Title 20. Public Health and Welfare

Chapter XXX. Generally, Department of Labor and Licensing

Subchapter A. Generally

Part 880. Boiler Inspection Section Rules

Subpart 1. Generally

20 CAR § 880-101. Information for public guidance.

(a) The mailing address and telephone number for the Boiler Inspection Section is:

Boiler Inspection Section
Department of Labor and Licensing
900 West Capitol Ave, Suite 400
Little Rock, AR 72201
(501) 682-4500
Email: adll.boiler@arkansas.gov

(b)(1) The Department of Labor and Licensing makes available a list of persons holding certain responsibilities for handling Freedom of Information Act of 1967, Arkansas Code § 25-19-101 et seq., requests, licensing questions, complaints against licensees, and compliance requests or assistance so that the public may obtain information about the Boiler Inspection Section or make submissions or requests.

(2) The names, mailing addresses, telephone numbers, and electronic addresses can be obtained from the Boiler Inspection Section's office or website.

(3) The Department of Labor and Licensing's website is: http://www.labor.arkansas.gov/.

(4) The Boiler Inspection Section's website is: http://www.labor.arkansas.gov/labor/code-enforcement/boiler-inspection-licensing-and-permits/.

(c) The Boiler Inspection Section has a list of official forms used by the Boiler Inspection Section and a list of all formal, written statements of policy and written

interpretative memoranda, and orders, decisions, and opinions resulting from adjudications, which may be obtained from the Boiler Inspection Section's office or website.

(d) Copies of all forms used by the Boiler Inspection Section, written statements of policy and written interpretive memoranda, and all orders issued by the Boiler Inspection Section may be obtained from the Boiler Inspection Section's office.

20 CAR § 880-102. General definitions.

As used in this part, unless the context otherwise requires:

(1)(A) "ASME Boiler and Pressure Vessel Construction Code" means the title of the accepted reference for construction, operation, and inspection of boilers and pressure vessels, compiled and written by the American Society of Mechanical Engineers.

(B) This code is the basis of this part;

(2) "Authorized inspector" or "inspector" means a deputy inspector duly appointed by the Chief Inspector of the Boiler Inspection Section, or an insurance inspector, or an authorized third-party inspector holding a National Board of Boiler and Pressure Vessel Inspectors commission and an Arkansas commission;

(3) "Boiler" means a closed vessel or container in which water is heated and/or steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum by the direct application of heat, and shall be classified as defined by the applicable sections of the ASME Boiler Construction Code as follows:

(A) Power Boilers, Section No. 1;

(B) Low-pressure heating boiler, boiler used exclusively for low-pressure steam heating, hot water heating, and hot water supply;

(C) Section No. 4; and

(D) Miniature boilers, as defined in Section I;

(4) "Boiler, automatically fired" means a boiler which cycles automatically in response to a control system;

(5) "Boiler, high-pressure, steam, or vapor" means a boiler in which steam or vapor is generated at a pressure exceeding fifteen pounds per square inch gauge (15 psig);

(6) "Boiler horsepower or HP" means the evaporation of thirty-four and one-half pounds (34.5 lbs.) of water per hour from and at a feedwater temperature of two hundred twelve degrees Fahrenheit (212° F);

(7) "Boiler, hot water heating" means a boiler in which no steam is generated and from which hot water is circulated for heating purposes, and then returned to the boiler;

(8) "Boiler, hot water supply" means a boiler that furnishes hot water to be used externally to itself at pressure not exceeding one hundred sixty pounds per square inch gauge (160 psig) or a temperature not exceeding two hundred fifty degrees Fahrenheit (250° F) (one hundred twenty degrees Celsius (120° C)) at or near the boiler outlet;

(9) "Boiler, low-pressure, steam or vapor" means a boiler in which steam or vapor is generated at a pressure not exceeding fifteen pounds per square inch gauge (15 psig);

(10) "Boiler, miniature" means a boiler that does not exceed any of the following limits:

(A) Sixteen-inch inside diameter of shell;

(B) Twenty square feet (20 ft^2) heating surface;

(C) Five cubic feet (5 ft^3) gross volume, exclusive of casing and insulation; and

(D) One hundred pounds per square inch gauge (100 psig) maximum allowable working pressure;

(11) "Boiler operator" means a person who has successfully completed the boiler operator's examination and been issued a boiler operator license from the Boiler Inspection Section;

(12) "Boiler room" means any building, enclosed room, or space within a building other than a residential dwelling, intended by design or by usage to contain a boiler which is connected and available for use;

(13) "Boiler room log" means a data sheet used to record pressures, temperatures, and other operating conditions of a boiler on a continuous basis;

(14) "Boiler shutdown" means a sequence of operations completed when taking a boiler off-line;

(15) "Boiler start up" means a sequence of operations completed when preparing a steam boiler for service;

(16) "British thermal unit or Btu" means a measurement of the quantity of heat necessary to heat one pound (1 lb.) of water to one degree Fahrenheit (1° F);

(17) "Chief Inspector" means the supervising inspector for the Boiler Inspection Section of the Department;

(18) "CSD-1" means the ASME Controls and Safety Devices standard, which sets minimum requirements for the installation, testing, testing frequency, and maintenance of safety controls on automatically fired boilers and gas-fired process equipment.

(19) "Department" means the Arkansas Department of Labor and Licensing;

(20) "Director" means the Director of Code Enforcement;

(21) "Existing installation" means any power boiler or miniature boiler which was in service on or before January 1, 1938, and any low-pressure heating boiler or unfired pressure vessel which was in service on or before June 10, 1959, and which was at that time recognized by the Department as an existing installation;

(22)(A) "National board" or "NBBI" means the National Board of Boiler and Pressure Vessel Inspectors.

(B) When a boiler or pressure vessel bears an ASME symbol stamp and is stamped "National Board" or "N.B.", it shall mean that the boiler or vessel is constructed to comply with the recognized standard of construction and has been inspected by an inspector holding a National Board of Boiler and Pressure Vessel Inspectors commission;

(23) "Owner" or "user" means any person, firm, partnership, or corporation, or other entity owning or operating, or in charge or in control of any boiler and/or any unfired pressure vessel;

(24) "Periodic attendance" means a licensed boiler operator who has inspected and recorded the boiler operation a minimum of once every four (4) hours unless otherwise required in any applicable code set for in the ASME or NBBI as adopted in 20 CAR §880-701;

(25) "Second-hand boiler" or "second-hand pressure vessel" means any boiler or pressure vessel which has undergone both a change of ownership and location;

(26) "Secretary" means the Secretary of the Arkansas Department of Labor and Licensing or his or her designee;

(27) "Section" means the Boiler Inspection Section;

(28) "State Special" means a boiler or fired/unfired pressure vessel of any type or size, which carries neither the ASME symbol nor National Board of Boiler and Pressure Vessel Inspectors stamping, which may be acceptable for use provided the manufacturer, installer, or owner obtains a variance pursuant to 20 CAR § 880-702;

(29) "Unfired pressure vessel or pressure vessels" means any unfired pressure vessel constructed for the accumulation, storage, or transportation of air, liquids, or gases that are under induced pressure, and as defined by Section VIII, Division 1, of the ASME Boiler Construction Code, except containers used for liquefied petroleum gases; and

(30) "Variance" means a petition presented in writing to the Chief Inspector of the Boiler Inspection Section for consideration of a non-code boiler or pressure vessel to be installed and used within the State of Arkansas.

Subpart 2. Rulemaking

20 CAR § 880-201. Rulemaking.

All rules and any subsequent amendments will be promulgated according to the Arkansas Administrative Procedure Act, Arkansas Code §25-15-201 et seq.

20 CAR § 880-202. Incorporation by reference.

(a) By reference in a rule, the Boiler Inspection Section may incorporate all or any part of a code, standard, rule, or other matter if the section finds that copying the matter in the section's rule would be unduly cumbersome, expensive, or otherwise inexpedient.

(b) The reference in the section rule will:

(1) Fully and precisely identify the incorporated matter by:

(A) Title;

(B) Citation;

(C) Date; and

(D) Edition, if any;

(2) Briefly indicate the precise subject and general contents of the incorporated matter; and

(3) State that the rule does not include any later amendments or editions of the incorporated matter.

(c) The section may incorporate such a matter by reference in a proposed or adopted rule only if the section makes copies of the incorporated matter readily available to the public.

(d) The rules must state how and where:

(1) Copies of the incorporated matter may be obtained at cost from the section; and

(2) Copies may be obtained from an agency of the United States, this state, another state, or the organization, association, or persons originally issuing that matter.

(e) The section will retain permanently a copy of any materials incorporated by reference in a rule of the section.

20 CAR § 880-203. Declaratory orders.

(a) **Purpose and use of declaratory orders.**

(1) A declaratory order is a means of resolving a controversy or answering questions or doubts concerning the applicability of statutory provisions, rules, or orders over which the Boiler Inspection Section has authority.

(2) A petition for declaratory order may be used only to resolve questions or doubts as to how the statutes, rules, or orders may apply to the petitioner's particular circumstances.

(3) A declaratory order is not the appropriate means for determining the conduct of another person or for obtaining a policy statement of general applicability from the section.

(4) A petition or declaratory order must describe the potential impact of statutes, rules, or orders upon the petitioner's interests.

(b) **The petition.** The process to obtain a declaratory order is begun by filing with the Director of Code Enforcement a petition that provides the following information:

(1) The caption shall read: "Petition for Declaratory Order Before Boiler Inspection Section";

(2) The name, address, telephone number, and email address of the petitioner;

(3) The name, address, telephone number, and email address of the attorney of the petitioner;

(4) The statutory provision or provisions, section rule or rules, or section order or orders on which the declaratory order is sought;

(5) A description of how the statutes, rules, or orders may substantially affect the petitioner and the petitioner's particular set of circumstances, and the question or issue on which petitioner seeks a declaratory order;

(6) The signature of the petitioner or petitioner's attorney;

(7) The date; and

(8) Request for a hearing, if desired.

(c) **Section disposition.**

(1)(A) The section may hold a hearing to consider a petition for declaratory statement.

(B) If a hearing is held, it shall be conducted in accordance with Arkansas Code §§ 25-15-208 and 25-15-213, and the section's rules for adjudicatory hearings.

(2)(A) The section may rely on the statements of fact set out in the petition without taking any position with regard to the validity of the facts.

(B) Within ninety (90) days of the filing of the petition, the section will render a final order denying the petition or issuing a declaratory order.

Subpart 3. Adjudicative Hearings

20 CAR § 880-301. Hearings generally.

All adjudicative hearings conducted by the Boiler Inspection Section shall be held according to the Arkansas Administrative Procedure Act, Arkansas Code §25-15-201 et seq.

Subpart 4. Licensing

20 CAR § 880-401. General.

(a) All Boiler Inspection Section action regarding licensure shall be governed by Arkansas Code § 20-23-101 et seq., this part, and, when applicable, Arkansas Code §§ 25-15-208 – 25-15-213.

(b) The section is responsible for licensure of:

(1) Boiler inspectors employed by insurance companies, Arkansas Code § 20-23-402;

(2) Boiler operators, Arkansas Code § 20-23-404;

(3) Sellers, installers, and repairers of boilers, unfired pressure vessels, hot water storage containers, and pressure piping, Arkansas Code § 20-23-405; and

(4) Third party inspection providers and inspectors.

20 CAR § 880-402. Requirement to keep current address on file.

(a) All persons holding a license or permit issued by the Boiler Inspection Section are required to provide the section with information so that the section can remain in contact and provide notice of complaints or hearings.

(b)(1) The licensee is required to provide written notice to the Boiler Inspection Section of any change in business or residence address within ten (10) working days of the change.

(2) Service of notices of hearing sent by mail will be addressed to the latest address on file with the section.

20 CAR § 880-403. Review of application.

(a) The application and supporting documentation will be reviewed by Boiler Inspection Section staff.

(b) The section will inform the applicant in writing if it determines that the application is incomplete, and will specify why the application is incomplete.

(c) When a completed application, a supplemental application, or the requested information is returned, the section will reinitiate action on the application for license.

(d) If all requirements are met, a license will be issued or the applicant will be allowed to take the licensing examination, whichever is applicable.

20 CAR § 880-404. Denial of license.

(a) If a preliminary determination is made that the application should be denied, the Boiler Inspection Section will inform the applicant of the opportunity for a hearing on the application.

(b)(1) The grounds or basis for the proposed denial of a license will be set forth in writing by the section.

(2) Any hearing on the denial of a license will be conducted in accordance with Arkansas Code §§ 25-15-208 and 25-15-213, and unless otherwise provided by law, the applicant has the burden of establishing entitlement to the license.

20 CAR § 880-405. Suspension, revocation, annulment, or withdrawal.

(a) Prior to the entry of a final order to suspend, revoke, annul, or withdraw a license, or to impose other sanctions upon a licensee, the Boiler Inspection Section will serve the licensee a notice of hearing in the manner set out in Arkansas Code § 25-15-208 and 20 CAR § 880-307.

(b) The section has the burden of proving the alleged facts and violations of law stated in the notice.

(c)(1) A license will not be renewed if there is an unpaid administrative fine or past due license fee.

(2) Further failure to pay an administrative fine may result in suspension or revocation of a license.

20 CAR § 880-406. Emergency action.

If the Boiler Inspection Section finds that the public health, safety, or welfare imperatively requires emergency action and incorporates that finding in its order, the section can summarily suspend, limit, or restrict a license pursuant to the Administrative Procedure Act, Arkansas Code §25-15-201 et seq.

20 CAR § 880-407. Voluntary surrender of license.

The licensee, in lieu of formal disciplinary proceedings, may offer to surrender his or her license, subject to the Boiler Inspection Section's determination to accept the proffered surrender, rather than conducting a formal disciplinary proceeding.

