safety Program, Division of State Fire Marshal, Department of Financial Services.

(2) Certificates of Competency shall be issued to applicants as Special Inspectors who meet the requirements of Rule 69A-51.015, F.A.C., and who pay the fee described in Section 554.111, F.S., and who pass the examination described in Rule 69A-51.035, F.A.C., and who are full-time employees of Authorized Inspection Agencies.

(3) Applications for Certificates of Competency shall be made on the form entitled "Application for Certificate of Competency Special and Deputy Inspectors" prescribed by the Boiler Safety Program, Division of State Fire Marshal, which may be obtained from the Boiler Safety Program, Department of Financial Services, Larson Building, Tallahassee, Florida 32399-0300; (850) 413-3722. Application for Certificate of Competency Special and Deputy Inspectors, Form Number DI4-404, revised 9/89, is hereby adopted and incorporated by reference.

(4) The Certificate of Competency is valid for one year and shall expire on December 31 of each year.

(5) The Department shall mail each certificate holder or his employer an application for renewal on a form entitled "Renewal Application for Certificate of Competency," Form Number DI4-436, revised 10/95 which is hereby adopted and incorporated by reference. The application for renewal shall be properly completed, signed and forwarded to the Department with the appropriate fee, and the Department shall, upon receipt of the properly completed application and fee, renew the certificate.

(6) The certificate is valid only when the inspector is continuously employed either by the Boiler Safety Program or by a duly authorized inspection agency in the State of Florida. The certificate credential card will state the name of the inspector's employer.

(7) A certificate which is inoperative because of failure to renew shall be restored upon payment of the renewal fee, if the application for restoration is made to the Department within sixty (60) days after the renewal date.

(8) If a certificate becomes inoperative because of failure to renew and if the application for restoration is not made within the sixty (60) day period, then the fee for restoration shall be equal to the initial application fee (\$50.00) plus the renewal fee (\$30.00).

Specific Authority 554.103 FS. Law Implemented 554.103, 554.105, 554.106, 554.107, 554.111, 554.113 FS. History—New 2-27-89, Amended 7-15-98, Formerly 4A-51.020.

69A-51.025 Certificate of Compliance.

(1) Certificates of Compliance shall be issued only to boilers located in places of public assembly in this State.

(2) If, upon making the internal and/or external inspection, the inspector finds the boiler to be in safe working order, provided with the appurtenances necessary to safety, and properly set up, the Chief Inspector, upon receipt of an inspection report from the inspector and of the fee established in Section 554.111, F.S., shall issue to the owner or user thereof a Certificate of Compliance and, upon receipt of the Certificate, such owner or user may operate the boiler described in the Certificate until the date of expiration unless such certificate shall be sooner withdrawn or revoked.

(3) The Certificate of Compliance issued by the Department shall state the name of the owner or user; the location; the Florida State serial number; date of inspection; date of expiration of the certificate; the maximum pressure at which the boiler may operate; name of person who made the inspection; signature of the Chief Financial Officer; manufacturer; type of boiler; National Board number; and Authorized Inspection Agency doing the inspection.

(4) The Certificate of Compliance shall be conspicuously placed so it can be readily identified with the certificated boiler, preferably in the boiler room. The Certificate of Compliance for a portable boiler shall be kept on the premises and shall be accessible at all times.

(5) If an inspector at any inspection finds that the boiler is not in safe working condition, or is not provided with the appurtenances necessary to safety, or if the appurtenances are improperly arranged, he shall immediately notify the owner or user and person in charge of the boiler to shut down the boiler and shall report the same to the Chief Boiler Inspector who shall place or cause to be placed on the boiler an official State Seal to prevent further use of said boiler, and such seal shall remain in place until said boiler is restored to a condition to insure safety of operation. All such actions shall be in compliance with Chapter 120, F.S. The owner and/or user shall not operate the boiler or permit it to operate until a Certificate of Compliance has been issued or restored. Official State Boiler Seals may be attached or removed by Special Inspectors only after permission has been obtained from the Chief Boiler Inspector of the Boiler Safety Program.

(6) The Certificate of Compliance for a power boiler or a high pressure, high temperature water boiler is valid for a period of 12 months from the date of the certificate inspection.

(7) The Certificate of Compliance for a heating boiler or a hot water supply boiler is valid for a period of 24 months from the date of the certificate inspection.

(8) The Certificate of Compliance shall be posted under glass, or be similarly protected.

Specific Authority 554.103, 554.1101, 554.113 FS. Law Implemented 554.105, 554.106, 554.107, 554.108, 554.109, 554.1101, 554.113 FS. History—New 2-27-89, Formerly 4A-51.025.

69A-51.035 Examinations.

(1) Examinations for a certificate of competency as an inspector of boilers and pressure vessels shall be offered four times each year.

(2) Upon the expiration of ninety (90) days, an applicant who fails to pass the examination will be permitted to take another written examination, and his acceptance or rejection will be determined on the basis of this examination.

Specific Authority 624.307, 624.308(1) FS. Law Implemented 554.103, 554.111, 554.112 FS. History—New 2-27-89, Amended 1-27-99, 10-23-00, Formerly 4A-51.035.

69A-51.040 Disciplinary Proceedings.