20 CAR § 880-408. Duty of sanctioned licensee.

In every case in which a license is revoked, suspended, or surrendered, the licensee shall, within thirty (30) days of the revocation, suspension, or surrender, do the following:

(1) Return his or her license and any license pocket cards to the Boiler Inspection Section's office;

(2) Notify all of his or her clients or employer in writing that his or her license has been:

(A) Revoked;

(B) Suspended; or

(C) Surrendered;

(3) Notify all clients or his or her employer to make arrangements for other services, calling attention to any urgency in seeking the substitution of another licensee;

(4) Deliver to all clients or employer any papers or property to which they are entitled, or notify the client or employer of a suitable time and place where the papers and other property may be obtained, calling attention to any urgency for obtaining the papers or other property;

(5) Refund any part of the fees paid in advance that have not been earned;

(6) Keep and maintain a record of the steps taken to accomplish the foregoing;

(7)(A) File with the section a list of all other state, federal, and administrative jurisdictions by which he or she is licensed.

(B) Upon such filing, the section will notify those entitled of the:

(i) Revocation;

(ii) Suspension; or

(iii) Surrender; and

(8)(A) The sanctioned licensee shall, within thirty (30) days of revocation, suspension, or surrender of the license, file an affidavit with the section that he or she has fully complied with the provisions of the order and completely performed the foregoing or provide a full explanation of the reasons for his or her noncompliance.

(B) Such affidavit shall also set forth the address where communications may thereafter be directed to the respondent.

20 CAR § 880-409. Reinstatement after suspension.

(a) An order suspending a license may provide that a person desiring reinstatement may file with the Director of Code Enforcement a verified petition requesting reinstatement.

(b) The petition for reinstatement must set out the following:

(1) That the individual has fully and promptly complied with the requirements of 20 CAR § 880-408 pertaining to the duty of a sanctioned licensee;

(2) That the individual has refrained from practicing in this occupation or business during the period of suspension;

(3) That the individual's license fee is current or has been tendered to the Boiler Inspection Section; and

(4) That the individual has fully complied with any requirements imposed as conditions for reinstatement.

(c) Any knowing misstatement of fact may constitute grounds for denial or revocation of reinstatement.

(d) Failure to comply with the provisions of 20 CAR § 880-408(7) and (8) precludes consideration for reinstatement.

(e) No individual will be reinstated unless the director approves reinstatement.

20 CAR § 880-410. Relicensure for revoked or surrendered license and general reinstatement.

(a)(1)(A) No individual who has had his or her license revoked or who has surrendered his or her license for an act of bad faith or a violation of law, rule, or ethics will be licensed, except on petition made to the Boiler Inspection Section.

(B) The application for relicensure is not allowed until at least two (2) years after the revocation or surrender of license took effect.

(2) The applicant bears the burden of proof that he or she:

(A) Is rehabilitated following the revocation or surrender of his or her license;

(B) Can engage in the conduct authorized by the license without undue risk to the public health, safety, and welfare; and

(C) Is otherwise qualified for the license pursuant to Arkansas Code § 20-23-101 et seq.

(3) The Boiler Inspection Section may impose any appropriate conditions or limitations on a license to protect the public health, safety, and welfare.

(4) The Boiler Inspection Section may require that the person seeking relicensure take the licensing examination if applicable.

(b) **Reinstatement.**

(1) An individual may seek reinstatement under this subsection provided the applicant for reinstatement demonstrates that he or she:

(A) Was previously licensed by the Boiler Inspection Section at any time;

(B) Was licensed in good standing at the time of licensing;

(C) Did not have his or her license revoked for an act of bad faith or a violation of law, rule, or ethics; and

(D) Is not holding a suspended or probationary license in this state or a sister state.

(2) The Director of Code Enforcement shall ensure that any application for reinstatement is handled in an expedited manner.

20 CAR § 880-411. Sellers, installers, and repairers.

(a) All persons, firms, or corporations engaged in the sale or installation of boilers, unfired pressure vessels, hot water storage containers, or pressure piping, or engaged in the repair of boilers or unfired pressure vessels shall be licensed by the Boiler Inspection Section, Arkansas Code § 20-23-405.

(b) The annual license fee shall be seventy-five dollars ($75.00) per year, payable in advance on or before January 31 of each calendar year.

(c) Applicants for a license who are manufacturers shall have the appropriate ASME stamp as required in the ASME codes any applicable NBBI standards adopted in 20 CAR § 880-701.

(d) Applicants for a license that perform welded repairs shall possess the National Board of Boiler and Pressure Vessel Inspectors "R" stamp or shall certify that they perform welded repairs only on vessels owned and operated by the applicant.

20 CAR § 880-412. Inspectors.

(a) Inspectors of boilers employed by insurance companies insuring boilers or an approved third-party provider in Arkansas must have a certificate of competency and commission issued by the Boiler Inspection Section, Arkansas Code § 20-23-401.

(b) The initial license fee shall be twenty-five dollars ($25.00), and the renewal fee shall be fifteen dollars ($15.00) annually.

(c) Applicants for a license must be employed by an insurance company or an approved third-party provider and must have passed the written examination for boiler inspectors administered by the National Board of Boiler and Pressure Vessel Inspectors.

(d) This section does not apply to boiler inspectors in the employ of the Department.

20 CAR § 880-413. Boiler operators.

(a) Boiler operators shall be licensed by the Boiler Inspection Section, Arkansas Code § 20-23-404.

(b) An applicant for a boiler operator's license shall:

(1) Have six (6) months of training under the supervision of a licensed boiler operator, or three (3) months of training under the supervision of a licensed boiler operator with the successful completion of a department approved boiler training program, which shall be confirmed by the applicant's employer and submitted to the section with the application; and

(2)(A) Pass an examination administered by the section.

(B) Such examination may be in writing or may be administered orally.

(C) The applicant must score seventy percent (70%) for a passing grade on the examination.

(c)(1) An applicant shall pay an initial fee of twenty-five dollars ($25.00) for examination and licensure.

(2) The license shall be renewed annually at a fee of seventeen dollars ($17.00).

20 CAR § 880-414. Restricted lifetime licenses, Arkansas Code § 20-23-406.

(a) **Boiler inspectors.** To qualify for a restricted lifetime boiler inspector's certificate of competency and commission, an applicant shall:

(1) Have been commissioned as a boiler inspector for no fewer than twelve (12) years;

(2) Be at least sixty-five (65) years of age; and

(3) Have a current boiler inspector commission issued by the Boiler Inspection Section.

(b) **Boiler operators.** To qualify for a restricted lifetime boiler operator's certificate of competency and commission, an applicant shall:

(1) Have been commissioned as a boiler operator for no fewer than twelve (12) years;

(2) Be at least sixty-five (65) years of age; and

(3) Have a current boiler operator license issued by the section.

(c) **Installers, sellers, or repairers.** To qualify for a restricted lifetime license as a boiler installer, seller, or repairer, an applicant shall:

(1) Have been licensed for no fewer than twelve (12) years;

(2) Be at least sixty-five (65) years of age; and

(3) Have a current license issued by the section.

(d) **Application.**

(1) An application for a restricted lifetime license shall be on a form approved by the section.

(2) An applicant for any restricted lifetime license listed above must submit satisfactory proof of age which may include one (1) of the following:

(A) A birth certificate;

(B) A passport or certificate of arrival in the United States;

(C) A state-issued driver's license or identification card;

(D) Any document issued by the United States Armed Forces which includes a photograph or information including:

(i) Name;

(ii) Sex;

(iii) Date of birth; and

(iv) Other identifying information; or

(E) Any other document of similar reliability acceptable to the section.

(e) **Restrictions.** A person holding a restricted lifetime license must comply with Arkansas Code § 20-23-101 et seq., and this part in the same manner and to the same extent as any regularly licensed individual.

(f) **Fees.** Each applicant for a restricted lifetime license pursuant to this section shall pay a one-time fee of fifty dollars ($50.00).

20 CAR § 880-415. Automatic licensure for uniformed service members for boiler operator license.

(a) As used in this section, a "uniformed service veteran" means a former member of the uniformed services of the United States discharged under circumstances other than dishonorable.

(b) The Boiler Inspection Section of the Department of Labor and Licensing, shall grant automatic licensure to an individual who is the holder in good standing of a license with a similar scope of practice issued by another state, territory, or district of the United States and is:

(1) A uniformed service member stationed in the State of Arkansas;

(2) A uniformed service veteran who resides in or establishes residency in the State of Arkansas; or

(3) The spouse of:

(A) A person under subdivision (b)(1) or (b)(2) of this section;

(B) A uniformed service member who is assigned a tour of duty that excludes the uniformed service member's spouse from accompanying the uniformed service member and the spouse relocates to this state; or

(C) A uniformed service member who is killed or succumbs to his or her injuries or illness in the line of duty if the spouse establishes residency in the state.

(c) The Boiler Inspection Section shall grant such automatic licensure upon receipt of all the below:

(1) Payment of the initial licensure fee;

(2) Evidence that the individual holds a license with a similar scope of practice in another state; and

(3) Evidence that the applicant is a qualified applicant under subsection (b) of this section.

(d) The expiration date of a license for a deployed uniform service member or spouse will be extended for one hundred eighty (180) days following the date of the uniformed service member's return from deployment.

(e) This section shall apply only to applicants for a license as a boiler operator.

20 CAR § 880-416. Earn and learn.

(a) The Boiler Inspection Section shall grant a license to an individual applicant for a boiler operator's license who:

(1) Completed an apprenticeship as a boiler operator in an apprenticeship program that meets the federal guidelines set out in 29 C.F.R. pt. 29, as existing on March 1, 2021;

(2) Passes the examination with the score required of all applicants;

(3) Pays the licensing fee unless waived;

(4) Does not have a disqualifying criminal record as determined by the section under state law; and

(5) Completes all other requirements for licensure unrelated to training and education.

(b) Should the section deny an application under subsection (a) of this section, the section shall provide the applicant with a written denial detailing the reason for the denial.

(c) An apprenticeship for a boiler operator is not required to exceed the six (6) months required by 20 CAR § 880-413, except as otherwise required by federal law.

20 CAR § 880-417. Initial license fee waiver.

The Boiler Inspection Section shall waive the initial license fee for an individual applicant if the applicant:

(1) Is receiving assistance through the:

(A) Arkansas Medicaid Program;

(B) Supplemental Nutrition Assistance Program;

(C) Special Supplemental Nutrition Program for Women, Infants, and Children;

(D) Temporary Assistance for Needy Families Program; or

(E) Lifeline Assistance Program;

(2) Was approved for unemployment within the last twelve (12) months; or

(3) Has an income that does not exceed two hundred percent (200%) of the federal poverty income guidelines.

20 CAR § 880-418. Reciprocity.

(a) An applicant applying for reciprocal licensure shall meet the following requirements:

(1)(A) Shall hold a substantially similar license in another United States jurisdiction.

(B) A license from another state is substantially similar to the license sought by the applicant if the other state's licensure qualifications require:

(i) For sellers, installers, and repairers, the appropriate ASME code stamp as required per 20 CAR § 880-411;

(ii) For inspectors, employment by an insurance company or approved third-party provider and proof of successful passage of the examination for boiler inspectors administered by the National Board of Boiler and Pressure Vessel Inspectors; and

(iii) For boiler operators, an examination requirement with an experience requirement of at least six (6) months;

(2) Shall hold his or her license in good standing and shall provide a letter from the licensing authority attesting the disciplinary status of the applicant and show that he or she has not had a license revoked for:

(A) An act of bad faith; or

(B) A violation of law, rule, or ethics; and

(3) Shall not hold a suspended or probationary license in a United States jurisdiction.

(b) **Required documentation.** An applicant shall submit a fully executed application, with the required fee, and the documentation described below:

(1) As evidence that the applicant's license from another jurisdiction is substantially similar to Arkansas's, the applicant shall submit the following:

(A)(i) Evidence of current and active licensure in the sister state.

(ii) The Boiler Inspection Section may verify this information online if the jurisdiction at issue provides primary source verification on its website, or by telephone to the sister state's licensing entity; and

(B)(i) Evidence that the sister state's licensing requirements match those listed in subdivision (a)(1) of this section.

(ii) The section may verify this information online or by telephone with the sister state's licensing entity;

(2) To demonstrate that he or she meets the requirement in subdivision (a)(2) of this section, the applicant shall provide the section with:

(A) The names of all states in which the applicant is currently or has been previously licensed; and

(B)(i) Letters of good standing or other information from each state in which the applicant is currently or has ever been licensed showing that he or she has not had his or her license revoked for the reasons listed in subdivisions (a)(2) and (3) of this section.

(ii) The section may verify this information online or by telephone with the other state's licensing entity; and

(3) As evidence that the applicant is sufficiently competent, he or she shall:

(A) If an applicant is seeking a license as a seller, installer, or repairer, proof of the appropriate ASME code stamp as required per 20 CAR § 880-411;

(B) If an applicant is seeking a license as an inspector, proof of employment by an insurance company or approved third-party provider authorized to insure boilers in Arkansas and proof of successful passage of the examination for boiler inspectors administered by the National Board of Boiler and Pressure Vessel Inspectors; and

(C) If an applicant is seeking a license as a boiler operator, proof of at least six (6) months experience.

(c) **Temporary and provisional license.**

(1) The section shall issue a temporary and provisional license immediately upon receipt of the application, the required fee, and the documentation required under subdivisions (b)(1) and (2) of this section.

(2) A temporary and provisional license shall be effective for at least ninety (90) days or until the section makes a decision on the application, unless the section determines that the applicant does not meet the requirements in subsection (b) of this section, in which case the temporary and provisional license shall be revoked immediately.

(3) An applicant may provide the rest of the documentation required above in order to receive a license, or the applicant may provide only the information necessary for the issuance of a temporary and provisional license.

(d) **License for a person from a state that does not license boiler operators.**

(1) **Required qualifications.** An applicant from a state that does not license boiler operators shall meet the following requirements:

(A) Have six (6) months experience as a boiler operator; and

(B) Pass the examination administered by the section.