(1) Grounds for disciplinary action. Disciplinary action may be instituted against a person who:

(a) Operates a boiler at a public assembly location without a valid certificate of compliance for that boiler;

(b) Gives false or forged information to the Department or to an inspector for the purpose of obtaining a certificate of compliance;

(c) Uses a certificate of compliance for any boiler other than for the boiler for which it was issued;

(d) Operates a boiler for which the certificate of compliance has been suspended, revoked or expired;

(e) Gives false or forged information to the Department for the purpose of obtaining a certificate of competency;

(f) Inspects any boiler regulated under the provisions of Sections 554.1011-.115, F.S., without having a valid certificate of competency;

(g) Obtains a certificate by willful falsification, fraud or misrepresentation;

(h) Operates a boiler which is in an unsafe condition;

(i) Operates a boiler in a manner contrary to the requirements of Chapter 554, F.S., or any rules or codes adopted pursuant thereto.

(2) Persons in violation of subsection (1), above, who do not have a certificate shall be reported by the Chief Inspector to the appropriate state attorney for the institution of criminal proceedings.

(3) Persons in violation of subsection (1), above, who have a certificate shall have administrative action instituted against them by the Chief Inspector in accordance with the provisions of Chapter 120, F.S.

(4) Certificates may be suspended or revoked by the Department. Revocations shall be forever. Suspensions shall continue in effect until all violations have been corrected and, for boiler safety violations, until the boiler has been inspected by an Authorized Inspector and shown to be in safe working condition.

Specific Authority 554.103 FS. Law Implemented 554.114, 554.115 FS. History—New 2-27-89, Formerly 4A-51.040.

PART III INSPECTIONS IN PUBLIC ASSEMBLY LOCATIONS

69A-51.045 Scope.

(1) The provisions of this Part shall apply to existing and new installations of boilers in public assembly locations.

(2) Existing installations are those boilers installed in public assembly locations before October 1, 1987.

(3) For existing installations:

(a) The maximum allowable working pressure of a boiler carrying the A.S.M.E. Code symbol stamp shall be determined by the applicable sections of the A.S.M.E. Code under which it was constructed and stamped.

(b) The maximum allowable working pressure of a boiler which does not carry the A.S.M.E. Code symbol shall be computed in accordance with the inspection code of the National Board of Boiler and Pressure Vessel Inspectors, as adopted and incorporated by reference herein.

(c) These rules shall not be construed to prevent the use, sale or reinstallation of a boiler in a public assembly location, provided it has been made to conform to the rules in this rule chapter governing existing installations and, provided further, that it has not been found upon inspection to be in an unsafe condition.

(4) New installations are those boilers installed in public assembly locations after September 30, 1987.

(5) For new installations, no boiler which does not conform to the rules in this rule chapter governing new construction and installation shall be installed and operated in public assembly locations in this state unless the boiler is of special design or construction, and is not inconsistent with the spirit and safety objectives of these rules in which case a permit for a state special must be applied for in writing by the Florida user. After specific approval, the issuance of a Florida State Special Number and a Certificate of Compliance may be granted at the discretion of the Chief Inspector of the Boiler Safety Program.

(6) No boiler shall be installed in a public assembly location in this state unless it has been constructed, inspected and stamped in conformity with the A.S.M.E. Code, except:

(a) Those exempted by the Act; or

(b) Boilers which are federally owned and federally inspected; or

(c) Coil type hot water boilers without any steam space where water flashes into steam when released through a manually operated nozzle unless one of the following limitations is exceeded:

1. A 3/4" inch diameter tubing or pipe size with no drum or headers attached; or

2. Nominal water containing capacity does not exceed six U.S. gallons; or

3. Water temperature does not exceed 350° F.; or

4. Steam is not generated within the coil; or

(d) Those potable water heaters exempted by Part HLW-101, "Service Restriction and Exception," Section IV of the A.S.M.E. Code; or

(e) Those approved as a Florida State Special.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.104, 554.105, 554.106, 554.107, 554.108, 554.109, 554.1101 FS. History--New 2-27-89, Formerly 4A-51.045.

69A-51.050 Inspection Requirements.

(1) Access for Inspection. The Chief Inspector, a Deputy Inspector, or a Special Inspector shall have full access during reasonable hours, to any place of public assembly in the State of Florida where a boiler is being constructed, installed or operated for the purpose of ascertaining whether such boiler is being constructed, installed, or operated in accordance with the requirements of this rule chapter. Immediate access shall be provided in the event of an accident.

(2) Inspection Requirements. Each boiler used or proposed to be used in a place of public assembly within this state except boilers exempt under subsection 69A-51.045(6), F.A.C., shall be thoroughly inspected as to its construction, installation and condition as follows:

(a) Power boilers and high pressure, high temperature water boilers shall receive a certificate inspection annually. They shall be inspected annually both internally, where construction permits, and externally while not under pressure. They shall also be inspected annually externally while under pressure, if possible, within six (6) months of the internal inspection.

(b) Heating boilers, except those constructed of cast iron, shall receive a certificate inspection biennially. This inspection may be an external inspection unless an internal inspection is required by the Authorized Inspector. The Authorized Inspector, due to operating conditions, may require additional inspections.

(c) Hot water boilers and hot water supply boilers, except those constructed of cast iron, shall receive a certificate inspection biennially with an internal inspection every four (4) years if the construction of the boiler so permits.

(d) Heating boilers and hot water supply boilers constructed of cast iron shall receive a certificate inspection biennially.

(e) A grace period of one (1) month beyond the periods specified in paragraphs (a)-(d), above, may elapse between certificate inspections; however, the inspection certificate due date shall not be affected.

(f) The Boiler Safety Program may, in its discretion, permit longer periods between certificate inspections.

(3) The Boiler Safety Program is responsible for providing for the safety of life, limb and property and therefore has jurisdiction over the interpretation and application of the inspection requirements as provided herein. Inspection during construction and installation shall certify as to the minimum requirements for safety as defined in the A.S.M.E. Boiler and Pressure Vessel Code or other construction standard acceptable to the Boiler Safety Program. Inspection frequency shall be in accordance with generally accepted practice and compatible with actual service conditions such as:

(a) Previous experience, based on records of inspection, performance and maintenance.

(b) Location with respect to personal hazard.

(c) Quality of inspection and operating personnel.

(d) Provisions for related safe operation control.

(e) Interrelation with other operations outside the scope of this rule chapter.

(4) Based upon documentation regarding actual service conditions, the Boiler Safety Program may, in its discretion, permit variations in the inspection requirements.

(5) The inspections herein required, including shop inspections, shall be made by the Chief Inspector, a Deputy Inspector, or a Special Inspector.

(6) If, at the discretion of the inspector, a hydrostatic test shall be deemed necessary, the test shall be performed and the expense shall be borne by the owner or user of the boiler and the test shall be witnessed by the inspector.

(7) All boilers to be installed in a place of public assembly in this state shall be inspected during construction as required by these rules by an inspector authorized to inspect boilers in this state or, if constructed outside of the State of Florida, by an inspector holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors.

(8) Inspection Reports. Each Authorized Inspection Agency employing certified Special Inspectors and each certified Deputy Inspector shall, within fifteen (15) days following each certificate inspection made by such inspectors, file a report of the inspection with the Chief Inspector of the Boiler Safety Program using the following forms, which are hereby adopted and incorporated by reference: Form DI4-380, 10/01/00, "Boiler or Pressure Vessel Data Report – First Internal Inspection" and Form DI4-379, 10/01/00, "Boiler – Fired Pressure Vessel – Report of Inspection". Authorized Inspection Agencies may reproduce these forms for their own use. Copies may be obtained from the Boiler Safety Program, Bureau of Fire Prevention, Division of State Fire Marshal, 200 East Gaines Street, Tallahassee, Florida 32399-0342.

(9) If, upon inspection, the Chief Inspector, Deputy Inspector, or Special Inspector finds that a boiler is unsafe for further operation and poses an imminent danger to the public health, safety and welfare, he may immediately order the boiler to be shut down. He shall promptly notify the owner or user stating what repairs or other corrective measures are needed. The boiler shall

remain shut down until a reinspection by an Authorized Inspector determines that all violations have been corrected, that the boiler is safe to operate, and that a Certificate of Compliance may be issued. Any such action shall be in compliance with Chapter 120, F.S.

(10) If an insured boiler with a Certificate of Compliance ceases to be insured, that Certificate shall be valid until the indicated expiration date.

(11) All Authorized Inspection Agencies shall notify the Chief Inspector of the Boiler Safety Program within thirty (30) days of all boiler installation risks written, cancelled, or not renewed in places of public assembly in this state.

(12) Inspection Exemptions.

(a) Any Authorized Inspection Agency licensed to sell boiler and pressure vessel insurance in this state and insuring a boiler in a place of public assembly located in the state shall inspect such boiler so insured.

(b) Such inspection shall be performed by a Special Inspector holding a Certificate of Competency from this state.

(c) Upon filing of a report of satisfactory inspection with the Department, such boiler is exempt from inspection by the Department.

(13) Inspection Numbers.

(a) Upon completion of installation and/or at the time of the first inspection, all boilers shall have attached, by the inspector making the inspection, a metal self-locking seal or non-corrosive tag which bears the Florida State serial number. The seals are to be attached in a conspicuous place where they cannot be easily removed, such as around the connecting water column pipes, steam gauge pigtail or siphon or around the piping connecting the boiler and its safety or relief valve.

(b) A block of Florida State serial numbers will be furnished, upon application, by the Chief Boiler Inspector to Authorized Inspection Agencies for use by Special Inspectors on boilers insured and inspected by their companies. The furnishing and installing of non-corrosive tags is the responsibility of the Authorized Inspection Agency. The approximate size of the non-corrosive tag shall be one inch by three inches (1" x 3").

(c) Boilers which are brought into the state for temporary use shall not be assigned Florida State serial numbers.

(d) It shall be the duty of every inspector, at the time of the certificate inspection, to determine if the boiler has attached the required metal self-locking seal or non-corrosive tag bearing the Florida State serial number.

(e) Florida State serial numbers 0001 through 49,999 shall be referred to as high pressure numbers and used for power boilers and high pressure high temperature water boilers. Florida State serial numbers 50,000 and above shall be referred to as low pressure numbers and used for low pressure steam, hot water and hot water supply boilers.

(f) Stamping of Florida State serial numbers on non-corrosive tags shall be as follows:

FL000000FL88

Florida State serial numbers shall be stamped with numbers and letters not less than 5/16 inch in height.

(14) Types of Authorized Inspection Agencies.

(a) Boiler Safety Program, Bureau of Explosives and Fire Equipment, Department of Financial Services, State of Florida.