(2) **Required documentation.** An applicant for a boiler operator license shall submit a fully executed application, the required fee, and the documentation described below to show that the applicant is sufficiently competent:

(A) Letter or letters from former employers verifying six (6) months experience as a boiler operator; and

(B) A passing score on the examination administered by the section.

Subpart 5. Permitting

20 CAR § 880-501. Installation permits.

(a)(1) Installation permits are required by Arkansas Code § 20-23-307.

(2) The fees for such permits are established by Arkansas Code § 20-23-308.

(b) In the event an installation permit is denied by the Boiler Inspection Section, the applicant may request an adjudicative hearing pursuant to 20 CAR § 880-301 et seq., within twenty (20) days of notice of the denial.

20 CAR § 880-502. Operating certificates or permits.

(a)(1) Operating certificates or permits are required by Arkansas Code § 20-23-301.

(2) The fees for such permits or certificates are established by Arkansas Code § 20-23-306 and are fifteen dollars ($15.00) for boilers and thirty dollars ($30.00) for unfired pressure vessels.

(b)(1) In the event an operating certificate or permit is suspended or revoked by an inspector or the Boiler Inspection Section, the owner or user may request an adjudicative hearing within twenty (20) days of the suspension or revocation.

(2) Failure to request a timely hearing shall mean that the suspension or revocation is a final administrative determination.

(c) An operating certificate will not be renewed if there is an unpaid administrative fine or uncorrected violations.

Subpart 6. General Requirements and Exemptions

20 CAR § 880-601. Construction requirements.

All boilers and pressure vessels must be constructed in accordance with the ASME code, as adopted by 20 CAR § 880-701 and registered with the National Board of Boiler and Pressure Vessel Inspectors, except for those vessels stamped "UM" pursuant to U-1 and UG-115 of Section VIII-Division 1 of the ASME code as adopted by 20 CAR § 880-701, and air vessels of twelve gallons (12 gals.) or less containing one hundred fifty pounds per square inch (150 psi) or less as exempted by Arkansas Code § 20-23-102(a)(2).

20 CAR § 880-602. Installation requirements.

(a) Installers, sellers, or repairers of boilers and pressure vessels must be licensed by the Boiler Inspection Section.

(b) Installers must obtain installation permits from the section.

20 CAR § 880-603. Inspection requirements.

(a) All boilers shall be inspected as follows:

(1)(A) High-pressure steam boilers shall be inspected internally and externally once each year unless the Chief Inspector of the Boiler Inspection Section grants an extension for good cause.

(B) Such an extension shall:

(i) Not exceed six (6) months;

(ii) Cause the time period for the next annual inspection to begin on the day following the date of inspection; and

(iii) Include a nonrefundable fee of twenty-five dollars ($25.00);

(2) All low-pressure steam boilers shall be inspected externally annually and internally once each three (3) years to the extent permitted by the design and construction of the vessel;

(3) All hot water heating boilers shall be inspected externally annually and internally if required by the inspector; and

(4) An inspector may require a more frequent inspection than those required in subdivisions (a)(1) – (3) of this section if the inspector has reason to question the integrity of the boiler or boiler controls.

(b) Pressure vessels shall be inspected biennially externally and internally where conditions permit.

(c)(1) Insurance companies shall employ inspectors licensed pursuant to Arkansas Code § 20-23-402, and shall inspect all boilers and pressure vessels insured by them.

(2) Insurance companies shall file annual reports of all boilers and pressure vessels insured and inspected by the company with the Boiler Inspection Section by January 30 of each year.

(3) Insurance company inspectors must report all boilers and pressure vessels found during their inspections that are in use, but not insured by their insurance company.

(d)(1) Authorized inspectors can shut down equipment they consider unsafe.

(2) Any inspector knowingly reporting an unsafe boiler as safe to operate may be subject to sanction, fines, or criminal prosecution.

(e) Inspectors shall attach state numbers to vessels as follows:

(1) High-pressure boiler state number shall be preceded by the letters "AR";

(2) Low-pressure boilers used for heating or hot water supply and unfired pressure vessels state numbers shall be preceded by the letters "AR"; and

(3) All fired and unfired hot water heaters which come under the law shall have a state number assigned which shall be preceded by the letters "AR".

(f)(1) Insurance companies shall notify the section of any cancellation of insurance coverage or any new insurance policy issued within thirty (30) days of the event on a form approved by the section.

(2) In the event insurance coverage is canceled due to an existing dangerous defect, the section shall be notified immediately.

(3) If insurance companies do not file their inspection reports with the section within thirty (30) days from the date the inspection is due, the section shall make the required inspection, and charge the insurance company for a special inspection fee of one hundred dollars ($100) per vessel.

(g)(1) Approved third-party providers shall provide a list of objects that they have contracted to perform inspections on that are covered by this part.

(2) Approved third-party providers shall notify the section in writing within thirty (30) calendar days when their agreement to inspect any object covered by this part has ended.

(3) Approved third-party providers shall comply with all applicable requirements stated in 20 CAR §880-603.

20 CAR § 880-604. Exemptions from permit and inspection.

The following are exempt from installation permits and inspections to the extent stated:

(1) Hot water heating boilers below two hundred thousand British thermal units per hour (200,000 Btu/hr) input, except that such objects located in schools, daycare centers, hospitals, and nursing homes shall be inspected annually as provided in 20 CAR §880-705;

(2) Air tanks in garages and service stations that perform vehicular service or do vehicular repair work, including bodywork repair shops as part of daily operations;

(3) Air tanks of five cubic feet (5 ft^3) capacity (thirty seven and one-half gallons (37.5 gals.)) or less containing two hundred pounds per square inch gauge (200 psig) or less are exempt from inspection and permitting, however tanks above twelve

gallons (12 gals.) or one hundred fifty pounds per square inch gauge (150 psig) must be "UM" stamped;

(4) Boilers and pressure vessels subject to inspection by the United States Department of Transportation;

(5) Boilers and pressure vessels used in private residences and apartment complexes with eight (8) apartments or less;

(6) Pressure vessels with six inches (6") internal diameter or less, with no limit on length of vessel or pressure;

(7) Pressure vessels, other than air tanks, with a maximum allowable working pressure of fifteen pounds per square inch (15 psi) or less, or a volume of five cubic feet (5 ft^3) or less;

(8) Liquefied petroleum gas vessels (propane and butane tanks);

(9) Boilers and pressure vessels used in the production, transmission, or storage of oil, natural gas, or casinghead gas (refineries);

(10)(A) Coil-type steam generators that do not have an accumulator drum.

(B) Coil-type hot water boilers where the water can flash into steam when released directly to the atmosphere through a manually operated nozzle may be exempted from this subpart provided the following conditions are met:

(i) There is no drum, header, or other steam space;

(ii) No steam is generated within the coil;

(iii) Tubing outside diameter does not exceed one inch (1");

(iv) Pipe size does not exceed nominal pipe size three-quarters (3/4);

(v) Nominal water capacity does not exceed six gallons (6 gals.);

(vi) Water temperature does not exceed three hundred fifty degrees Fahrenheit (350° F); and

(vii) Adequate safety relief valves and controls are provided;

(11) Fired and unfired water heaters below two hundred thousand British thermal units per hour (200,000 Btu/hr), however, such objects located in schools, daycare centers, hospitals, and nursing homes shall be inspected;

(12)(A) Hot water supply storage tanks.

(B) Tanks which are heated by steam or any other direct or indirect means, when none of the following are exceeded:

(i) Heat input of less than two hundred thousand British thermal units per hour (200,000 Btu/hr);

(ii) Water temperature of less than two hundred ten degrees Fahrenheit (210° F); and

(iii) Nominal water containing capacity of less than one hundred twenty gallons (120 gals.);

(13) Pressure vessels which are an integral part of:

(A) Components of rotating or reciprocating mechanical devices and hydraulic or pneumatic cylinders where the primary design considerations and/or stresses are derived from the functional requirements of the device; or

(B) The structure that has a primary function of transporting fluids from one (1) location to another within the system;

(14) Vessels with a capacity of one hundred twenty gallons (120 gals.) or less for containing water under pressure, including those containing air, the compression of which serves only as a cushion; and

(15) Fired swimming pool heaters, except those in publicly owned swimming pools.

20 CAR § 880-605. Repair requirements.

(a) Major repairs and all welding repairs must have Boiler Inspection Section approval.

(b) Repairs must be done in accordance with ASME and the National Board of Boiler and Pressure Vessel Inspectors Inspection Code as adopted by 20 CAR § 880-701.

(c) Repairs must be accomplished by a licensed entity.

(d) Repair firms must obtain a license to engage in repair work from the section.

(e) Plants with qualified maintenance personnel may perform their own repairs on their own boilers and pressure vessels, but all such repairs shall comply with the

National Board of Boiler and Pressure Vessel Inspectors Inspection Code as adopted by 20 CAR § 880-701.

20 CAR § 880-606. Miscellaneous.

(a) There are special requirements pertaining to anhydrous ammonia equipment and facilities contained elsewhere in this part and in Arkansas Code § 20-23-101 et seq.

(b) Explosions and accidents must be reported by the owner/operator to the Boiler Inspection Section within twenty-four (24) hours.

(c) Steam boilers fifty (50) horsepower and over, and steam boilers used in hospitals, hotels, motels, schools, day cares, nursing homes, theatres, and office buildings must be under regular attendance by a licensed operator.

(d) Manually operated boilers must be under constant attendance when fired.

(e)(1) Inspection certificates to operate power and heating boilers shall be posted in the boiler room.

(2) Inspection certificates for unfired pressure vessels and portable boilers shall be kept on the premises with the vessel.

(f) Safety valves must meet ASME code requirements, as adopted by 20 CAR § 880-701.

(g) Blowoff piping and tanks must meet ASME code requirements as adopted by 20 CAR § 880-701.

(h) Water columns must meet ASME code requirements as adopted by 20 CAR § 880-701.

(i) All boilers, whether gas, oil, or mechanically fired, shall be provided with an automatic low-water fuel cutout so located as to automatically cut off the fuel supply in case the water level falls to a point not lower than the bottom of the water glass.

Subpart 7. Standards

20 CAR § 880-701. Minimum standards.

(a) All new and used boilers, unfired pressure vessels, and steam-generating apparatuses installed in the state shall be built to conform with the specifications and provisions of the Boiler and Pressure Vessel Construction Codes of the American Society of Mechanical Engineers (ASME), 2025 edition, specifically, the following sections of the ASME codes, 2025 edition, are adopted by reference and incorporated herein:

(1) Sec. I, Power Boilers;

(2) Sec. II, Material Specifications;

(3) Sec. III, Subsection NCA, General Requirements for Divisions 1 & 2;

(4) Sec. IV, Heating Boilers;

(5) Sec. V, Nondestructive Examination;

(6) Sec. VI, Recommended Rules for care and operation of heating boilers;

(7) Sec. VII, Recommended guidelines for the care of power boilers;

(8) Sec. VIII, Pressure Vessels Divisions 1 and 2;

(9) Sec. IX, Welding and Brazing Qualifications;

(10) Sec. X, Fiberglass-reinforced plastic pressure vessels;

(11) Sec. XI, Rules for in-service inspections of nuclear power plants; and

(12) B31.1, Power Piping.

(b) The minimum standards for controls and safety devices shall be Controls and Safety Devices for Automatically Fired Boilers, ANSI/ASME, CSD-1, 2024 edition and addenda, which is adopted by reference and incorporated herein.

(c) The minimum standards for conducting inspections of boilers and pressure vessels shall be Part RB, In-service Inspection of Pressure-Retaining Items, of the National Board Inspection Code, 2025 edition, which is adopted by reference and incorporated herein.

(d) The minimum standards for repairs shall be Part RC (Repairs & Alterations) of the National Board Inspection Code, 2025 edition, which is adopted by reference and incorporated herein.

(e)(1) The minimum standards for storage and handling of anhydrous ammonia shall be the American National Standards Institute (ANSI), CGA G-2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia, 2023 edition, which is adopted by reference and incorporated herein, as well as applicable ASME code provisions including B31.5 for refrigeration piping.

(2) The standards for boilers with fuel input rating of 12.5 million Btu/hr (12.5 MMBtu/hr) or 3.6 MW and above shall follow National Fire Protection Association (NFPA) 85 for design, installation, operation, maintenance, and testing in conjunction with the application section or sections of the ASME and the NBBI as adopted by 20 CAR §880-701.

(f) This section does not include any later amendments or editions of the standards incorporated by reference.

(g) Copies of these standards incorporated by reference can be viewed in the offices of the Boiler Inspection Section or can be obtained by contacting the following:

(1) The ASME codes are available through:

American Society of Mechanical Engineers
22 Law Drive
P. O. Box 2300
Fairfield, NJ 07007-2300
1-800-843-2763
www.asme.org

(2) The National Board of Boiler and Pressure Vessel Inspectors Inspection Code is available through:

National Board of Boiler and Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, OH 43229-1183
614-888-8320
www.nationalboard.org

(3) The American National Standards Institute (ANSI) Standards are available through:

American National Standards Institute
25 West 43rd Street
New York, NY 10036
www.ansi.org

(4) The National Fire Protection Association (NFPA) Standards are available through:

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471
www.nfpa.org

(h) Exemptions are listed under Arkansas Code § 20-23-102, 20 CAR § 880-604, and the referenced ASME codes listed above.

(i)(1) The provisions of Arkansas Code § 20-23-101 et seq., and this part may differ from the language of the ASME codes concerning construction or exemptions.

(2) In such cases, state statutes and this part override the ASME.

(3) In the event there is a conflict between an ASME code and a statute or other rule adopted by the Boiler Inspection Section, such statute or other rule shall apply and control.

(j) All boilers and pressure vessels shall be stamped "National Board" unless exceptions are made by this part.