(b) Any insurance company licensed to insure boilers and pressure vessels in the State of Florida.

(15) Registration Requirements. Any company insuring boilers and pressure vessels in this state which maintains a regularly established inspection department and employs qualified supervisors and Authorized Inspectors shall apply on its letterhead stating the inspection categories (either boilers or pressure vessels or both) for which registration is requested. The company's application letter shall include sufficient information on which a decision may be based including the make up of its supervisory staff and their qualifications to supervise the company's Authorized Inspectors.

(16) Existing Non-Standard Boilers.

(a) Non-standard boilers which were installed in the State of Florida prior to October 1, 1987, shall be subject to the provisions of the A.S.M.E. Boiler and Pressure Vessel Code, Section I, paragraphs A-33 and A-36. The factor of safety for boilers shall not be less than the following:

1. 5.0 for boilers 20 to 25 years old. The existing factor of safety may be continuous if subparagraph 2., below, has been complied with.

2. For each five years thereafter, the factor of safety of boilers shall be increased by not less than five-tenths; provided, however, that after a thorough internal and external inspection and a hydrostatic test to one and one-half (1 1/2) times the pressure allowed, during which no distress or leakage develops, the pressure allowed may be continued at its present factor of safety. The owner or user of such boiler shall prepare the boiler for hydrostatic pressure test by uncovering all riveted joints.

3. When boilers of the horizontal return tubular, flue, cylinder, or locomotive type having a longitudinal lap joint reach the age of thirty-five (35) years, the maximum allowable working pressure shall not be in excess of fifteen (15) pounds per square inch.

4. In no case shall the maximum allowable working pressure on a non-standard boiler be increased, unless it is being operated at a lesser pressure than would be allowed for A.S.M.E. Code Boilers.

5. Any non-standard boiler which has been or is now located in a place of public assembly within this state, and which shall be removed from and returned to the state, cannot be used in Florida for permanent service, but shall be subject to the rules in this rule chapter governing temporary boilers if it is to be operated in Florida.

(b) Non-standard boilers brought into the state for temporary use.

1. Any person, firm, or corporation desiring to bring a non-standard boiler into this state for temporary use at a place of public assembly shall make application to the Chief Inspector for permission to use such boiler, stating the location where the boiler is to be used, and the approximate length of time it is to be used, and shall comply with the requirements in the following subparagraphs;

2. It shall be unlawful to operate any temporary boiler in a place of public assembly within this state until an internal inspection has been made, a hydrostatic pressure test has been applied, a report has been submitted to the Chief Inspector, and a certificate of compliance has been issued.

3. This inspection shall consist of an internal and external inspection, together with a hydrostatic test of one and one-half (1 1/2) times the safe working pressure. The boiler shall be operated at a pressure not greater than that permitted by the inspector at the time of inspection and stipulated on the certificate of compliance.

4. The boiler may be inspected by the Chief Inspector or a Special Inspector or a Deputy Inspector. The inspection must be made at the time the boiler is first brought into Florida and before being put into service, provided an inspection of it has not been made and a hydrostatic test applied within the preceding thirty (30) days. In such cases, a copy of the inspection report together with the required certificate of inspection fee shall be forwarded to the Department within three (3) days and, if the condition of the boiler warrants, a certificate of compliance will be issued.

5. No certificate shall be issued for a longer period of time than six (6) months from the date of inspection. However, if the temporary work is not completed at the expiration of that time, the certificate may be extended for three (3) months, after another inspection (but not necessarily a hydrostatic test), and upon payment of an additional certificate fee, after which time the boiler must be taken out of service. In no case shall the boiler change ownership and remain in the state without permission from the Boiler Safety Program. The certificate must be available at all times at the location where the temporary boiler is operating.

6. When a temporary boiler is examined by the Chief Inspector or a Deputy Inspector the fee required by Section 554.111, F.S., shall be paid and forwarded to the Department.

7. Temporary boilers shall *not* be assigned a Florida State serial number.

(17) Additional Inspections.

(a) These rules are intended to provide reasonable and adequate requirements for the construction, maintenance, inspection, and use of boilers, and to provide for the inspection during fabrication, repair or alteration of those pressure vessels that are required by the owner and/or user to (a) meet ASME and NBIC requirements; and (b) be stamped as meeting those requirements.

(b) These rules are not designed to provide an inspection program for unfired pressure vessels, except as provided for by Chapter 554, F.S. However, inspections will be provided when requested by the owner or the user. The rules are intended to promote uniform standards for the design, fabrication, repair, alteration and inspection of steam and hot water boilers, and the inspection during fabrication, repair, or alteration of those pressure vessels that are required by the owner or user to (a) meet ASME and NBIC requirements; and (b) be stamped as meeting those requirements.

(18) Notice of Internal Inspection of Boilers. The owner or user of a boiler not exempted by Chapter 554, F.S., or by these rules shall be given fourteen (14) days notice of an impending internal inspection, by the responsible Inspector. No such notice shall be required for external inspections.

(19) Preparation for Internal Inspection.