(k)(1) Fired storage water heaters rated two hundred thousand British thermal units (200,000 Btu) and below are exempt from ASME construction and National Board of Boiler and Pressure Vessel Inspectors registration.

(2) These objects are not exempt from state inspection.

(3) All such objects located in schools, hospitals, nursing homes, and daycare centers shall be inspected annually in accordance with 20 CAR §880-705.

(l)(1) The hydrostatic test pressure of both new and used boilers and pressure vessels shall be obtained from the vessel's data report or vessel nameplate.

(2) For boilers, the test pressure shall at no time exceed ninety percent (90%) of its yield strength.

(3) For unfired pressure vessels, the test pressure shall at no time exceed one and three-tenths (1.3) times the MAWP (maximum allowable working pressure) at any point within the vessel.

(4) Pneumatic testing of a pressure vessel shall not exceed one and one-tenth (1.1) times the MAWP stamped on the vessel.

(m)(1) Boilers below fifty (50) horsepower are not subject to the additional hydrostatic test requirements outlined in the ASME code for boilers that have been hydrostatically tested at the manufacturer, and for which the boiler external piping has not been shipped with the boiler.

(2) Boiler external piping for these boilers, which must be separately manufactured, shall be tested in accordance with B31.1 and code stamped if required.

(3) Anhydrous Ammonia pressure piping shall be designed in accordance with ASME B31.5 and code stamped if required.

20 CAR § 880-702. Variances.

(a)(1) The Boiler Inspection Section may, in any particular case, grant an exception or variance from the literal requirements of the minimum standards for construction, installation, repair, and operation set out in the ASME codes as adopted in 20 CAR § 880-701.

(2) A variance shall be granted only when both of the following conditions are present:

(A) Existing conditions or undue hardship prevent compliance with the literal requirements of this part; and

(B) Equivalent safety will be secured.

(b) **Procedure.**

(1)(A) An application for a variance shall be submitted by the owner, operator, or installer to the section on a form approved by the section.

(B) The application shall be accompanied by an application for installation or repair and detailed plans and specifications for the vessel, together with any other information requested by the Chief Inspector of the Boiler Inspection Section.

(C) The applicant shall state with specificity the rule or ASME standard for which a variance is sought.

(D) Failure to comply may result in dismissal of the application for a variance.

(2)(A) The Chief Inspector of the Boiler Inspection Section may grant or deny the variance or impose conditions upon the granting of the variance.

(B) If the variance is denied, the applicant may request an adjudicative hearing pursuant to 20 CAR § 880-301.

(C) Such a hearing shall be before an appointed administrative hearing officer by the Department who shall make a recommendation to the Director of Code Enforcement.

(D) The director shall make a final administrative determination.

(3)(A) The Chief Inspector of the Boiler Inspection Section may neither grant nor deny the variance but refer it for an adjudicative hearing pursuant to 20 CAR § 880-301.

(B) The director shall make a final administrative determination.

(c) The owner or operator shall maintain the variance certificate or order at the location of the boiler and make it accessible to any licensed boiler inspector.

20 CAR § 880-703. Administrative penalties.

(a) **Types of fines.** The Boiler Inspection Section is authorized to issue the following administrative fines:

(1) Arkansas Code § 20-23-301 authorizes a fine of no less than twenty-five dollars ($25.00) and not more than one thousand dollars ($1,000) for the following:

(A) Operating a boiler or pressure vessel without a certificate of inspection or operating permit;

(B) Operating a boiler or pressure vessel at a pressure greater than permitted by the certificate of inspection or operating permit;

(C) Installing, repairing, or operating a boiler or pressure vessel in violation of this part, including the ASME standards adopted by 20 CAR § 880-701;

(D) Operating a boiler or pressure vessel on which the permit has been suspended or operation has been forbidden by a licensed inspector; and

(E) Installing pressure piping in violation of this part or the ASME standards adopted by 20 CAR § 880-701;

(2) Arkansas Code § 20-23-302 authorizes an administrative fine of one hundred dollars ($100) for any owner or operator who fails to report the location of a boiler or pressure vessel to the Boiler Inspection Section;

(3) Arkansas Code § 20-23-311(d) provides that any owner or user who fails to pay an inspection fee within thirty (30) days of it being due, shall be subject to a civil penalty equal to the amount of the inspection fee;

(4) Arkansas Code § 20-23-404(b)(2) authorizes an administrative fine of not less than twenty-five dollars ($25.00) and not more than one hundred dollars ($100) for operating a boiler without a boiler operator's license; and

(5) Arkansas Code § 20-23-407 authorizes an administrative fine of not less than one hundred dollars ($100) and not more than five thousand dollars ($5,000) per violation per day to any owner/user participating in the owner/user program in 20 CAR § 880-1301 et seq., for the failure to comply with this part, including the ASME standards adopted by 20 CAR § 880-701.

(b) **Procedure.**

(1) In administrative fine cases, the Director of Code Enforcement or his or her designeeshall notify the person or persons or entity charged with the violation or violations by certified mail of the following:

(A) A statement identifying the boiler or pressure vessel by state-issued identification number, as well as the physical address of the boiler or pressure vessel;

(B) A short, plain statement of the facts constituting the violation or violations, together with a citation to the statute, rule, or standard violated;

(C) The amount of the administrative fine or civil penalty;

(D) The date of the boiler inspection, if applicable; and

(E) A statement that the administrative fine or penalty shall be final unless within:

(i) Ten (10) days after receipt of this notice, the owner or user pays any delinquent inspection fee required for issuance of an operating certificate; or

(ii) Twenty (20) days after receipt of this notice, the person, firm, corporation, partnership, or association charged with the violation or violations notifies the director in writing that he or she contests the penalty.

(2)(A) Notice of the fine or civil penalty will be sent by United States Postal Service, return receipt requested, delivery restricted to the named recipient or his or her agent.

(B) Notice shall be sufficient when it is so mailed to the respondent's latest address on file with the Boiler Inspection Section.

(C) Notice may also be made in the same manner as authorized for a summons in a civil action.

(3) If the person or entity charged with the violation has not filed notice that he or she contests the administrative fine within twenty (20) days after receiving notice in accordance with subdivision (b)(1) of this section, the fine or penalty assessment by the Director of Code Enforcement shall constitute a final administrative determination.

(4)(A) A fine or penalty may be contested by filing a written request for a hearing with the:

Director Code Enforcement
900 West Capitol, Suite 400
Little Rock, AR 72201

(B) The written request must be received by the director within twenty (20) days of person or entity's receipt of the notification of the fine or penalty.

(5)(A) A contested fine shall be set for an adjudicative hearing pursuant to 20 CAR § 880-301.

(B) The director shall designate a hearing officer.

(c) Assessment of an administrative fine shall be made no later than two (2) years from the date of the occurrence of the violation.

20 CAR § 880-704. Installation.

(a) **Generally.**

(1)(A) Every manufacturer, contractor, jobber, owner, or user of a boiler or unfired pressure vessel shall obtain permission from the Boiler Inspection Section before any boiler or unfired pressure vessel may be installed or moved and reinstalled in the State of Arkansas.

(B) When boilers or unfired pressure vessels are to be installed, the manufacturer's data report for each boiler and unfired pressure vessel must be submitted with the application for installation.

(C) No boiler or unfired pressure vessel may be installed without approval from the section.

(D) All persons, firms, or corporations engaged in the installation of boilers, unfired pressure vessels or hot water storage tanks or fired/unfired storage water heaters two hundred thousand British thermal units per hour (200,000 Btu/hr) or greater input in any location shall be licensed by the section to perform such work pursuant to Arkansas Code § 20-23-405 and 20 CAR § 880-401 et seq.

(2)(A) All new and second-hand boilers and pressure vessels shall be installed and equipped to conform to the requirements of the ASME Boiler Construction Code and CSD-1 as adopted by 20 CAR § 880-701, and shall be inspected and approved by a state boiler inspector, approved third-party inspector, or an authorized insurance inspector before they are placed in service.

(B) All such work must be performed by persons or firms possessing the requisite license and any applicable NBBI certification.

(C) Permits must be obtained from the Boiler Inspection Section for each boiler and/or pressure vessel before they may be installed.

20 CAR § 880-705. Inspections.

(a)(1) No person shall operate or cause to be operated any new boiler or unfired pressure vessel which has been installed or erected, or any used boiler or unfired pressure vessel which has been reinstalled or re-erected in the State of Arkansas, until it has been inspected by a state boiler inspector or an authorized insurance inspector and a certificate of inspection has been issued as required by Arkansas Code § 20-23-301.

(2) The certificate of inspection for power and heating boilers shall be posted in the boiler or engine room in a location where it may be easily read by the engineer or firefighter.

(3) Certificates of inspection for unfired pressure vessels or portable boilers shall be kept on the premises where such pressure vessels or boilers are located and shall be accessible at all times.

(b)(1) The owner or user of a boiler which requires annual internal inspection shall prepare the boiler for inspection by:

(A) Cooling it down;

(B) Blanking off connections to adjacent boilers if necessary;

(C) Drawing off the water;

(D) Removing the handhole and manhole plates;

(E) Opening the low-water cutout;

(F) Removing the water column plugs; and

(G) Removing the grate bars from internally fired boilers.

(2) When considered necessary by the inspector, the brickwork, lagging, jacketing, appliances, other parts or fittings, and any boiler covering shall be removed.

(c)(1) The combustion chamber and passages and the firebox shall be cleaned and soot and ashes removed.

(2) Water, scale, and mud must be removed from the interior portions of the boiler.

(3) Unfired pressure vessels shall be prepared for inspection in a manner that will ensure a thorough and proper inspection.

(d) Where, in the opinion of the inspector, as a result of conditions disclosed at an inspection, it is deemed advisable to remove interior or exterior lining, covering, or brick work to expose certain parts of the vessel not visible, the inspector shall require the removal of such materials to permit the proper inspection and the drilling of any part of the vessel when necessary to ascertain thickness.

(e) When the tensile strength is not known, it shall be taken as fifty-five thousand pounds per square inch (55,000 psi) for temperatures not exceeding six hundred fifty degrees Fahrenheit (650° F).

(f)(1) If at any time the owner, user, or agent of the owner of any boiler within the state shall desire a special inspection of any boiler or unfired pressure vessel, it shall be made by the Boiler Inspection Section after due request, and the section shall collect a fee of one hundred dollars ($100) for each boiler.

(2) All inspection fees shall be paid by the owner, user, or agent of the owner.

(g)(1) All boilers or unfired pressure vessels that have been inspected and found unsafe by an authorized inspector shall be stamped "XXOOOXX", which will designate it as an unsafe boiler.

(2) No person except an authorized inspector shall deface or remove such stamping.

(h)(1) If, upon an external inspection, there is evidence of a leak or crack, enough of the covering of the boiler or unfired pressure vessel shall be removed to enable the inspector to determine the safety of the boiler or unfired pressure vessel.

(2) If the covering cannot be removed at that time, the inspector may order the operation of the boiler or unfired pressure vessel stopped until the covering can be removed and proper examination made.

(i)(1) If in the judgment of an authorized inspector the condition of a boiler warrants the certificate being withheld or withdrawn, such reasons shall be stated fully in a report to the Boiler Inspection Section.

(2) When a certificate has been withdrawn or withheld, it shall not be reissued until a repair or inspection report has been filed with the Boiler Inspection Section showing that the boiler has been placed in a safe working condition.

(j) When an authorized inspector finds it necessary to change the pressure allowed on a boiler, either increasing or decreasing it, the reasons therefore shall be stated on the report and the certificate taken up and forwarded with the report to the Boiler Inspection Section.

(k) **Inspectors.**

(1) Inspectors of boilers and/or unfired pressure vessels employed by insurance companies are required to hold certificates of competency issued by the Boiler Inspection Section.

(2) Any inspector of steam boilers who shall report a boiler for a certificate of inspection as safe to operate while knowing such report to be false and that the boiler is unsafe to operate, or who shall fail to perform his or her duties as required by this part or Arkansas Code § 20-23-101 et seq., or who shall cause the repair, installation, or sale of a boiler that does not comply with the standards as set out in Arkansas Code § 20-23-101 et seq., and this part, shall be subject to the criminal penalties provided by Arkansas Code § 20-23-403, as well as sanctions or fines issued by the Boiler Inspection Section pursuant to 20 CAR § 880-401 et seq., and 20 CAR § 880-703.

(3)(A) All boilers inspected by insurance companies shall be inspected as follows:

(i) High-pressure steam boilers shall be inspected internally and externally at least once each year;

(ii) All low-pressure steam boilers shall be inspected externally annually and internally once each three (3) years as far as construction permits; and

(iii) All hot water heating boilers shall be inspected externally annually, and internally if required, by the inspector.

(B) These times may be shortened at any time an inspector feels there is reason to question the boiler or controls integrity.

(C) If the internal and external inspections are made on different dates, two (2) inspection reports shall be filed with the Boiler Inspection Section.

(4) The annual internal inspection, or general inspection where internal inspection cannot be made, shall be made at least once each twelve (12) months, and should be made during the same calendar month each year if possible.

(5) If annual inspection reports are not filed with the Boiler Inspection Section by insurance companies who have insurance on boilers in the State of Arkansas within sixty (60) days from the date they are due inspection, the Boiler Inspection Section shall make the required inspection, and a special fee of one hundred dollars ($100) for each boiler or unfired pressure vessel inspected shall be charged to the insurance company insuring the boilers or unfired pressure vessels unless extension of time is granted by the Chief Inspector of the Boiler Inspection Section.

(6)(A) When insurance on a boiler or pressure vessel is canceled or new business is written, the Boiler Inspection Section shall be notified on approved forms.

(B) The reason for cancellation must be given.

(C) When insurance is canceled because of an existing dangerous defect, the Boiler Inspection Section shall be notified immediately upon cancellation of the insurance.

(7) All representations and recommendations made by authorized inspectors, Department of Labor and Licensing inspectors, approved third-party inspectors, or insurance inspectors, in regard to necessary repairs and pressure to be allowed, are subject to the final approval or disapproval of the Chief Inspector of the Boiler Inspection Section.