(a) The owner or user shall prepare each boiler for internal inspection, and shall prepare for and apply a hydrostatic pressure test, whenever necessary, on the date arranged by the Inspector. The boiler shall be prepared for internal inspection as follows:

1. The fuel supply and ignition system shall be locked out.

2. The boiler, furnace and setting shall be sufficiently cooled to prevent damage to any part.

3. Water shall be drawn off and the water side thoroughly washed out.

4. The manhole and handhole plates, washout plugs, as well as inspection plugs in water column connections, shall be removed as required by the Inspector.

5. All grates of internally fired boilers shall be removed.

6. Insulation and brickwork shall be removed as required by the Inspector in order to determine the condition of the boiler, headers, furnace, supports, or other parts.

7. The pressure gauge shall be removed for testing when required by the Inspector.

8. Any leakage of steam or hot water into the boiler shall be prevented by disconnecting the pipe or valve at the most convenient point or any appropriate means approved by the Inspector.

9. Before opening the manhole(s) or handhole covers and entering any part of a boiler which is connected to a common header with other boilers, the required steam or water system stop valves shall be closed, tagged, and padlocked, and the drain valves or cocks between the two closed stop valves opened. The feed valves must be closed, tagged, and padlocked. Alternatively, lines may be blanked or sections of pipe removed. Blowoff lines, where practicable, shall be disconnected between pressure parts and valves. All drains and vent lines shall be open.

10. No owner or user shall permit entry into a boiler, nor shall an employee or Inspector enter a boiler, until the plant inspector or supervisor and the person entering the boiler have confirmed that all stop valves on inlet and outlet piping (not vented to the atmosphere) have been closed and tagged. Where not valved, the piping shall be disconnected or blanked. In addition, plant personnel shall make appropriate tests to assure that there is no oxygen deficiency or hazardous or toxic gasses in the drums to be entered by the Inspector.

(b) All automatic low water fuel cutoff and water feeding devices shall be examined to ensure that they are properly installed; and shall have the float chamber types or control devices disassembled and the float linkage and connections examined for wear. The float chamber shall be examined to ensure that it is free of sludge or other accumulation. Any necessary corrective action should be taken before the device is placed back in service.

(20) Boilers Improperly Prepared for Inspection. If a boiler has not been properly prepared for an internal inspection, or if an owner or user has failed to comply with the requirements for a pressure test as set forth in these rules, the Inspector may decline to make the inspection or test, and the certificate of compliance shall be withheld or suspended until the owner or user complies with the requirements.

(21) Removal of Covering to Permit Inspection. If a boiler is jacketed so that the longitudinal seams of shells, drums or domes cannot be seen, sufficient jacketing, setting wall, or other form of casing or housing shall be removed to permit reasonable inspection of the seams and other areas necessary to determine the condition and safety of the boiler, provided such information cannot be determined by other means.

(22) Inspection of Power Boilers. The internal and external inspection of power boilers shall meet the requirements of subsection C6 of the A.S.M.E. Code, Section VII, Recommended Rules for Care of Power Boilers; and the National Board Inspection Code, as adopted herein.

(23) Inspection of Heating, Supply and Potable Water Boilers. The internal (when required), and external inspections of steam and hot water heating, hot water supply, and potable water heaters (lined storage water heater), shall meet the guidelines of 7.09 and 8.09 of the A.S.M.E. Code, Section VI, Recommended Rules for Care and Operation of Heating Boilers; and the National Board Inspection Code, as adopted herein.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.108, 554.109, 554.1101 FS. History--New 2-27-89, Amended 10-23-00, Formerly 4A-51.050.

PART IV NEW AND EXISTING INSTALLATIONS IN PUBLIC ASSEMBLY LOCATIONS

69A-51.060 Requirements for New Installations.

The provisions of this part shall apply to new installations of power boilers, high pressure high temperature hot water boilers, low pressure heating and hot water supply boilers located in places of public assembly.

(1) Requirements for new installations:

(a) No boiler except those exempt by the provisions of Part III of these rules shall be installed in this state unless it has been constructed, inspected, stamped, and installed in conformity with the A.S.M.E. Boiler and Pressure Vessel Code as adopted herein, and registered with the National Board of Boiler and Pressure Vessel Inspectors and registered directly with the Boiler Safety Program by the Authorized Inspection Agency.

(b) A boiler constructed equivalent to the required standards or having a standard stamping of another state that has adopted a standard of construction equivalent to the standards of the State of Florida may be accepted by the Department, provided, however, that the person desiring to install the boiler shall request permission from the Chief Inspector prior to installation and shall supply the Chief Inspector with the Manufacturer's Data Report covering the construction of the boiler and with any other information reasonably calculated to permit the Chief Inspector to make an informed decision.

(2) Electrically heated boilers.

(a) All electrically heated boilers shall bear the applicable A.S.M.E. Code Stamp and the Underwriters Laboratory label. The boilers shall be supplied by the manufacturer as a complete unit and shall not be converted in the field.

(b) Electrically heated boilers shall be permanently grounded in accordance with NFPA 70-1984 edition, the National Electrical Code, as adopted in Rule 69A-3.012, F.A.C.

(c) A suitable screen or guard shall be provided around high tension bushings and a sign posted warning of high voltage. This screen or guard shall be so located that it will be impossible for anyone working around the boiler to accidentally come in contact with the high tension circuits.

(3) Power boilers.

(a) Ladders and runways. A steel runway or platform at least twenty-four inches (24") wide and provided with standard handrails and toe boards on either side and having at least 7' 6" head room shall be installed across the tops of adjacent boilers or at some other convenient level, for the purpose of affording safe access to the boilers. All runways shall have at least two (2) means of exit, each exit to be remotely located from the other and connected to a permanent stairway or inclined ladder leading to the floor level.

(b) Exit from the boiler rooms. All boiler rooms exceeding five hundred (500) square feet of floor area and containing one or more boilers having a fuel-burning capacity of 1,000,000 BTU's shall have at least two (2) means of exit. Each exit shall have at least two (2) means of egress, each remotely located from the other.

(c) Inspection space. All boilers shall be located so that adequate space shall be provided for the proper operation of the boiler and its appurtenances; for the inspection of all surfaces, drums, tubes, waterwalls, economizers, piping, valves, and other equipment; and for necessary maintenance and repair.

(d) Explosion doors. Explosion doors, if used and if located in the setting walls within seven (7) feet of the firing floor or operating platform, shall be provided with substantial deflectors to divert the blast.

(e) Clearance. When new power boilers are installed in new buildings, a minimum height of at least seven (7) feet shall be provided between the top of the boiler proper and the ceiling, except in the single installations of self-contained boilers where a minimum height of at least three (3) feet shall be provided between the highest point of any valve stem or fitting and the ceiling. It is recommended that these requirements be followed as nearly as possible when replacing boilers in existing buildings.

(f) Blow-off tanks.

1. Blow-off piping from a power boiler shall not discharge directly into a sewer. A blow-off tank shall be used where conditions do not provide adequate and safe open discharge.

2. Blow-off tanks installed after the effective date of this rule, if of metal, shall have a plate thickness of not less than 5/16" and shall be designed for a minimum working pressure of 50 psig. Blow-off tanks shall be built, stamped, and installed in accordance with the requirements of the National Board Inspection Code and the A.S.M.E. Boiler and Pressure Vessel Code, as adopted herein.

(g) The discharge of safety valves shall vent to the atmosphere and the outlets shall be located so as to prevent injury to personnel. Blow-off pipes and other outlets shall also be located so as to prevent injury to personnel.

(h) The stamping of the boiler and safety valves shall not be concealed by lagging or paint and shall be exposed at all times unless a suitable record is kept of the location of the boiler stamping so it may be readily uncovered at any time.

(i) Safety valves.

1. Each boiler shall have at least one A.S.M.E. certified safety valve, and if it has more than 500 sq. ft. of bare tube water heating surface, or an electric power input of more than 1100 KW, it shall have two or more safety valves of the same type.

2. The valve or valves shall be connected to the boiler, independent of any other steam connectors and attached as close as possible to the boiler without any intervening valves.

3. The safety valve capacity of each boiler shall be such that the safety valve or valves will discharge all of the steam that can be generated by the boiler without allowing the pressure to rise more than six (6) percent above the highest pressure to which the valve is set and in no case to more than six (6) percent above the maximum allowable working pressure.

4. The safety valve or safety relief valve capacity shall be in compliance with section I, Part PG, PG-70, "Capacity," of the A.S.M.E. Boiler and Pressure Vessel Code, as adopted herein, but shall not be less than the maximum designed steaming capacity as determined by the manufacturer.

5. No boiler shall be operated without an A.S.M.E. Certified Safety Valve installed, nor have the safety valves act at a pressure in excess of the safe working pressure stated on the Certificate of Compliance.

6. Repairs to safety and safety relief valves shall be conducted only by the manufacturer or by holders of the National Board "VR" Certificate of Authorization.

7. The use of weighted-lever safety valves or safety valves having either the seat or disk of cast iron are prohibited; valves of this type of construction shall be replaced by direct, spring-loaded, pop-type valves that conform to the requirements of the A.S.M.E. Code, Section I, as adopted herein.

(j) Boiler feeding.

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

2. Boiler feed to all boilers shall conform to the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and to the National Board Inspection Code, as adopted herein.

(k) Water level indicators.

1. Each boiler, except forced flow steam generators with no fixed steam and waterline, and except high temperature water boilers of the forced circulation type that have no steam and waterline, shall have at least one water gauge glass.

2. Water level indicators shall conform to the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and to the National Board Inspection Code, as adopted herein.

(l) Steam gauges.

1. Each steam boiler shall have a steam gauge with a dial range not less than 1 1/2 times the maximum allowable working pressure, connected to the steam space or to the steam connection to the water column. The steam gauge shall be connected to a siphon or to an equivalent device of sufficient capacity to develop and maintain a water seal which will prevent steam from entering the gauge tube.

2. Steam gauges to steam boilers shall conform to the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and to the National Board Inspection Code, as adopted herein.

(m) Pressure reducing valves.

1. Where pressure reducing valves are used, one or more safety relief valves shall be provided on the low pressure side of the reducing valve when the piping or equipment on the low pressure side does not meet the requirements for the full initial pressure. The safety or safety relief valves shall be located adjoining or as close as possible to the reducing valve. Proper protection shall be provided to prevent injury or damage caused by escaping fluid from the discharge of the safety relief valves if vented to the atmosphere. The combined discharge capacity of the safety or safety relief valves shall be such that the pressure rating shall not be exceeded in case the reducing valve fails in the open position.

2. The use of hand controlled bypasses around the reducing valves is permissible. If a bypass is used around a reducing valve, the safety valve required on the low pressure side shall be of sufficient capacity to relieve all the fluid that can pass through the bypass without overpressuring the low pressure side.