(8) Insurance companies must report to the Boiler Inspection Section any boiler and/or unfired pressure vessel that is in use and not insured by them in any location of their insured within thirty (30) days from the date of discovery of the vessel.

(9)(A) All authorized inspectors as well as the owner or user of a boiler or unfired pressure vessel shall notify the Boiler Inspection Section of any explosion or accident involving a boiler or unfired pressure vessel.

(B) No part or parts of such boiler or unfired pressure vessel shall be disturbed or moved until authority to do so is granted by the Chief Inspector of the Boiler Inspection Section.

(l) **Data reports.**

(1)(A) A data sheet shall be filled out and signed by the manufacturer and the inspector.

(B) When signing each data report, the manufacturer shall show under his or her signature the expiration date of his or her certificate of authorization to use the ASME symbol.

(C) This data sheet, together with the stamping on the vessel, shall be a guarantee by the manufacturer that he or she has complied with all requirements of the ASME code.

(2)(A) A complete data report shall be furnished with the first internal inspection report on all new boilers and unfired pressure vessels.

(B) At the time of the first inspection, the boiler shall be stamped with a state number preceded by the letters "AR", said letters and figures to be not less than one-fourth inch (1/4") in height.

(C) The stamping shall not be concealed by:

(i) Lagging;

(ii) Covering; or

(iii) Paint.

(D) On high-pressure boilers, the state number shall be attached as close to the code stamping as possible.

(E) On cast iron boilers and boilers (encased), the state number shall be stamped on a metal tag attached to the boiler.

(m) **Inspection of water heating units under 200,000 Btu's required.**

(1) Hot water heating boilers below two hundred thousand British thermal units per hour (200,000 Btu/hr) input located in schools, daycare centers, hospitals, and nursing homes shall be inspected annually as follows:

(A) For gas fired objects, check the flue venting to determine that no deterioration, holes, or obstructions are present that would prevent the escape of all post combustible gasses;

(B) Test the temperature relief valve to verify working status;

(C)(i) Verify that the relief valve discharge line exits the building to an exterior wall and to the outside of the building; or

(ii) The discharge line drains to an interior drain that prevents a release of heated water to come in contact with the public;

(D) Inspect the mechanical room or closet the object is located in to insure there are no hazardous or flammable materials stored or placed in the area;

(E) Check that a carbon monoxide detector is in working order, present within the exterior room that the object is located;

(F) Inspect that a fuel supply cut off valve is present to the object; and

(G) Inspect any electrical connections to the device or area to ensure there are no loose, bare, or hazardous wiring conditions that could create an ignition source or electrical shock.

20 CAR § 880-706. Repairs.

(a) **Major repairs — Notice to Boiler Inspection Section.**

(1)(A) Each person, firm, or corporation licensed to repair boilers shall have a written quality control (Q.C.) program.

(B) The Q.C. program shall be comprised of all planned and systematic actions necessary to provide adequate assurance that the boiler or pressure vessel will be installed or repaired in accordance with the standards adopted pursuant to 20 CAR § 880-701.

(2) All welders and welding operators shall be qualified in accordance to ASME Section IX, Welding and Brazing Qualifications, as adopted by 20 CAR § 880-701.

(3)(A) Each firm or corporation that intends to make weld repairs on boilers or pressure vessels shall submit written documentation to verify that they have a Welding Procedure Specification and Procedure Qualification Record.

(B) Performance qualification documentation is as per ASME Section IX.

(4)(A) The Boiler Inspection Section, either directly or through an authorized inspector, shall be notified of any contemplated major repairs to a boiler or pressure vessel.

(B) The repair firm or corporation as well as the owner or user of the vessel may give the aforementioned notice to the Boiler Inspection Section before repair work is started and after it is completed.

(5) All repairs shall be made to comply with the recommendations and standards specified by the Boiler Inspection Section.

(6)(A) Persons, companies, firms, or businesses that wish to perform repairs or alterations on ASME constructed pressure vessels, or within the vessels' code boundaries, must have in place a written quality control system acceptable to the Boiler Inspection Section, and have authorization from the ASME or the National Board of Boiler and Pressure Vessel Inspectors to perform such repairs or alterations.

(B) In all cases, the Boiler Inspection Section must be notified prior to starting repairs or alterations.

(7)(A) The original construction code of the vessel shall be used for any repairs or alterations.

(B) When this is not possible, it is permissible to use other codes, standards, or specifications, including the ASME code, provided the repair firm has the concurrence of the inspector and the Boiler Inspection Section.

(8)(A) The inspector's authorization to do repairs or alterations must be obtained prior to starting, and this inspector shall do the final acceptance inspection of the repair or alteration.

(B) In all cases, the inspector shall be an employee of the original organization or an inspector authorized by the department.

(b) **Materials and workmanship.**

(1)(A) When repairs of any nature are made on a boiler, the materials used in such repairs shall be only materials recommended by the ASME code for new boilers, and the Boiler Inspection Section shall be furnished with satisfactory evidence that there has been compliance with this requirement.

(B) The workmanship must be of a quality that will pass inspection by an inspector from the Boiler Inspection Section, or by an authorized insurance inspector or approved third-party inspector whose opinion shall be subject to the approval or disapproval of the Chief Inspector of the Boiler Inspection Section.

(2) All welded repairs shall be made to conform to the recommended procedures outlined in the National Board of Boiler and Pressure Vessel Inspectors Inspection Code, as adopted by 20 CAR § 880-701.

(3) No welding of any type shall be performed on any boiler or unfired pressure vessel until permission is granted by the Boiler Inspection Section.

(4)(A) The shell or drum of a boiler in which a typical "lap seam crack" is discovered along a longitudinal riveted joint, either butt joint or lap joint, shall be permanently discontinued for use under pressure.

(B) "Lap seam crack" means the typical crack frequently found in lap seams extending parallel to the longitudinal joint and located either between or adjacent to rivet holes.

(5) The maximum allowable working pressure on a water tube boiler, the tubes of which are secured to cast iron or malleable iron headers or which have cast iron and mud drums, shall not exceed one hundred sixty pounds per square inch (160 psi).

(c) **Repairs – Patch.**

(1)(A) When damage or injury to a boiler is of a nature which apparently necessitates the use of a patch, the Boiler Inspection Section or an authorized inspector shall be consulted before work is started on the patch so that one of the proper design may be prescribed to avoid a possible reduction in the approved pressure.

(B) All patches shall be designed and installed to comply with the applicable National Board of Boiler and Pressure Vessel Inspectors and the ASME requirements and standards, as adopted by 20 CAR § 880-701.

(2) Any person or persons who shall make or cause the repair, installation, or sale of a boiler that does not comply with the standards and rules as set out in this part shall be guilty of a felony, and upon conviction thereof shall be punished by fine in any sum of not less than one hundred dollars ($100) nor more than five hundred dollars ($500), and in addition, may be imprisoned for not more than three (3) years, or both, as provided by Arkansas Code § 20-23-309.

(d) **Tubes.**

(1) When the tubes are removed from any firetube boiler for the purpose of retubing the boiler, the Boiler Inspection Section shall be notified by the owner, user, or the workman performing such work, so that inspection can be made of the internal surface of the shell by a state inspector, approved third-party provider, or an authorized insurance inspector while the tubes are out of the boiler, and the boiler may be approved before new tubes are applied.

(2)Any repair, modification, or replacement shall be in accordance with the applicable ASME requirements and standards ,the NBBI, and inspected in accordance with the standards as adopted by 20 CAR §880-701.

20 CAR § 880-707. Operators and operation.

(a)(1) All power boilers subject to the provisions of Arkansas Code § 20-23-101 et seq., and this part shall be under attendance by a licensed operator whenever they are in use for any purpose.

(2) Boilers that are fired up are considered in use whether steam is being withdrawn or not, unless the boiler is in a building that is not occupied at any time.

(b) Steam boilers fifty (50) horsepower and over, as rated by the manufacturer, and steam boilers used in hospitals, hotels, schools, theaters, and office buildings, but not limited to those, must be under regular attendance by a licensed operator who holds a license issued by the Boiler Inspection Section.

(c) All power boilers and high-pressure/high-temperature water boilers without fully automatic controls shall have a full-time licensed operator while the boiler is in service.

(d)(1) "Operator" means a competent attendant who is familiar with the particular boilers to be operated, and who has received proper instruction in their safe operation.

(2) He or she must also be licensed by the section.

(e) **Operator attendance.**

(1) It should be noted that nothing will replace the need for one (1) or more boiler operators being in attendance when the boilers are in operation.

(2) **High-pressure steam boilers.**

(A)(i) Manual boilers shall be maintained by constant attendance by a boiler operator.

(ii) See definition of constant attendance in 20 CAR § 880-103.

(B)(i) High-pressure steam boilers, which meet CSD-1 recommendations, as adopted by 20 CAR §880-701, for local alarms and safety devices, shall be maintained by regular attendance by a boiler operator.

(ii) See definition of regular attendance in 20 CAR § 880-103.

(C) High-pressure steam boilers, which meet CSD-1 as adopted by 20 CAR §880-701 in subdivisions (e)(2)(A) and (B) of this section, plus have installed remotely actuated alarms to detect low water condition, high pressure, high water condition, loss of operating boiler, etc., shall be maintained by periodic attendance by a boiler operator provided the operator has the prior approval of the Chief Inspector of the Boiler Inspection Section.

(D) High-temperature, high-pressure water boilers fall under the same guidelines as those for high-pressure boilers in subdivisions (e)(2)(A) – (C) of this section.

(E)(i) Remote monitoring for high-pressure boilers (safety valve is set at greater than fifteen pounds per square inch (15 psi) shall only be approved with a formal request, in writing, to the Chief Inspector of the Boiler Inspection Section.

(ii) It must describe the system, the equipment, what is presently installed, and what the plans are for remote monitoring.

(3) **Low-pressure steam, hot water heating, and hot water supply boilers.**

(A)(i) Low-pressure steam boilers shall meet the requirements of CSD-1 for controls, local alarms, and safety devices, as adopted by 20 CAR § 880-701.

(ii) Boiler operator attendance shall be as described for regular attendance, except the time frame shall be expanded to every two (2) hours for inspections and readings.

(iii) This can be extended to four (4) hours by meeting the requirements for periodic attendance of a boiler.

(iv) All readings shall be maintained on a log sheet, either hand written or electronic document with a non-editable time stamp entry, that includes the operating condition of the vessel, input and output pressure reading, the operator name, and initials if hand written or a digital signature stamp if electronically kept.

(v) These records are to be maintained for three (3) years and made available to the Boiler Inspection Section or the authorized inspector upon request.

(B)(i) Hot water heating boilers shall meet the requirements of CSD-1 for controls, local alarms, and safety devices, as adopted by 20 CAR § 880-701.

(ii) Boiler operator attendance shall be a maximum of every twelve (12) hours for inspection and any required readings with the boilers in operation, and more often should there be other extenuating circumstances.

(C)(i) Hot water supply boilers shall meet the requirements of CSD-1 for controls, local alarms, and safety devices, as adopted by 20 CAR § 880-701.

(ii) Boiler operator attendance shall be a maximum of every twelve (12) hours for inspection and any required readings with the boilers in operation, and more often should there be other extenuating circumstances.

Subpart 8. Boilers

20 CAR § 880-801. Generally.

(a)(1) Boilers are vessels in which water is heated and/or steam is generated, and shall be classified as defined by the ASME Boiler Construction Code, as adopted by 20 CAR § 880-701.

(2) All such boilers must be constructed in compliance with the ASME code and be registered with the National Board of Boiler and Pressure Vessel Inspectors.

(b) The factor of safety on all second-hand boilers moved into Arkansas from another state shall be determined at the time of the inspection and a complete report containing all construction data shall be submitted to the Boiler Inspection Section for approval.

(c) Boilers installed after October 1, 1999, should be isolated from employees and the general public with a reinforced concrete block wall of not less than eight inches (8") in thickness, six feet (6') in height, and the length of such wall shall be governed by the size and positioning of the boiler, but should surround the boiler, leaving adequate openings for entry into the boiler space.

(d)(1) The gas train and boiler controls shall comply with ASME CSD-1, as adopted by 20 CAR § 880-701.

(2) All boilers must comply with the National Electrical Code, as adopted by the Board of Electrical Examiners of the State of Arkansas, for disconnect devices.

(e) "State Specials" can be any boiler or fired/unfired pressure vessel of any type or size, which carries neither the ASME symbol nor National Board of Boiler and Pressure Vessel Inspectors stamping, and which has otherwise been proven acceptable to the Chief Inspector of the Boiler Inspection Section and assigned an Arkansas state number.

(f) All steam boilers shall have installed an audible alarm system to work in union with their other operating control devices, unless the boiler is operated under constant attendance by a boiler operator.

20 CAR § 880-802. Heating boilers.

(a) Expansion tanks, feedwater connections, bottom blowoff, safety valves, relief valves, steam gauges, pressure or altitude gauges, and thermometer temperature-combustion regulators shall be defined, constructed, repaired, and inspected in accordance with the adopted ASME code and the applicable NBBI standards as adopted by 20 CAR §880-701.

(b) All feedwater installations should use the ASME Consensus on Operating Practices for the Control of Feedwater and Boiler Water Chemistry as a guide.

(c) Pressure piping shall follow the applicable codes set forth in the ASME code as adopted in 20 CAR §880-701 including the design, materials, fabrication, examination, and testing requirements in ASME B 31.1.

(d)(1) Should a situation arise which is not covered by this part, the ASME code Section One (I) for Power Boilers and Section Four (IV) for Heating Boilers shall be consulted.

(2) Should Section Four (IV) for Heating Boilers not cover the situation, Section One (I) shall be consulted, even though the object may come under Section Four (IV).