3. A pressure gauge shall be installed on the low pressure side of the reducing valve.

(n) Supports. Each boiler shall be supported by masonry or structural supports of sufficient strength and rigidity to safely support the boiler and its contents. There shall be no excessive vibration in either the boiler or its connecting piping.

(o) Air and ventilation requirements – Combustion air supply and ventilation of boiler room.

1. A permanent source of outside air shall be provided for each boiler room to permit satisfactory combustion of the fuel as well as proper ventilation of the boiler room under normal operating conditions.

2. To determine the total requirements of the burners for all fired pressure vessels and fired equipment in the boiler room, the formula following the table below shall be used to find the square foot area of a louvered air inlet, where fired by combustible fuels. The minimum net free louvered area shall in no event be less than one square foot. The table below is based on the formula and either the table or the formula shall be used to determine the net louvered area required, expressed in square feet:

INPUT BTU/HOUR	REQUIRED AIR CU. FT./MIN.	MIN. NET LOUVERED AREA SQ. FT.
500,000	125	1.0
1,000,000	250	1.0
2,000,000	500	1.6
3,000,000	750	2.5
4,000,000	1000	3.3
5,000,000	1250	4.1
6,000,000	1500	5.0
7,000,000	1750	5.8
8,000,000	2000	6.6
9,000,000	2250	7.5
10,000,000	2500	8.3

Formula:

$$\frac{\text{BTU/HR}}{10,000} \times 2.5 = \frac{\text{AIR, CFM}}{300} = \text{Min. Net Area Sq. Ft.}$$

or

$$\frac{\text{BTU/HR}}{10,000} \times 2.5 = \frac{\text{REQUIRED AIR}}{300} = \text{Min. Net Area Sq. Ft.}$$

3. When mechanical ventilation is used in lieu of 2., above, the supply of combustion and ventilation air to the boiler room and the firing device shall be interlocked with the fan so the firing device will not operate with the fan off. The velocity of the air through the ventilating fan shall not exceed 500 feet per minute and the total air delivered shall be equal to or greater than shown in subparagraph 2., above.

(4) Heating and hot water supply boilers. All new steam heating, hot water heating, and hot water supply boilers shall be installed in accordance with the requirements of these rules.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.104, 554.105, 554.106, 554.107 FS. History--New 2-27-89, Amended 10-23-00, Formerly 4A-51.060.

69A-51.065 Requirements for Existing Installations.

(1) Standard boilers. The maximum allowable working pressure shall in no case exceed the pressure indicated by the manufacturer, either stamped or cast on the boiler or on a plate secured to it.

(2) Non-standard riveted boilers. The maximum allowable working pressure on the shell of a non-standard riveted heating boiler shall be determined in accordance with the National Board Inspection Code as adopted and incorporated herein, except that:

(a) In no case shall the maximum allowable working pressure of a steam heating boiler exceed 15 psig; and

(b) In no case shall the maximum allowable working pressure of a hot water heating boiler exceed 160 psig nor shall the temperature exceed 250° F.

(3) Non-standard welded boilers. The maximum allowable working pressure of non-standard steel or wrought iron heating boilers of welded construction shall not exceed 15 psig for steam. For other than steam service, the maximum allowable working pressure shall be calculated in accordance with section IV of the A.S.M.E. Boiler and Pressure Vessel Code, as adopted herein.

(4) Non-standard cast iron boilers. The maximum allowable working pressure of a non-standard boiler composed principally of cast iron shall not exceed 15 psig for steam service or 30 psig for hot water service. The maximum allowable working pressure of a non-standard boiler having a cast iron shell or heads and steel or wrought iron tubes shall not exceed 15 psig for steam service or 30 psig for hot water service.

(5) Parts and appurtenances. All parts and appurtenances attached to low pressure heating and hot water supply boilers that come under these rules shall conform to the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and the National Board Inspection Code and shall include safety valves, safety relief valves, steam gauges, pressure or altitude gauges, water gauge glasses, stop and check valves, feed water connections and return pump.

(6) Automatic low water fuel cutoff and/or water feeding device.

(a) Each automatically fired steam boiler shall have an automatic low water fuel cutoff so located as to automatically cut off the fuel supply when the surface of the water falls to the lowest visible part of the water gauge glass. If a water feeding device is installed, it shall be so constructed that the water inlet valve cannot feed water into the boiler through the float chamber and so located as to supply requisite feedwater. Such a fuel cutoff or water feeding device shall comply with section IV, Part HG; Article 6, HG-606, "Automatic Low-Water Fuel Cutoff and/or Water Feeding Device," of the A.S.M.E. Code adopted herein.

(b) Each automatically fired hot water heating boiler with heat input greater than 400,000 BTU/HR shall have an automatic low water fuel cutoff which has been designed for hot water service, and it shall be located so as to automatically cut off the fuel supply when the surface of the water falls to the lowest safe water level established by the boiler manufacturer. Such low water fuel cutoff shall comply with section IV, Part HG, Article 6, HG-614, "Low-Water Fuel Cutoff," of the A.S.M.E. Code, as adopted herein.

(7) Repairs and renewals of fittings and appliances. Whenever repairs are made to fittings or appliances, or it becomes necessary to replace them, the repairs must comply with section IV of the A.S.M.E. Boiler and Pressure Vessel Code for new construction.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.104, 554.105, 554.106, 554.107 FS. History—New 2-27-89, Formerly 4A-51.065.

69A-51.075 Repairs.

(1) Repairs to all boilers and appurtenances thereof that come under these rules shall conform to the National Board Inspection Code and this rule chapter. Where a repair affecting the safety of the boiler is necessary, the owner and/or user shall call a Florida Commissioned Inspector for consultation and advice as to the best method of making the repair, and the completed work shall be subject to his approval.

(2) No company shall undertake a repair to a boiler unless the contemplated repairs have first been approved by a Florida Commissioned Inspector.

(3) Should a repair outside the scope of these rules be deemed feasible by a Florida Commissioned Inspector, such a repair may be undertaken only with the full knowledge and consent of the Chief Boiler Inspector, Boiler Safety Program.

(4) These rules are intended to apply to repairs or alterations to boilers which come under these rules. The repairs made in accordance with these rules shall result in a boiler as safe as when it was originally constructed.

(5) Upon completion of repairs of an unsafe condition, the Authorized Inspection Agency responsible for the issuance of the withheld Certificate of Compliance shall submit a reinspection report to the Department. The reinspection report shall include pertinent data pertaining to the required repairs including a copy of the "Report of Welded Repair" in the National Board Inspection Code, if applicable.

(6) Lap Seam Crack. The shell or drum of a boiler in which a lap seam crack is discovered along a longitudinal riveted joint shall be immediately removed from service. If the boiler is not more than 15 years old, a complete new course of the original thickness may be installed at the discretion of the inspector (with the approval of the Chief Inspector). Patching is prohibited.

(7) Hydrostatic Pressure Test.

(a) A hydrostatic pressure test, when applied to boilers of riveted or welded construction, shall not exceed one and one-half (1 1/2) times the maximum allowable working pressure. Hydrostatic pressure applied to glass lined vessels shall not exceed the maximum allowable working pressure. During the hydrostatic pressure test, the safety valve or valves shall be removed or each valve disk shall be held down by means of a testing clamp and not by applying additional load to the spring with the compression screw. The minimum temperature of the water used to apply a hydrostatic test shall be not less than 70° F., and the maximum temperature shall not exceed 120° F.

(b) When a hydrostatic test is to be applied to existing installations, the pressure shall be as follows:

1. For all cases involving the question of tightness, the pressure shall be equal to the release or set pressure of the safety valve or valves having the lowest release setting.

2. For all cases involving the question of safety, the pressure shall be equal to one and one-half (1 1/2) times, the maximum allowable working pressure.

(8) Riveted Patches. In applying riveted patches, the design of the patch and the method of installation shall be in accordance with the rules for riveted patches as required by the National Board Inspection Code.

(9) Repairs by Fusion Welding.

(a) When repairs are to be made involving the use of welding, permission to proceed with the work must be obtained from a Florida Commissioned Inspector. All repairs by welding shall be completed in accordance with the rules for repairs for fusion welding to boilers and pressure vessels in the National Board Inspection Code.

(b) Repair Organization.

1. A holder of a valid National Board Certificate of Authorization, authorizing the use of the "R" stamp, or,
2. The holder of a valid A.S.M.E. Certificate of Authorization for use of the appropriate code symbol stamp, or,
3. One which is authorized by the Boiler Safety Program.

(c) Inspection and Hydrostatic test.

(10) No repairs by welding shall be made without the approval of a Florida Commissioned Inspector who shall, if he considers it necessary, make an inspection of the boiler to be repaired before granting approval of the contemplated repairs. If in the opinion of the Florida Commissioned Inspector a hydrostatic test is necessary, such a test shall be applied after the repairs have been completed.

Specific Authority 554.103 FS. Law Implemented 554.103 FS. History--New 2-27-89, Formerly 4A-51.075.

69A-51.080 Condemned Boilers.

(1) Any boiler which comes under these rules, having been inspected and declared unsafe by an inspector shall, after approval by the Chief Inspector, be stamped by the inspector with an arrow head stamp having an overall length of 1/2" and width of 3/8" on either side of the letter "XXX" and the letters of the state as shown by the following facsimile, which will designate a condemned boiler. In addition, the word CONDEMNED shall be stamped under the condemned facsimile.

XXX FL XXX
Condemned

(2) Any person, firm, partnership or corporation using or offering for sale a condemned boiler which comes under these rules for operation in a place of public assembly within the state shall be subject to the penalty provided in Section 775.083, F.S.

Specific Authority 554.103 FS. Law Implemented 554.103, 554.114 FS. History--New 2-27-89, Formerly 4A-51.080.

69A-51.085 Accidents.

When an accident occurs to a boiler located in a place of public assembly, the responsible Florida Commissioned Inspector, as well as the owner or user, shall promptly notify the Chief Inspector by submitting a detailed report of the accident. In the event of personal injury or any explosion, notice shall be given immediately by telephone, telegraph or messenger, and neither the boiler, nor any parts thereof, shall be removed or disturbed before permission has been given by the Chief Inspector, except for the purpose of saving human life and limiting consequential damage.

Specific Authority 554.103 FS. Law Implemented 554.1021, 554.103, 554.104, 554.108, 554.109, 554.1011, 554.111, 554.114, 554.115 FS. History--New 2-27-89, Formerly 4A-51.085.