20 CAR § 880-803. Miniature boilers.

Miniature boilers shall be defined, constructed, repaired, and inspected in accordance with the adopted ASME code and the applicable NBBI standards as adopted by 20 CAR §880-701.

20 CAR § 880-804. Potable water heater/supply tanks.

(a) **Service restrictions and exceptions.** This section is restricted to potable water heaters and water storage tanks for operation not exceeding one hundred sixty pounds per square inch (160 psi), and water temperatures not in excess of two hundred ten degrees Fahrenheit (210° F), except that water heaters and supply tanks are exempted when none of the following limitations is exceeded:

(1) Heat input less than two hundred thousand British thermal units per hour (200,000 Btu/hr);

(2) Water temperature two hundred ten degrees Fahrenheit (210° F); or

(3) Nominal water-containing capacity of one hundred twenty gallons (120 gals.), except that they shall be equipped with appropriate safety valves.

(b)(1) "Boiler", as defined by Arkansas Code § 20-23-101, means any boiler or like vessel or container in which water is heated and/or steam is generated by the application of heat.

(2) "Hot water heater/boiler" as defined above falls under the authority and responsibility of the Boiler Inspection Section.

(c) **Minimum controls.** All fired storage water heaters and most electric water heaters and supply vessels shall be equipped with the following controls and devices:

(1) Operating temperature control;

(2) High-limit temperature control;

(3) Positive flame failure cutoff; and

(4) Approved pressure temperature relief valve, set at or below the safe working pressure of the vessel, with such setting satisfactory for the application.

(d) **Location.**

(1) All fired/unfired vessels and heaters shall be so located as to provide access to the controls, safety relief valve, and drain.

(2) All vessels shall also be raised sufficiently above the floor level to reduce/prevent rust and corrosion of the bottom and reduce possible early gas ignition from combustible fumes.

(e) **Discharge lines.** When a discharge line from a relief valve is installed, it shall not be reduced, but shall be full size and be piped to a safe location, and installed so that all water will drain from the valve without leaving water trapped in the line or on the valve.

(f) **Relief valve testing.** The operator/owner shall manually test the relief valve semiannually (every six (6) months).

(g) **Alternate use.** Storage water heaters and supply vessels, fired or unfired, shall not be used as a heating boiler.

(h) **Vent pipes.**

(1) All fired heaters shall be equipped with a vent pipe or flue conforming to the requirements of the National Fire Protection Association or manufacturer.

(2) The flue or vent shall terminate at any acceptable location outside the building.

(i) **Shutoff valves.** A shutoff valve shall be provided in the cold water branch line next to each vessel.

(j) **Openings.**

(1) Water heaters, both potable and domestic type, are provided with drain valves and/or removable handhole covers.

(2) The drain should be used to drain the water heater on a regular schedule to keep it as clean internally as possible.

(3) The handhole covers should be removed and the unit cleaned internally on an as-needed schedule.

(k) Certificate inspections are required on hot water heaters located in:

(1) Schools;

(2) Hospitals;

(3) Daycare centers; and

(4) Nursing homes.

Subpart 9. Unfired Pressure Vessels

20 CAR § 880-901. Generally.

(a) Unfired pressure vessels are any pressure vessel constructed for the accumulation, storage, or transportation of air, liquids, or gases that are under induced pressure.

(b) All vessels shall have the following:

(1) The official code symbol;

(2) Name of the manufacturer of the pressure vessel, preceded by the words "Certified by";

(3) Maximum allowable working pressure ___psi at ___° F;

(4) Minimum design metal temperature ___° F at ___ psi;

(5) Manufacturer's serial number _____; and

(6) Year built _____.

(c) The manufacturer's nameplate shall not be permanently covered with any insulating or other material but shall be readily accessible at all times.

20 CAR § 880-902. Manholes and handholes.

All access and inspection openings in a shell or unstayed head shall be designed in accordance with Section VIII Division 1 of the ASME Boiler and Pressure Vessel Code, as adopted by 20 CAR § 880-701.

20 CAR § 880-903. Corrosive substances.

(a) All pressure vessels which are to contain substances having a corrosive action upon the material of which the vessel is constructed, or those subjected to erosion or mechanical abrasion, shall be designed for the pressure they are to carry, and the thickness of all parts subject to corrosion, erosion, or abrasion should be increased by a uniform amount to safeguard against early rejection.

(b)(1) Where a vessel goes into corrosive service without previous service experience, it is recommended that service inspections be made at frequent intervals until the nature and rate of corrosion in service can be definitely established.

(2) The data thus secured should determine the subsequent intervals between service inspections and the probable safe operating life of the vessel.

20 CAR § 880-904. Inspection of inaccessible parts.

(a) Where, in the opinion of the inspector, as the result of conditions disclosed at the time of inspection, it is advisable to remove the interior or exterior lining, covering,

or brickwork to expose certain parts of the vessel not normally visible, the owner or user shall remove such material to permit proper inspection and to establish construction details.

(b) Metal thickness shall be determined utilizing appropriate equipment including drilling if necessary.

20 CAR § 880-905. Pressure relief devices.

Pressure relief devices for each pressure vessel installation shall comply with the requirements of ASME Pressure Vessel Code Section VIII Division I, as adopted.

20 CAR § 880-906. Repairs and renewals of fittings and appliances.

(a) All repairs and alterations shall be made by a person or company in possession of a repair license from the Boiler Inspection Section.

(b) All cases not specifically covered by this subpart shall be treated as new installations, or may be referred to the Chief Inspector of the Boiler Inspection Section for instructions concerning the requirements.

(c)(1) The maximum allowable working pressure of an ASME vessel shall be determined by the nameplate information and/or the data report.

(2) Rerating of a pressure-retaining item by increasing the maximum allowable working pressure (internal or external) or temperature, or decreasing the minimum temperature such that mechanical tests are required, shall be done only with prior approval of the Chief Inspector and to the original issue/addenda of the code of construction.

(d) For information concerning noncode pressure vessels, refer to the ASME Code Section VIII Division I, as adopted.

(e) All repairs or alterations shall be made by a person or company that has all required state and national commissions or certifications and in accordance with the ASME Boiler and Pressure Vessel Code, as adopted by 20 CAR §880-701.

Subpart 10. Anhydrous Ammonia

20 CAR § 880-1001. General provisions.

(a) Applicable ASME standards for anhydrous ammonia systems, including design codes adopted in 20 CAR §880-701, minimum standards ASME B31.4 for piping, and ASME B&PV Code (Section VIII) for pressure vessels shall be followed for installation, inspection, testing, and maintenance.

(b) The minimum standards for storage and handling of anhydrous ammonia shall be the American National Standards Institute (ANSI), CGA G-2.1 Safety Requirements for the Storage and Handling of Anhydrous Ammonia, 2023 edition, which is adopted by reference and incorporated herein.

20 CAR § 880-1002. License requirement.

(a) Every manufacturer, jobber, or dealer selling or offering for sale in the State of Arkansas containers used for the storage, transportation, and dispensing of anhydrous ammonia shall be licensed by the Boiler Inspection Section in compliance with Arkansas Code § 20-23-405 and 20 CAR § 880-401 et seq., which states all persons, firms, or corporations engaged in the sale and/or installation of unfired pressure vessels shall be licensed by the section to perform such work and hold the appropriate NBBI commission if required.

(b) A fee of $30.00 shall be paid before permits may be issued for the installation of any unfired pressure vessel.

(c) A license may be revoked as provided in 20 CAR § 880-401 et seq.

(d)(1) It shall be unlawful to fill any container requiring annual inspections with anhydrous ammonia when such container is over thirty (30) days past due annual inspection.

(2) Any dealer filling such container may be subject to license revocation.

20 CAR § 880-1003. Design and construction.

(a)(1) Vessels used for storage and dispensing of liquid fertilizer shall be constructed to comply with the provisions of Section VIII, of the adopted ASME Boiler Code.

(2) All containers shall be constructed for a safe working pressure of not less than two hundred fifty pounds per square inch gauge (250 psig) with minimum head and shell thickness of not less than three-sixteenths inch (3/16”).

(3) All trucks and transports used for the transportation of anhydrous ammonia shall be constructed for a safe working pressure of not less than two hundred sixty-five pounds per square inch gauge (265 psig) and in compliance with Section VIII of the ASME code.

(b) In addition to the above requirements, all anhydrous ammonia containers to be used for storage purposes, thirty-six inches (36”) in diameter or larger, and all vessels mounted on transport trucks, delivery trucks, and trailer units, regardless of size, shall be constructed to comply with either of the following requirements:

(1) Stress relieve the container after fabrication in accordance with the ASME code, Par. UW-40, Sub-par. (1) or (2);

(2) Stress relieve cold formed heads in an approved manner; and

(3) Used not formed heads.

(c)(1) It is strongly recommended that vessels of this type be stress relieved.

(2) All such containers shall be stamped “National Board” at the time of construction.

(3) Blueprints showing the type or types of all containers shall be filed with the Boiler Inspection Section for approval before shipment of any container into the state.

(d) Shop inspections shall be made of all containers during construction by a duly authorized inspector who holds a National Board of Boiler and Pressure Vessel Inspectors commission, and who is employed by an insurance company, or authorized third-party inspection service.

(e) All containers shall have the manufacturer’s nameplate, firmly attached to the container, designating:

(1) Manufacturer's serial number;

(2) National Board of Boiler and Pressure Vessel Inspectors number;

(3) Year built;

(4) Diameter;

(5) Length;

(6) Shell and head thickness;

(7) Capacity in water gallons;

(8) Pounds; and

(9) Surface area of vessel in square feet.

(f)(1) All containers, except storage tanks, shall be fully equipped with the required fittings by the manufacturer and shall be tested under air pressure of not less than one hundred pounds per square inch gauge (100 psig) before delivery to the user.

(2) Air pressure of not less than twenty-five pounds per square inch gauge (25 psig) or more than seventy-five pounds per square inch gauge (75 psig) shall be left in the container when shipment is made into the state by the manufacturer or jobber, and this information shall be included in the report of shipment provided for in subsection (g) of this section.

(g)(1) Manufacturers and jobbers shall forward to the Boiler Inspection Section notice of shipment and manufacturer's data report on the same day that shipment of containers is made in the state.

(2) Manufacturers and jobbers shall not sell containers to individuals.

(3) They shall sell containers and equipment to bonded and licensed dealers only.

(h) Each container which is to be used for the transportation or utilization of anhydrous ammonia shall be inspected and approved by the Boiler Inspection Section at the dealer's place of business before being placed in service, and thereafter at such times and in such manner as may be determined under the rules of the Department.

(i)(1) The Boiler Inspection Section shall notify all dealers when annual inspections will be made of their equipment requiring annual inspections, and it will be the dealer's

responsibility to have all trailers and/or transports at his or her place of business in order that all equipment may be inspected.

(2) Dealers will notify their customers who own their own containers of the date the inspector will be at the dealer's place of business.

(j)(1) All containers used for the storage and all transports and trailer units used for the delivery of anhydrous ammonia shall be inspected annually.

(2) For each inspection made by the Boiler Inspection Section, there shall be paid a fee of $15.00 for all inspections including all containers used for dispensing purposes which are mounted on field tractors.

(k) Owners of all types of anhydrous ammonia vessels shall be responsible for the inspection fees.

20 CAR § 880-1004. Container valves and accessories.

(a)(1) Couplings and external flanges used on any container shall be welded both inside and outside.

(2) The use of nipples in lieu of couplings or flanges is prohibited.

(3) All couplings, piping, and valves shall be wrought iron or steel.

(4) The use of cast iron, copper, brass, or galvanized fittings is prohibited.

(b)(1) All containers shall be equipped with necessary safety relief valves, filler valves, vapor return valves, liquid level gauge, outage gauge, and a pressure gauge graduated from zero (0) to four hundred (400).

(2) The vapor return valve, filler valve, and liquid outlet valve shall be equipped with excess flow check valves.

(3) It is not required that dispensing units be equipped with excess flow check valves in the liquid outlet.

(4) Safety relief valves shall have direct communication with the vapor space of the container.

(c)(1) All fittings to be attached to an anhydrous ammonia container of any type (liquid or vapor) shall be approved for use with anhydrous ammonia and designed for not less than the maximum pressure to which they may be subjected.

(2) Valves which may be subjected to container pressure shall have a rated working pressure not less than two hundred fifty pounds per square inch gauge (250 psig).

(d) All connections to containers, except safety relief connections and gauging devices, shall have shutoff valves located as close to the container as possible.

(e) Liquid level gauging devices which are so constructed that outward flow of container content shall not exceed that passed by a No. 54 drill size opening, need not be equipped with excess flow valve.

(f) Openings from the container or through fittings attached directly on container, to which pressure gauge connection is made, need not be equipped with excess flow valve if such openings are protected by not larger than No. 54 drill size openings.

(g) All excess flow valves shall be plainly and permanently marked with the:

(1) Name or trademark of the manufacturer;

(2) Catalog number; and

(3) Rated capacity.

(h) Excess flow valves shall close automatically at the rated flows of vapor or liquid as specified by the manufacturer, and shall be set to close at not more than eighty percent (80%) of the maximum capacity of the normal pipe size into which they are discharging at sixty pounds (60 lbs.) container pressure.

(i)(1) Excess flow and back-pressure check valves shall be located inside the container or at a point outside where the line enters the container.

(2) In the latter case, installation shall be made in such a manner that any undue strain, beyond the excess flow or back-pressure check valve, will not cause breakage between the container and the valve.

(j) Each filling connection or valve shall be fitted with one (1) of the following:

(1) Combination back-pressure check valve and excess flow valve;

(2) One (1) double or two (2) single back-pressure check valves; or

(3) A positive shutoff valve, in conjunction with either:

(A) An internal back-pressure valve; or

(B) An internal excess flow valve.

(k) Excess flow valves shall be designed with bypass, not to exceed a No. 60 drill size opening to allow equalization of pressures.

20 CAR § 880-1005. Piping, tubing, and fittings.

(a)(1) All fittings where subjected to container pressure shall be made of materials specified for use with anhydrous ammonia as described herein and designed for a minimum working pressure of not less than two hundred fifty pounds per square inch gauge (250 psig).

(2) No cast iron bushings, plugs, or pipe fittings shall be allowed.

(b)(1) Galvanized pipe shall not be used.

(2) Black steel or iron pipe, Schedule 40, may be used provided pipe joints are welded or joined by means of welding type flanges.

(3) Screwed joints are permissible only with extra heavy, Schedule 80, pipe.

(4) Pipe joint compounds shall be resistant to ammonia.

(c)(1) All pipe lines shall be installed as nearly as possible in a straight line with a minimum amount of pipe, and shall not be restricted by an excessive amount of elbows and bends.

(2) Where nipples are used, they shall be of extra heavy seamless type.

(d)(1) Flexible connections with a bursting pressure of not less than one thousand seven hundred fifty pounds per square inch gauge (1,750 psig) shall be used for a permanent installation.

(2) Other type flexible connections may be used for temporary installation.

(3) Provisions shall be made for:

(A) Expansion;

(B) Contraction;

(C) Jarring;

(D) Vibration; and

(E) Settling.

(e) Adequate provisions shall be made to protect all exposed piping from physical damage that might result from moving machinery, automobiles, or trucks, or any other undue strain that might be placed upon the piping.

(f)(1) After assembly, all piping and tubing shall be tested and proved to be free from leaks at a pressure not less than the normal operating pressure of the system, or at one hundred fifty pounds per square inch gauge (150 psig), whichever is greater.

(2) All containers shall be purged of air on initial filling.

20 CAR § 880-1006. Hose specifications.

(a) Hose and hose connectors shall be fabricated of materials that are resistant of the action of anhydrous ammonia.

(b)(1) Hoses subject to container pressure shall be designed for a minimum bursting pressure of one thousand seven hundred fifty pounds per square inch gauge (1,750 psig).

(2) Hose assemblies, when made up, shall be capable of withstanding a test pressure of not less than five hundred pounds per square inch gauge (500 psig).

(c)(1) Hose and hose connections located on the low-pressure side of flow control or pressure reducing valves or devices shall be designed for a minimum bursting pressure of one hundred twenty-five pounds per square inch gauge (125 psig).

(2) All connections shall be designed, constructed, and installed so that there will be no leakage when connected.

(d)(1) Where hose is to be used for transferring liquid, wet hose is recommended.

(2) Such hose shall be equipped with an approved shutoff valve at the discharge end.

(3) A safety relief valve shall be installed between the hand shutoff valves as near the containers as possible.

(4) The start-to-discharge pressure of such relief valve shall not be less than two hundred forty pounds per square inch gauge (240 psig) and not in excess of three hundred twelve pounds per square inch gauge (312 psig).

(e) On all hose one-half inch (1/2") I.D. and larger, used for the transfer of anhydrous ammonia liquid or vapor, there shall be etched, cast, or impressed on the hose at five-foot intervals or on a nameplate permanently attached thereto, the following information:

"Anhydrous Ammonia"
Bursting Pressure
Manufacturer's Name or Trademark
Year of Manufacture

20 CAR § 880-1007. Safety devices.

(a)(1) Every container used for anhydrous ammonia shall be provided with one (1) or more safety relief valves of spring-loaded type.

(2) The discharge from safety relief valves shall be directed away from the container upward and unobstructed to the open air.

(3) The rate of discharge shall be in accordance with the provisions of the flow chart in this subpart, 20 CAR § 880-1113.

(b) Container safety relief valves shall be set to start-to-discharge as follows, with the relation to the design pressure of the container:

Containers	Minimum	Maximum
ASME 1949 or earlier Edition	100%	125%
ASME 1959 or earlier Edition	80%	100%

(c)(1) Safety relief valves used on containers or systems as outlined in this part shall be constructed to discharge at the rates required in subsection (b) of this section.

(2) The design of these valves must ensure such discharge before the pressure exceeds one hundred twenty percent (120%) of the maximum start-to-discharge pressure setting.

(d)(1) Safety relief valves shall be so arranged that the possibility of tampering will be minimized.

(2) If the pressure setting adjustment is external, the relief valves shall be provided with approved means for sealing the adjustment.

(3) Shutoff valves shall not be installed between the safety relief valves and the container.

(e) Each safety relief valve shall be plainly and permanently marked as follows:

(1) With the letters "AA";

(2) The pressure in pounds per square inch gauge (psig) at which the valve is set to start-to-discharge;

(3) The rate of discharge of the valve at its full open position in cubic feet per minute of air at sixty degrees Fahrenheit (60° F) and atmospheric pressure; and

(4)(A) The manufacturer's name and catalog number.

(B) For example, a safety relief valve marked AA-250-4050 (air) would mean that:

(i) This valve is suitable for use on an anhydrous ammonia container;

(ii) It is set to start-to-discharge at two hundred fifty pounds per square inch gauge (250 psig); and

(iii) Its rate of discharge at full open position is four thousand fifty cubic feet (4,050 ft^3) per minute of air.

(f) Connections such as couplings, flanges, nozzles, and discharge lines for venting, to which relief valves are attached, shall have internal dimensions of sufficient size to avoid any restrictions of flow through the relief valves.

(g)(1) A safety relief valve venting to atmosphere at a safe location shall be installed between each pair of shutoff valves in an ammonia line where liquid may be trapped.

(2) The start-to-discharge pressure of such relief valves shall not be less than two hundred forty pounds per square inch gauge (240 psig), and not in excess of three hundred pounds per square inch gauge (300 psig).

(3) Discharge from safety relief devices shall not terminate in or beneath any building.

(h) Any type fitting or hose that proves to be unsatisfactory and does not function in a safe and proper manner shall be condemned and the further use of such hose or fitting shall be prohibited.

20 CAR § 880-1008. Transfer of liquids.

(a) At least one (1) attendant shall supervise the transfer of liquids from the time the connections are first made until they are finally disconnected.

(b)(1) Containers shall be filled or used only upon authorization of owner.

(2) Containers shall be gauged and charged only in the open air or in buildings especially provided for that purpose.

(c) Pumps used for transferring ammonia shall be recommended and labeled for ammonia service by the manufacturer.

(d) Liquid pumps may be of piston, rotary, centrifugal, or regenerative type, designed for not less than two hundred fifty pounds per square inch gauge (250 psig) working pressure.

(e)(1) Positive displacement pumps shall have, installed off the discharge port, a constant differential relief valve discharging through a line of sufficient size to carry the full capacity of the pump at relief valve setting.

(2) This setting and installation shall be according to pump manufacturer's recommendation.

(f) On the discharge side of the pump, before the relief valve line, there shall be installed a pressure gauge graduated from zero pounds per square inch gauge (0 psig) to four hundred pounds per square inch gauge (400 psig).

(g) Centrifugal or regenerative pumps do not require a bypass relief valve, but the installation shall incorporate a line from the discharge side of the pump to the vapor space of the supplying tank and in this line, at accessible level, must be installed a shutoff valve.

(h) Shutoff valves shall be installed within three feet (3') of the inlet of the pump and within two feet (2') of the discharge.

(i) Compressors used for transferring and refrigerating ammonia shall be recommended and labeled for ammonia service by the manufacturer.

(j) Compressors may be of reciprocating or rotary type designed for not less than two hundred fifty pounds per square inch gauge (250 psig) working pressure.

(k) Plant piping shall contain shutoff valves located as close as practicable to compressor connections.

(l)(1) A relief valve large enough to discharge the full capacity of the compressor shall be connected to the discharge before any shutoff valve.

(2) The discharging pressure of this valve shall not exceed three hundred pounds per square inch gauge (300 psig).

(m) Compressors shall have pressure gauges graduated from zero pounds per square inch gauge (0 psig) to four hundred pounds per square inch gauge (400 psig) as suction discharge.

(n) Adequate means, such as a drainable liquid trap, shall be provided on the compressor suction to minimize the entry of liquid into the compressor.

(o) The pipe line to which the loading or unloading hoses are connected shall be equipped with a backflow check valve or excess flow check valve to prevent discharge of ammonia from the containers and the line in case of hose or fitting failure.

20 CAR § 880-1009. Liquid level gauging devices.

(a) Each container, except containers covered by United States Department of Transportation regulations, shall be equipped with a liquid level gauging device of approved design.

(b) All gauging devices shall be arranged so that the maximum liquid level to which the container may be filled is readily determinable.

(c)(1) Gauging devices that require bleeding of the product to the atmosphere, such as the rotary tube, fixed tube, and slip tube, shall be so designed that the bleed

valve maximum opening is not larger than a No. 54 drill size, unless provided with an excess flow valve.

(2) **Exception.** Applicator tank may have bleed valve not more than five-sixteenths inch (5/16") in diameter.

(d) Gauging devices shall have a design working pressure of at least two hundred fifty pounds per square inch gauge (250 psig).

(e)(1) Fixed liquid level gauges shall be so designed that the maximum volume of the container filled by liquid shall not exceed eighty-five percent (85%) of its water capacity.

(2) The coupling into which the fixed liquid level gauge is threaded must be placed at the eighty-five percent (85%) level of the container.

(3) If located elsewhere, the dip tube of this gauge must be installed in such a manner that it cannot be readily removed.

(f)(1) Gauge glasses of the columnar type shall be restricted to bulk storage installations.

(2) They shall be equipped with valves having metallic handwheels, with excess flow valves, and with extra heavy glass adequately protected with a metal housing applied by the gauge manufacturer.

(3) They shall be shielded against the direct rays of the sun.

20 CAR § 880-1010. Bulk storage.

(a) The following apply to location, assembling, painting, and protection of bulk storage plants:

(1) No storage container shall exceed thirty thousand (30,000) water-gallon capacity, nor shall any anhydrous ammonia container be buried underground;

(2) Before any storage container may be installed, the location must be checked and approved by a representative of the Boiler Inspection Section; and

(3) Bulk storage containers should be equipped with approved type manifold safety relief valves.

(b)(1) Containers used for the storage of anhydrous ammonia shall be located not less than fifty feet (50') from the nearest important building or group of buildings or line of adjoining property which may be built on.

(2) They shall be located not less than fifty feet (50') from the main line or passing track of a railroad or public highway.

(3) Waiver of this requirement may be made by the Chief Inspector of the Boiler Inspection Section providing no undue hazards exist, but in no case shall they be located closer than twenty-five feet (25'), and in no case shall they be located closer than four hundred feet (400') from any school, hospital, church, or other place of public assembly.

(c) Permits for the installation of any storage container must be obtained before installations are made.

(d)(1) Storage containers shall be provided with substantial reinforced concrete footings and foundations, or structural steel supports mounted on reinforced concrete foundations.

(2) In either case, the reinforced concrete foundations must be below the established frost line, and in no case less than twenty-four inches (24") below the ground level, and shall be of sufficient width and thickness to support adequately the total weight of the container and contents.

(3) Every container shall be mounted on saddles in such a manner as to permit expansion and contraction, and shall be so supported to prevent the concentration of excessive loads on the supporting portion of the shell.

(4) Suitable means of preventing corrosion shall be provided on that portion of the container in contact with the foundation or saddles.

(5) There shall be a resilient cushion of road expansion, or other suitable material, with a thickness of not less than one-half inch (1/2") placed between the saddle and tank to allow for minor imperfections in pier surface to protect the tank from corrosion and to act as a lubricant in tank expansion.

(6) That portion of the tank surface that is to be in contact with the pier or saddle shall be painted with at least two (2) coats of approved primer before installing on the supports.

(7) Blueprints or approved-type footings and foundations may be obtained from the Boiler Inspection Section upon request.

(e)(1)(A) Containers shall be equipped with the necessary fittings and piping as outlined herein.

(B) **Exception.** Installation of fifteen percent (15%) outage gauge not required.

(2) The safety relief valve shall discharge upward and away from the container.

(3) Loose-fitting rain caps shall be used.

(4) If riser pipes are used they:

(A) Shall not be attached to the shell by the use of clip angles or brackets; or

(B) May be supported by the use of guy wires.

(5) Any method of attaching risers to relief valves that does not induce any undue stress to the relief valve itself will be acceptable to the Boiler Inspection Section.

(6) Size of discharge lines from safety relief valves shall not be smaller than the normal size of the relief valve outlet connection.

(7) Suitable provision shall be made for draining condensate which may accumulate in the discharge pipe.

(8) The vapor return valve on all storage containers exceeding one thousand two hundred (1,200) water-gallon capacity shall be not less than one and one-fourth inches (1 1/4") standard pipe size.

(9) Each container shall be effectively grounded.

(10) Stop valves, where required, shall be installed as near the outlet opening in the container as possible.

(11) Piping from the excess flow check valves shall not be reduced in size.

(12) Any portion of the piping between the tank and the pump inlet which at any time may be closed at both ends shall be provided with a relief valve to prevent excessive pressure developing in the hose or piping.

(f)(1) Containers shall be painted at the time of installation with a light-colored, heat-reflective paint, equivalent to white or aluminum paint, and shall have the words "DANGER - AMMONIA" or "CAUTION - AMMONIA" painted on both sides and heads in red letters at least six inches (6") in height.

(2) The owner's name and address and owner's number shall be painted on at least one (1) side of the container in letters not less than two inches (2") in height.

(3) Containers shall be protected or enclosed by a steel or wire fence, or provisions shall be made for locking the service line valves at the container.

(4) Where a steel or wire fence is used, there shall be two (2) means of exit, located preferably at the front and rear of the fence.

(5) Such exits shall be of a size that will easily and quickly admit one (1) or more persons.

(6) The premises around the container shall be maintained in good order.

(7) Combustible material of any type shall not be allowed to accumulate near the container.

(g)(1) Provisions shall be made at bulk storage tanks to have the following articles available for use and protection of employees:

(A) Goggles;

(B) Rubber gloves; and

(C) Rubberized aprons or slickers.

(2) There shall also be available an ample supply of clean water located so that in the event leaks should occur in the piping or containers, the water facilities will not be rendered inoperative.

(h)(1) Railway tank cars shall not be considered as bulk storage, and the transferring of anhydrous ammonia from railway tank cars to truck or trailer units is prohibited.

(2) Trailer units shall be filled at designated bulk storage plants constructed and equipped as outlined herein.

20 CAR § 880-1011. Farm trailers.

(a)(1) The following applies to the construction, assembly, and painting of tanks mounted on four-wheeled trailers of the farm type used in transporting ammonia from bulk storage plants to the farm, commonly called farm trailers.

(2) Such tanks shall not exceed one thousand two hundred (1,200) water-gallon capacity.

(b) Blueprints of the design, showing location of fittings and method of protection of the fittings, shall be submitted to the Boiler Inspection Section for approval before vessels are fabricated for shipment into the state.

(c)(1) Farm trailer tanks shall be equipped with the necessary fittings as outlined herein.

(2) Fittings installed in the top portion of the shell shall be located in the center of the container and shall be adequately protected from physical damage by means of a rigid guard securely fastened to the container.

(3) The guard shall be so designed as to give a rolling effect to the container in the event the trailer overturns.

(4) The guard shall also be designed to give a skid effect in the event the trailer overturns and continues to move forward.

(5) Fittings installed in the rear head of the container shall be protected with a permanent fixture without hinges of a material the same tensile strength as the container itself, and a thickness of not less than three-eighths inch (3/8”).

(6) The safety relief valves shall have direct communication with the vapor space of the container and shall be protected from rain and snow with a loose-fitting covering.

(d)(1) Dip tubes shall be provided for the safety valve, vapor valve, filler valve, vapor gauge, and fifteen percent (15%) outage gauge.

(2) They shall consist of heavy duty piping curved or bent without cutting and welding.

(3) Dip tubes for safety valves, vapor valves, and vapor gauge shall extend up into the vapor space of the container not less than three-fourths inch (3/4") from top of the container.

(4) The dip tube for the outage gauge shall extend up to a point in the container which will indicate the presence of liquid when the container is not more than eighty-five percent (85%) full.

(5) Dip tubes for filler valves shall extend to within not less than three-fourths inch (3/4") from the bottom of the container.

(6) All dip tubes shall be screwed directly into the coupling not less than five (5) full threads and seal welded.

(7) They shall also be firmly anchored at point of termination with a bracket and clamp.

(8) Provision shall be made for the expansion or contraction of the bracket or clamp in the event of any out-of-roundness of shell plate.

(e)(1) All containers shall be equipped with suitable baffle plates which will eliminate the surging of the liquid in the container when the trailer is in motion and when making sudden stops.

(2) Baffle plates shall be attached in such a manner as to allow for any expansion or contraction of shell plates under internal pressure due to any out-of-roundness.

(f) Four-wheeled trailers shall be of a type construction which will prevent the towed vehicle from whipping or swerving from side to side in a dangerous or unreasonable manner but will enable it to follow substantially in the path of the towing vehicle.

(g) All trailers shall be firmly and securely attached to the vehicle drawing them by means of drawbars of the pintle-hook type, equipped with a positive locking device which will prevent separation of the two (2) units, and supplemented by suitable safety chains.

(h) All trailers shall be equipped with axle and wheel assemblies of sufficient size to support the weight of the container and contents adequately and safely when loaded to capacity.

(i) All containers shall be mounted on trailers in such a manner that the bottom of the container will be as close to the ground level as possible, but in no case shall they be over thirty-six inches (36") above ground level.

(j) Containers shall be painted with a light-colored, heat-reflective paint, equivalent to white or aluminum paint, and shall have painted on the sides and rear head the words "DANGER - AMMONIA" or "CAUTION - AMMONIA" in red letters at least six inches (6") in height.

(k) The owner's name and address and owner's number shall be painted on at least one (1) side of the container in letters not less than two inches (2") in height.

(l)(1) Containers used for the storage or transportation of anhydrous ammonia shall not be used for any other purpose.

(2) The filling of containers of this type with liquefied petroleum gases is strictly forbidden.

20 CAR § 880-1012. Dispensing units.

(a) All containers mounted on tractors used for dispensing anhydrous ammonia shall be equipped to comply with the rules as described in 20 CAR § 880-1104 with the exception of the requirement for the excess flow check valve in the liquid outlet and the vapor return valve.

(b) Containers used for dispensing purposes shall not exceed two hundred fifty (250) water-gallon capacity and comply with the applicable section or sections of the ASME, ANSI, CGA G 2.1, and the NBBI code as adopted in 20 CAR 880-701.

Subpart 11. Pressure Piping

20 CAR § 880-1101. General provisions.

(a) The requirements of this subpart refer only to system piping connecting to the external limits that comply with the applicable section or sections of the ASME, ANSI and the NBBI code as adopted in 20 CAR §880-701.

(b) ASME B31.1, as adopted, is the accepted code which prescribes the minimum requirements for the designing materials, erection, test, and inspection of power and auxiliary service piping systems for:

(1) Electric generation stations;

(2) Industrial and institutional plants;

(3) Central and district heating plants; and

(4) District heating systems.

20 CAR § 880-1102. Qualifications and license.

(a) All persons, firms, or corporations engaged in the fabrication or installation of pressure piping must be licensed by the Boiler Inspection Section prior to performing the work as required by Arkansas Code § 20-23-405 and 20 CAR § 880-401 et seq.

(b) The pressure piping license shall consist of an endorsement to a valid license issued by the section.

(c) There will be no additional fee for the endorsement.

20 CAR § 880-1103. Installation permit.

(a) Prior to the installation or the movement of pressure piping, a permit must be obtained from the Boiler Inspection Section.

(b) One (1) application is required for each installation regardless of the size of the installation.

(c) The fee for the permit shall be one hundred dollars ($100).

20 CAR § 880-1104. Inspections.

(a) All examinations, inspections, and testing shall be performed in accordance with ASME B31.1, as adopted, with regard to frequency and manner.

(b) The owner shall be responsible for all examinations and inspections whether or not the owner performs the examinations and inspections himself or herself.

(c) The examinations and inspections shall be performed by an authorized inspector.

(d) Verification must be reported to the Boiler Inspection Section after the work is completed and prior to the installation becoming operational.

Subpart 12. Owner – User Program

20 CAR § 880-1201. Owner/user certification.

(a) Any owner of a boiler or pressure vessel who also uses and operates the boiler or vessel may apply for certification under this subpart.

(b) Upon receiving an owner/user certification from the Boiler Inspection Section, an owner/user of a boiler or pressure vessel may perform any inspection required by Arkansas Code § 20-23-101 et seq., and this subpart, on such vessels owned and operated by them, with the exception of the initial installation inspection.

(c) The owner/user must first meet the requirements prescribed by this subpart.

20 CAR § 880-1202. Inspectors.

An owner/user must employ boiler inspectors holding a current, valid owner/user commission issued by the National Board of Boiler and Pressure Vessel Inspectors.

20 CAR § 880-1203. Certification by the National Board of Boiler and Pressure Vessel Inspectors required.

(a) Before receiving certification by the Boiler Inspection Section, an owner/user must first receive an owner/user certification from the National Board of Boiler and Pressure Vessel Inspectors.

(b) Subsequent to certification from the National Board of Boiler and Pressure Vessel Inspectors, the section shall inspect all boilers to be covered under the owner/user program and shall conduct an onsite review of the owner/user program before issuing a certification under this subpart.

(c) The section may audit the owner/user's quality system at any time for just cause or upon request of the owner/user or the National Board of Boiler and Pressure Vessel Inspectors.

(d)(1) The National Board of Boiler and Pressure Vessel Inspectors Inspection Code Committee may at any time change the rules for the issuance of owner/user certificates.

(2) All owners/users holding operating certificates from the section must adhere to the most current rules.

20 CAR § 880-1204. General requirements.

(a)(1) An owner/user holding a certificate issued by the National Board of Boiler and Pressure Vessel Inspectors Inspection Code Committee and certification under this subpart may perform in-service inspections and certification of pressure-retaining items owned/operated by them if such inspections are within the scope of the owner/user program as outlined in the owner/user's quality control manual.

(2) However, the initial inspection upon any pressure-retaining vessel shall be performed by the Boiler Inspection Section.

(b)(1) A certified owner/user may perform authorized, in-process, and acceptance inspections, including signing the National Board of Boiler and Pressure Vessel Inspectors Inspection Code report forms, associated with repairs and alterations of pressure-retaining items owned and operated by the owner/user.

(2) This includes repairs and alterations performed by an owner or user holding an "R" Certificate or by other "R" Certificate holders performing work on pressure-retaining items owned/operated by the owner/user.

(3) A description of the process for performing these inspections must be included in the quality system written program and included with the application for certification by the section.

(c)(1) All welded repairs and/or alterations shall be documented on appropriate forms and distributed to the section.

(2)(A) All repairs or alterations shall be made to the original code of construction.

(B) If this is not possible or practical, the National Board of Boiler and Pressure Vessel Inspectors Inspection Code, as adopted, shall be followed.

(d) The owner/user must maintain on the premises where the pressure vessel is located:

(1) A current edition and any addendums of the National Board of Boiler and Pressure Vessel Inspectors Inspection Code;

(2) The Arkansas laws and rules governing boiler and pressure vessel inspection; and

(3) The appropriate sections of the American Society of Mechanical Engineers code (ASME).

20 CAR § 880-1205. Operations requirements.

(a) Owners/users certified by the Boiler Inspection Section pursuant to this subpart must possess a National Board of Boiler and Pressure Vessel Inspectors "R" stamp before making welded repairs or alterations.

(b) A copy of any form required for a welded repair or alteration by the National Board of Boiler and Pressure Vessel Inspectors shall be provided to the section.

(c) It shall be the responsibility of the owner/user to ensure all required applications to install pressure-retaining items or pressure piping or other installation permits and license requirements are met, prior to starting any work.

(d) The section shall be notified and a report filed when objects that require licensing or operating certificates are removed from service.

(e) Inspection of objects requiring operating certificates shall be conducted within sixty (60) days of the due date.

(f) The department reserves the right to inspect objects that are overdue more than sixty (60) days.

(g)(1) Boilers must be inspected internally and externally at least once each year.

(2) The inspection should be made during the same calendar month each year if possible.

(h) Unfired pressure vessels shall be inspected biennially, externally and internally, where conditions permit.

(i)(1) The inspector employed by the owner/user and commissioned by the National Board of Boiler and Pressure Vessel Inspectors and the section is expected and required by law to shut down equipment that is determined to be a public hazard.

(2) The department and Chief Inspector of the Boiler Inspection Section shall be advised should this be necessary.

(j)(1) Explosions and accidents must be reported to the section within twenty-four (24) hours of any occurrence, except that any explosion or accident that involves loss of life or serious injury shall be reported immediately.

(2) An investigation report shall be filed with the section.

(3) The Director of Code Enforcement and the Chief Inspector shall be kept informed of the status and all changes.

(k) Equipment that has been shut down because it is a public hazard will not be returned to service until:

(1) Repairs have been satisfactorily made;

(2) Equipment is no longer deemed to be a hazard; and

(3) The section has been informed of the nature and extent of repairs.

(l) Explosions and accidents shall be reported immediately if possible, or as soon as practicable, especially those which involve loss of life or serious injury.

(m)(1) New or used objects to be installed require proper identification.

(2) A data report for each object shall be forwarded to the section office when requesting an installation permit.

(n)(1) The section will complete the first inspection upon new and newly installed objects, unless an Arkansas "AR" number has already been assigned to the object.

(2) The owner/user should contact the section with all appropriate data and request an installation permit.

(3) Upon receipt of the request for an installation permit, a state inspection will be scheduled.

(4) Each object installed which comes under the law, and is not already registered with the section, shall have a metal tag with identifying numbers preceded by "AR" attached to it.

(o)(1) All boilers and pressure vessels installed or to be installed in any location within the State of Arkansas shall be constructed to a code that has been adopted by or is acceptable to the Chief Inspector and the section.

(2) They shall also be registered with the National Board of Boiler and Pressure Vessel Inspectors.

(p)(1) All new and used boilers and pressure vessels installed or to be installed within the State of Arkansas shall be properly identified.

(2) Application for installation of said vessels shall be accompanied by a manufacturer's data report that verifies its construction.

(q) All installations of new or used vessels may only be performed by installers licensed by the section pursuant to Arkansas Code § 20-23-401, and the owner/user must also comply with Arkansas Code §§ 20-23-307, 20-23-308, and 20-23-309.

(r)(1) All new and used objects to be installed shall be properly identified.

(2) Each object shall have a legible nameplate installed.

(3) This nameplate data shall be furnished to the division with the request for installation permit.

(s) Should this subpart not cover needed areas of inspection, repairs, or other information which may be required, refer to other applicable rules herein.

20 CAR § 880-1206. Fees.

(a)(1) The owner/user self-inspection program shall be inspected and qualified by a state approved third-party inspection service or insurance inspector that is commissioned by the state and National Board of Boiler and Pressure Vessel Inspectors to perform these reviews before any owner/user self-inspection program will be recognized and issued a certificate by the Section.

(2) All inspection and qualification documents shall be submitted to the Boiler Inspection Section at the time of application and updated annually at the time of certificate renewal.

(b) A copy of the inspection shall be submitted to the Department within thirty (30) days of completion of the inspection.

20 CAR § 880-1207. Revocation.

(a) A certificate received pursuant to this subpart will be automatically revoked if, for any reason, the owner/user's certification by the National Board of Boiler and Pressure Vessel Inspectors is revoked.

(b) If periodic inspections of pressure-retaining vessels are not performed in a timely manner, the owner/user may be subject to revocation of the license issued by the Boiler Inspection Section.